TREATY EXPRESSIONS OR CONTRACT OBLIGATIONS: HOW TREATIES DO OR DO NOT MITIGATE CONFLICT

by

Cole Mushegan

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TREATY EXPRESSIONS OR CONTRACT OBLIGATIONS: HOW TREATIES DO OR DO NOT MITIGATE CONFLICT

Project Approved:

Supervising Professor: Eric Cox, Ph.D.

Department of Political Science

James Scott, Ph.D.

Department of Political Science

Stephen Quinn, Ph.D.

Department of Economics

ABSTRACT

The concept of international law is vague. Concepts like anarchy and state sovereignty prevent international law from taking on the same meaning of law as is meant in the context of individualized states. Nevertheless, it is there, and it is important to know the ramifications of it. This thesis attempts to provide an empirical analysis to a legal argument, that treaties should be viewed as contracts. In applying this framework, this paper then examines what type of treaties are unstable treaties, those that end as a result of conflict between the states or an unfulfilled obligation, as well as what types of treaties lead to a mitigation of war. To accomplish this, the paper conducts a Cox proportional hazard model examining the hazard rates of treaties becoming unstable and treaties leading to war. Through this analysis, the paper adds to the current literature on how security treaties work and provides foreign policy advice as to what type of treaty would best lead to peace.

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Following the first half of the 20th century, which bore witness to some of the greatest tragedies that ever-afflicted mankind as a result of the large-scale, unrestricted wars that ensued, the global community saw international law as a vital means to preserving peace and protecting human rights. Humanity recognizes that wars often lead to a no-win scenario, and as such, one key aspect of international law has focused on conflict mitigation as a means of preserving peace between nations. This concept was put to the test in 1928 when fifteen of the most powerful nations bound themselves together in agreement to outlaw war (U.S. Department of State, n.d.). This agreement, known as the Kellogg-Briand Pact, or the Pact of Paris, brought with it a hope, specifically following World War I, that this treaty was a signal to an end of bloodshed. In reality, just three years later, when Japan invaded Manchuria, that hope was dashed away. After that, the Kellogg-Briand Pact can be deemed synonymous with PM Chamberlain's infamous, "Peace for our time" quote. Following Japan's invasion, it quickly became realized that the lack of an enforcement mechanism proved detrimental for the agreement (U.S. Department of State, n.d.).

This type of international law is deceptive. The issue with the term *international law* is that there is no hierarchical enforcement of the *law*, making it more of a recommendation with no teeth. The key is to find agreements that provide an accountability mechanism. When dealing with international relations, treaties can be seen as the closest form of law, with the most direct form of accountability, in that, much like a contract, the costs of breaking the treaty can reflect the repercussions of breaking a law. Therefore, treaties might be an effective means of international law in creating conflict mitigation.

Specifically, this paper will explore how security treaties mitigate states from going to war with one another. By better understanding the role security treaties specifically play in

mitigating war, the focus, that foreign policy and international relations gives towards various areas of international law, can better be tailored to reflect the more consequential forms of law. Though this paper does not provide a comprehensive comparison of various types of international law, understanding the role treaties play is a vital step in that direction. Finally, by better understanding security treaties, this research will aid political science in better understanding the mechanisms through which states work together.

Literature Review

The study of treaties has been expansive throughout both economics and political science. This is due in large part to the array of treaty topics. From environmental and human rights treaties to financial and trade treaties, research has had to narrow in on specific categories to better study the treaty as applied to the respective field. However, special note should be given to the most recent and thorough study of treaties as a whole, which revealed that treaties have relatively little success in achieving their stated goal, expect for trade and finance treaties (Hoffman et al., 2022).

Specific categories of treaties are written to have an effect on domestic policy, like environmental treaties (Brandi et al., 2019). However, security treaties can be distinguished due to their creation of something beyond the legal text. In reality, treaties are the legal means that bring about a well-known entity that has been thoroughly studied in the past, alliances. Treaties are the legal framework that create alliances *de jure.* As such, alliance literature provides thorough research, which this paper seeks to add to by applying a study, not of the organizational aspect of alliances themselves, but the contractual nature of the alliances, as created by treaties.

Prior to the end of the Cold War, the literature on alliances was robust; however, with the fall of the U.S.S.R. came the rise of globalization and, with it, a more globalized literature that

focused on global objectives like environmental and human rights literature. However, as the international community has become more hostile, a look at institutions that could prevent war has started to be readdressed in research. The scope of the question being dealt with focuses on security treaties. A product of many of the security treaties that exist is the creation of alliances (Krause & Singer, 2001). These alliances can be broken down into three main categories as shown in Small & Singer (1969). First, are defense alliances which unite the states into a security block, where an attack on one state is met with a military response from all states. The second type is a neutrality pact, where a nation remains neutral if war occurs with another state. Third, are entente pacts, where a nation consults another nation before going to war. The former two alliances are within the scope of this study as they are peaceful in nature; that is to say they are meant to prevent war; whereas, the latter is more focused on a relationship of trust forming between the consulting nations. Moreover, the first two make tangible military commitments, but the entente pacts solely focus on an exchange of information and does not require a military response.

Military Alliance Treaties

Literature on alliances can be categorized in two main areas: the effects and the creation of alliances. For the first category, as noted by Levy (1981), the history of the scholarship surrounding the alliance-war relationship is split. More recent studies have found similar results that alliances may heighten tensions or at least not deter war. (Kenwick et al., 2015; Kenwick & Vasquez, 2017). The other side has argued that alliances lead to peace (Johnson & Leeds, 2011; Leeds, 2005; Levy, 1981). Other research supports this argument showing that alliances provide institutional information to control military behavior (Bearce et. al., 2006). Meanwhile, Morrow (2017) shows that the history of the conflicting states must be examined to know if alliances will

lead to war. Subsequently, Johnson (2016) and Leeds (2003) make a reasonable solution to the debate: offensive alliances are more likely to see war through an ally invading, and defensive alliances help deter war.

The second category of alliance literature focuses on the ways in which alliances are created. Specifically, international scholarship has long assumed that alliances exist to ensure security between states. Additionally, Altfeld (1984) notes that alliances that would not increase the security levels of both states involved are unlikely to be created. Gibler and Vasquez (1998, p. 785) combined these two types of literature to show that the "war prone[ness]" of alliances often are determined by the types of states that join the alliances. States that just won a war or are major states are more likely to see their newly formed alliances go to war; whereas minor states and just recently defeated states are less likely to see their alliances lead to war. Moreover, alliances created to solve territorial disputes are most closely correlated with peace (Gibler & Vasquez, 1998). Both Schroeder and Weitsman note that alliances may form between enemies to prevent war (Mattes & Vonnahme, 2010). Moreover, the features of alliances also play a role; alliances with "permanent arbitration commissions and links to political organizations" are associated with shorter periods of peace (Long et. al., 2007, p. 1116).

Non-Aggression Pacts

The non-aggression pact literature is substantially smaller as opposed to alliance literature yet is more recent in development. Previous research has questioned the efficacy of non-aggression pacts in preventing war (Leeds & Mattes, 2007), yet more recent research has shown that non-aggression pacts may prevent states from going to war (Mattes & Vonnahme, 2010). Additonally, non-aggression pacts are created more frequently by previously rival states

(Mattes & Vonnahme, 2010; Lupu & Post, 2016) and act as a signal that the once untrustworthy states are committing to peace and trust (Lupu & Post, 2016).

Historically, the literature on military alliances was robust; however, part of the scope of addressing alliances and war, and why there was conflict, came from the fact that alliances are more than just a legal treaty. They are international organizations, and with it comes the issue of international politics (Martin & Simmons, 2013). The future of the alliance/ treaty scholarship continues to need more definitive answers on whether alliances lead to war or to peace. Meanwhile, another major gap in the literature is recognizing treaties as an entity in themselves and examining the effect of security treaties without reference to the politics of alliances. The alliances of course will lead to the breakdown of some treaties, but examining the role of treaties as separate from alliances allows the field to analyze where the breakdown in the relations established and the failure of peace takes place.

Therefore, the paper must first analyze how committed states are to abiding by their treaties. Since treaties act as internationally legally binding agreements, it is the respect for these agreements that must be understood. This paper will, therefore, analyze the commitment to three types of treaties: non-aggression pacts, offensive treaties, and collective defensive treaties. From there, the paper can then move into analyzing how those treaties lead to mitigating conflict.

Contract Theory

Regardless of the theoretical framework in international relations, anarchy is accepted as a universal premise to be taken into account when examining the international community. However, the mere absence of a hierarchical authority figure is not sufficient for the absence of restriction of behavior. Since anarchy is the absence of governing authority, rational theory suggests that each agent is only interested in self-preservation and self-betterment. Under the

framework of anarchy, power, or the lack thereof, is the only limitation on an individual. However, during the Enlightenment, theorists like Locke and Hobbes held that individuals contract together to protect their security interests (Hobbes, 2018; Locke, 2005). The reason "a person's contracts are viewed as binding and authoritative" is due to "the authority of consent" (Post, 1995, p. 41).

Treaties have long been viewed as a contractual relationship by the U.S. Supreme Court (Mahoney, 2007). Moreover, the Vienna Convention on the Law of Treaties not only uses the language of contracts, but specifically "recognizes" "the principles of free consent" (Vienna Convention on the Law of Treaties, 1969). As such, I posit that the theories of contracts apply to treaties, and with it the reasoning that accompanies contracts. Continually, contract theory helps explain a situation with both rational actors and pay-offs. Contracts are recognized as being enforced by both external actors, which is not applicable to this paper, and being self-enforced (Watson, 2013). Treaties are often considered a form of international law, yet this description could be quite deceptive. While contracts are considered to be law unto the signatories of the contract, there is a distinguishable difference. By considering security treaties as contracts, contract theory could be applied to help explain and test a state's adherence to its contractual obligations. In reality, the treaty literature has been circulating this application for some time, and if the types of alliances, as described above, are examined in a contractual framework, then the applicability can be seen quite clearly. There are two applications that I will use in my reasoning. Moreover, using the models that accompany these aspects of contract theory in future studies may reveal even greater details about how treaties function. First, moral hazard models study situations where one contracting party can increase their risk-exposure because it is absorbed in part by a second party (Liberto, 2022). Specifically, Benson (2012) & Benson et al.

(2014) explicitly discuss moral hazard applications to alliances. Second, contracts can "signal information about the value of the relationship" (Vasconcelos, 2017, p. 2). In reality, these two applications fit well with the current literature on alliances and treaties. As noted above, research (Johnson 2016; Leeds, 2003) has shown that when an offensive treaty is signed, signees are more likely to go to war because allied nations share the risk of war. I will propose, later in the paper, that this risk is shared in defensive treaties as well, though it may not lead to an increase of war. Likewise, Long et al. (2007) and Lupu & Poast (2016) have shown that non-aggression pacts often act as a signal between previously aggressive states to show a desire for peaceful relations. This is not meant to be the entire proof of the applicability of these types of treaties to contract theory but more of a summary of a theoretical argument that should be explored fully. Understanding a state's adherence to the terms of a contract or treaty is necessary to understanding a treaty's reliability and is, therefore, a first step to then examining how treaties mitigate conflict.

I will note that in my examination of the legal literature I found a lengthy refutation of the idea that contracts are the only way states can bind themselves to obligations. H.L.A. Hart's *The Concept of Law* provided a thorough discussion on international law, yet for part of the chapter on international law argued that this justification is not a feasible argument (Hart, 1994). However, to any objections that may arise from this point I will note one main response. The models that I create and discuss in this paper analyze the stability of treaties and their mitigating effect on war. Should Hart's theory be sound, it need not detract from the evidence presented below. After all, as will be better understood later in the paper, if certain types of treaties are seen as more stable or more likely to mitigate war, then it is possible that those treaty types do carry with them a concept of obligation to the states that other types may not appear to do.

International Law and Domestic Law

In law literature, the discussion of international law's relationship to domestic laws has been heavily researched and is seen as crucial to ensuring the success of international law. As noted above, contracts are seen as either being self-enforced or enforced by an external actor (Watson, 2013). However, Phelan (2016, p.1) notes that treaties have both "'horizontal' (inter-state retaliation) and 'vertical' (national court) enforcement mechanisms." Therefore, treaties, though not subject to an independent vertical power, still are subject to enforcement mechanisms. Additionally, almost all state regimes are beholden to a legal system, and the majority of states have judicial review, of some kind, in their legal system (Mavčič, 2010). Furthermore, treaties typically need to be connected to domestic law, and consequently, many states' constitutions tie treaties immediately to domestic law (Aust, 2007; Nollkaemper, 2014). When treaties are tied to domestic law, the courts can then require the application of the treaty to the state. As such, treaties are not mere words on paper but exist as enforceable contracts between states. Therefore, this paper assumes that states will uphold their ends of the contractual obligations described in treaties. As such, in order to find the success of treaties, one needs to look at the extent to which a treaty produces its natural, not intended, outcome. The distinction between intended and natural is slight but relevant. As will be seen prior to the second hypothesis. Meanwhile, this first assumption is sufficient for the hypothesis of the first type of treaty studied to be formulated.

> Hypothesis 1a: States that sign non-aggression pacts are more likely to not engage in war than states that do not.

Peace exists more frequently than war, "and at the dyadic level war is rare" (Bremer, 1992 as cited in Levy, 1998, p. 141). It is unclear if states desire peace over war or simply choosing peace over war. Regardless, since peace is more likely to occur than war, this paper

argues that treaties, which naturally lead to peaceful outcomes, are more likely to be upheld. Thus, this paper hypothesizes that treaties, whose commitment is to the creation of peace, will have the highest correlation with peace. Since non-aggression pacts require the least amount of risk and/or action by a contracting state, then it follows that this treaty would have a higher correlation with peace than the other two types of treaties. Additionally, since states would risk less by committing for peace, then it could logically follow that states can have an easier time committing to those terms, than say committing to coming to the aid of an ally engaged in war. Therefore, in order to test the commitment of states to what their "contractual obligations" to an ally:

Hypothesis 1b: Non-aggression pacts are less likely to become unstable alliances.

It is for the next hypothesis, in which the distinguishment between intended and natural result should be noted. One could argue that the goal of an offensive agreement is still to pacify the situation; after all, the propensity for two states to ally and invade would seem to logically deter weaker states from antagonizing either of the allies, as individuals. However, it is this papers argument that this intention is not what should be tested, but the end result. In holding with Johnson (2016) and Leeds (2003), this paper assumes that the actions of the contracting states are relevant to whether war results or not. As such, I argue that since, under moral hazard theory, two contracting states create a risk-sharing relationship, then offensive treaties will see an increase in the probability of war because a state can be more risk-seeking.

Hypothesis 2: States that sign collective offense agreements are more likely to go to war than states that do not.

Offensive treaties are aggressive in nature. However, while the same assumption could apply to collective defensive agreements, meaning that the security of a defensive ally could allow a state to increase aggressive rhetoric, this paper assumes the credible threat of a

reciprocating alliance will prevent a state from invading an allied state. Hypothesis 3 reverses the directional causality of hypothesis 2 because a defensive ally in no way ensures that the contracted states' aggression would illicit a response under the states' treaty obligations. It should be noted that the data which will be used distinguishes war from aggressive rhetoric (Palmer et al., 2020; Sarkees & Wayman, 2010) As such, states allying together expand their military capabilities allowing for a larger show of force that prevents war, in which they would be engage, from ensuing.

> Hypothesis 3: States that sign collective defense agreements are less likely to go to war than states that do not.

While hypothesis 1b is more so reflective of the willingness of a state to uphold its terms of a contract, the hypotheses 1a, 2, and 3 will test the moral hazard associated with various security treaties. By understanding these hazards, policy advisors and scholars will be better equipped to advise on foreign policy objectives that will ensure peace and not inadvertent war.

Research Methodology

The three hypotheses sets test three distinct types of security treaties, in order to examine the overall contractual obligations and mitigating effects tied to treaties as a whole. These three security treaties are non-aggression pacts, offensive treaties, and collective defensive treaties. The scope of this study, for reasons mentioned below, are the three types of treaties of all states from 1816-2007. This study analyzes the ability of security treaties to lead to their natural outcomes through the examination of the respective state's response in choosing either war or peace. While war can be construed as conducive of a vast range of conflicts, since this paper is analyzing treaties as contracts between states, and states can only break or uphold the contract, this paper is focused on inter-state war. Because this study is focused on treaties as a legal institution that both transcends and is influenced by the states' understanding of law, the study

needs to extend beyond one region and beyond one era of international relations. So, the study utilizes a large quantitative study that examines all states' behaviors, who have signed treaties, over an almost 200-year period, to ensure that treaty responses are not tied to a specific geographic region or era. The evidence that will be collected stems from three main sources. For information on treaties, I use the Alliance Treaty Obligation and Provisions (ATOPS) dataset. This is in part due to Leeds previous research on this topic as well as the ability of this data to better define the three categories of treaties, as I use them, than in the Correlates of War (CoW) dataset. However, CoW does provide an excellent definition of war, so that will be used for providing the evidence of the dependent variables, war or peace. Finally, the CIA factbook provides information on the legal system of the states, as discussed below.

The dependent variables will be pulled from the CoW, War Dataset (v4.0) for the models created for hypothesis 1a, 2, and 3 (Sarkees & Wayman, 2010). This paper uses a binary choice for the dependent variable, war (1) or peace (0). This paper does not seek to engage itself in the larger theoretical debate of whether peace is the absence of war, or something else (Polat, 2010). Instead, for ease of operationalizing the definition, this paper assumes that the absence of war is the aim of treaties that promote peace, and therefore follows in line with a long lineage of conflict theorists who have defined peace as the absence of war (Levy, 2002). CoW operationalizes inter-state war through the following specifics: "involving organized armed forces [and] resulting in a minimum of 1,000 battle related combatant fatalities within a twelve-month period" (Sarkees & Wayman, 2010, p. 1-2). Moreover, there must be "effective resistance" (i.e. not just a massacre), and the state must have "either commit[ed] 1,000 troops to the war or suffer 100 battle-related deaths" (Sarkees & Wayman, 2010, p. 2-3,). This set of

requirements ensures that only actual wars and not minute skirmishes, which could be conducted absent the government's approval, are studied.

Meanwhile, for the test for hypothesis 1b, I will use a dependent variable that examines how the treaty ended based on the variable *termcaus* from the ATOPS dataset. Due to the limitation on data, I am assuming that one can examine the commitment of a state to their treaty terms based on what I will call *unstable alliances*. I am defining these unstable alliances as alliances that end due to conflict between states, that is the result of a dispute pertaining to the alliance, or due to a state actually not fulfilling their alliance obligations. After all, if states are contracting themselves to a treaty, and those contracts are to be viewed as laws, then a treaty ending due to an unfilled commitment or a policy dispute can be interpreted as the ineffectuality of international law in governing states behavior in that way. ATOPS' *termcaus* variable defines the ways alliances end as the following:

> (1) The alliance was replaced by a new agreement among the members. (2) One or more of the alliance members lost political independence and no longer qualified as a member of the international system. (3) The problem the alliance was aimed at was resolved (e.g., the end of a war that the allies had promised to fight together.) (4) One or more members left the alliance over a policy dispute unrelated to managing the alliance commitment. (5) One or more members left the alliance over a policy dispute regarding alliance management (e.g., distribution of costs, military doctrine, etc.). (6) Members of the alliance engaged in military conflict with one another. (7) One or more members became involved in a war which resulted in the end of the alliance (either because allies do not fulfill their obligations or the war is lost). (8) One or more members violated a provision of the alliance short of war and this resulted in the end of the alliance (Leeds, 2022, pg. 21-22).

A 0 is coded for those that did not end. Therefore, the terminating variable for the test will be variables 5-8 which reflect a policy dispute or an unfulfilled obligation.[1]

[1] It is worth noting that there was one issue in the coding that could not be accounted for. Data point 7 is for treaties that were the result of wars where "allies did not fulfill their obligations or the war is lost." However, the war being lost, without an unfulfilled obligation, would not seem to fall under the definition of an unstable alliance as I defined

This paper will utilize the Alliance Treaty Obligation and Provisions dataset for the main reason that it differentiates between offensive and defensive treaties, allowing for the examination of different results based on these distinct treaty types (Leeds et. al, 2002). Specifically, each treaty is coded as a binary dummy variable for all three treaty types (Leeds, 2022). As such, this paper's operation definitions for independent variables utilize ATOP's as listed in Table 1. ATOP's data spans from 1815-2016, while COW spans from 1816-2007. Therefore, this overlap provides artificial constraints to the study through the limitations of the data provided.[2]

Table 1: Operation Definitions: Defense Alliances, Offense Alliances, Non-Aggression Pacts

Defense Alliance	"If the alliance member promises to provide active military support in the event of attack on the sovereignty or territorial integrity of one or more alliance partners."
Offense Alliance	"If the alliance member promises to provide active military support under any conditions not precipitated by attack on the sovereignty or territorial integrity of an alliance partner, regardless of whether the goals of the action are to maintain the status quo."

it. However, data limitations did not allow for me to control for this. Since ATOPS did not describe the difference, yet code 2 was for "one or more of the alliance members lost political independence…" was also created, it is assumed that those few cases would not completely mess up the data set. Especially noting that data code 7 only accounted for 60 of the 2510 cases, 39 of which were censured due to lack of data in other parts.

[2] ATOPS codebook notes that its dataset includes a small number of alliances that include states which are not considered members, and therefore not coded for having engaged in inter-state war under CoW's guidelines. However, due to censures of the data due to other missing variables (legal system, *Cinc2* values, etc.) only thirteen of the cases constituted this issue. Three of which end up being recognized as a state by CoW later and had a war occur during the duration of the treaty, which contributed to the models. As such, due to time constraints, the small number of cases, and the large significance which the variables had, it is assumed that this would not change the direction of the variables.

Non-aggression pact	"If the alliance member promises not to use force against one or more alliance partners to settle disputes. The member must promise specifically to refrain from the use of force in relations with the alliance partner, to refrain from participating in any action against the alliance partner and/or to settle all disputes peacefully in relations with the alliance partner"

(Leeds, 2022, p. 22).

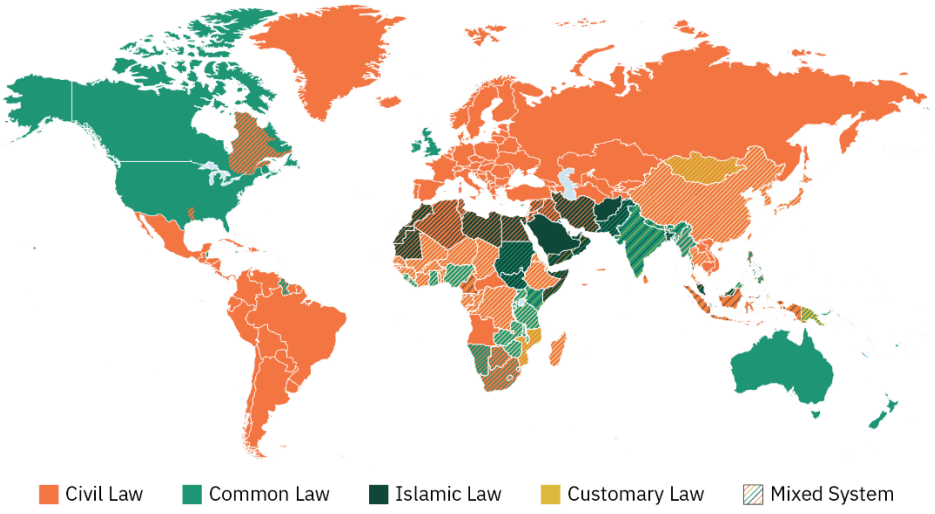
If treaties are to be viewed as contracts, then that fundamentally raises one issue when dealing with trans-national interests. After all, the law of contracts differs based on the legal background of a state (Fernando, 1990; Mohammed, 1988; Moss, 2007; Nicholas, 1973). This paper goes beyond a mere analysis of whether a state affirms its treaty obligations or not and, in treating treaties as contracts, examines the response made by states according to their legal background. After all, the nature of contracts diverges under different legal systems. In civil law, contracts carry with it more "[implied] provisions" and, therefore, less freedom than in common law systems (Michigan Law – Law Library. n.d.). Meanwhile, religious legal systems diverge the most. One such example is that "any transaction should be devoid of uncertainty and speculation" (Mohammed, 1988, p. 121). If nations view treaties as contracts, then a different understanding of contracts must be accounted for. Therefore, I controlled for each nation's type of legal system to examine the correlation between a state upholding or rejecting their contractual obligation. Specifically, in formulating this data, I used the CIA World Factbook on legal systems to create my own dataset (Central Intelligence Agency, n.d.). However, the factbook breaks the legal systems down well beyond a usable function (splitting civil law into country of origin, etc.). So, in order to create a workable dataset, I utilized the typical subsects

used in the study of comparative laws creating the dummy variable for the following categories: common law, civil law, customary law, religious law, mixed law (University of South Carolina School of Law, 2018). Since civil law constituted the largest number of cases, it became the reference variable. It should be noted, in discussion of a mixed legal system, that mixed refers to an intersection of two of the other legal systems, not say two types of civil law, i.e., French and Spanish (Central Intelligence Agency, n.d.).

However, for hypothesis 1a, 2, and 3, those tests are not analyzing the inherent contractual relationship but rather dealing with the initial question posed at the beginning: how treaties mitigate war. Therefore, the idea that the legal systems of nations should be controlled for or not is not as straightforward. It is possible that the known commitment of nations to their legal obligations helps potential adversaries predict and therefore model if they should go to war or not. Yet, this is a complicated explanation that would require further studies to understand. On the other hand, the regime nature of states needs to be controlled for, so this paper controlled for the democratic nature of the state being analyzed. After all, if this paper is analyzing the type of treaties effect on war, exogenous effects like the Democratic Peace Theory must be controlled for. This theory notes that democracies are less likely to go to war with one another, yet democracies are also not less war-prone, so the effect of this variable is up for debate (Mello, 2014). Other research has noted, however, that when "warlikeness" is measured "in the terms of the severity of war… the degree to which a regime is democratic is inversely correlated with the severity of its wars" (Rummel, 1995). Since the CoW database requires at least 1,000 deaths to be considered a war, the democratic nature could also have an effect that must be controlled for in those analyses. To control for the democratic nature of the states, I used the Democracy Index, Polity 5 (Polity, 2021). This index assigned an integer value between -10 and 10 to each country

from 1776 to 2020. As such, I created an average index variable by averaging the index variables for each country during the duration of the treaties.[3] To cover all bases, I performed analysis with both the legal systems as control variables and the democracy control, but not both. To note, I did not control for both the legal systems and the democratic nature of states, as these variables may have too much of an overlap. After all, religious law appears to mainly be focused on Middle Eastern nations which are typically less democratic. Likewise, common law stems from the English legal tradition that was passed down to its colonies (Berkley Law, n.d.). To clarify this comparison see Image 1.1, a map of the legal traditions across the world, and Image 1.2, a map of the democracy index data. The commonalities, especially in the legal traditions of common law with democratic nations and religious law with non-democratic nations should be noted.

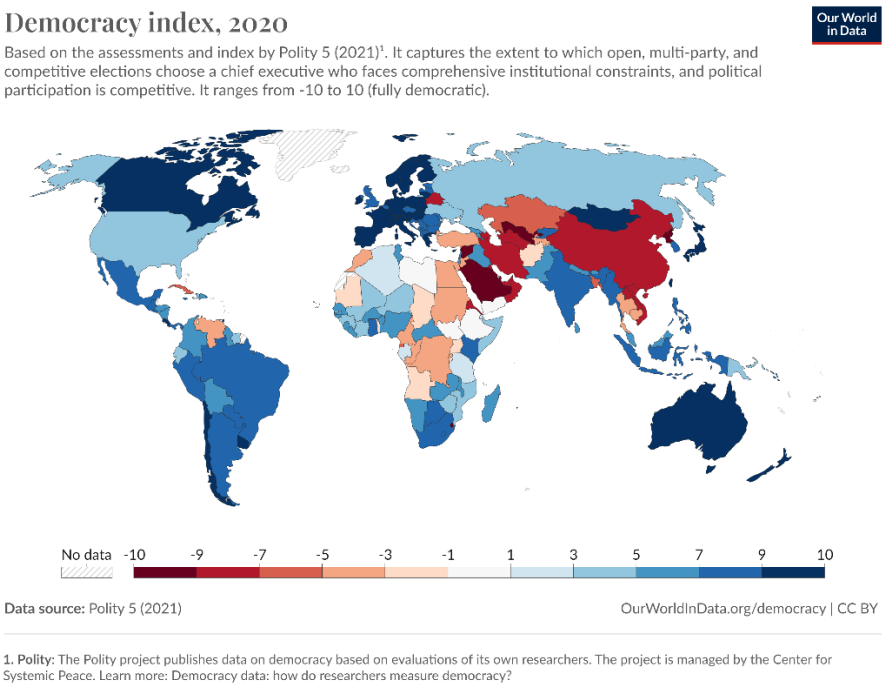
Image 1.1: Legal System Map of Contemporary World, 2022



(Rom et al. 2022)

[3] To keep the integer basis for interpretation purposes, I rounded up or down to the nearest whole number.

Image 1.2: Democracy Index Map of Contemporary World, 2020



(Polity, 2021).

On top of that, this paper will control for other following factors, utilizing data from both ATOPS and the CoW datasets. The likelihood of a war is correlated to the military capacity of a nation, or what Knorr (2015) deemed war potential. The CoW has created the national material capabilities dataset for every state in the time period of either 1816-2010 or 1816-2016, depending on the state (Greig & Enterline, 2017). The variable that was created was called *cinc* This capability includes data on "total population, urban population, military personnel, military expenditures, primary energy consumption, and iron and steel production" (Greig & Enterline, 2017, p. 1). This dataset was version 6, updated from the original dataset created by Singer et al. (1972). This data will be used to control for aspects of states that can readily be understood as causally connected to the strength of a state in war. After all, when studying how treaties mitigate war, adverse effects like states having a systemic propensity for war should be

controlled for. However, the CoW data listed a data point per state per year. Since each case deals with one state over a time span, I took the average of the *cinc* values and utilized that as the data point, creating *Cinc2*.

Next, I controlled for the variable *consul* in the ATOPS dataset. This dummy variable determined "if the alliance member promises to consult with one or more alliance partners in the event of crises with the potential to become militarized conflicts." The focus of this study is on which type of treaty has the highest propensity for peace. An argument can clearly be had that requiring a state to consult with another allied state could affect the probability of war ensuing. On one hand, allied states may have the ability and/or influence to prevent a state from going to war with another. This ability could take multiple forms, mediation is one such avenue that has been studied (Iwanami, 2014). However, others include possible withholding of aid or merely talking a leader out of their decision. On the other hand, consulting could lead to an allied state choosing to become involved themselves. Such a situation would increase the probability of war. Either way, the study needs to control for such a variable. The one hypothesis for which I did not control for *consul* was hypothesis 1b. Since this test was analyzing the duration of treaties, not the start of war, it appears that consulting before engaging a war may only be negatively impacting the duration of a treaty if the state was breaking the treaty terms. However, since engaging in a war while breaking the terms of a treaty appears to satisfy what ATOPS coded as 7 under *termcaus,* which was one of the terminating events in the hazard model, then controlling for it would appear to place a higher than logical emphasis on the variable. Data value 7 is defined as "One or more members became involved in a war which resulted in the end of the alliance (either because allies do not fulfill their obligations or the war is lost)" (Leeds 2022, pg. 22).

Instead, for the hypothesis 1b analysis, I controlled for an exogenous variable that measured a decision made by the state: *initiate.* This variable from the CoW measures whether the state was the

one that "initiated the war" or not (Sarkees & Wayman, 2010). This was added for two reasons. First, starting a war can cause hostilities that extend well beyond the current war. Therefore, states that are allied with invading states could be viewed as associated with those states. Second, from a purely logical standpoint, if one of the terminating events, as described above, is based on a member entering a war that does "not fulfill their obligations" then controlling for whether or not that state was initiating the war ensures that the type of treaty is being examined, and not the inherent nature of hostility of the state.

Lastly, I controlled for whether or not the treaty could be defined as an asymmetric treaty. This variable can be summed up as a dummy variable coded 1 if *obligations* differ among members, and coded 0 if not (Leeds 2022, pg. 26). *Asymm* is controlled for, since a difference in alliance structures can inherently alter the relationship between states. This inherent difference would mitigate the correlation between the specific nature of the treaty and the duration.

In order to test the likelihood of the three different treaty types associated with their respective hypothesis discussed above, this paper will utilize a quantitative methodology. Specifically, this paper will utilize a proportional-hazard model analysis to examine the likelihood of peace continuing post-treaty signing. This model has been utilized to examine the probability of the continuation of peace after some international event, conference or treaty before (Gaubatz, 1996). Additionally, the goal of this paper is to better understand how treaties mitigate war. To that end, this paper acts not just as an analysis but a recommendation to foreign policy makers and legal scholars as to the treaty which has the highest propensity for peace. Hazard models allow for the study to compare the three treaty types, control for the same conditions, and will yield the likelihood of all three treaties either leading to war or peace. Therefore, this analysis will analyze how the three treaty types either encourage or discourage war

according to a state's legal system and controlling for factors that could increase or decrease a state's propensity for war.

Nine tests were run, concluding in two different types of analysis (three for one, six for the other). Starting first with hypothesis 1b, I ran a model for the three different treaty types. The time-variate was the duration of the treaty in days, and the terminating event was *termcaus* as described above. For the other hypothesis: 1b, 2, and 3, I ran a model where the time variate was from the start of the signing of the treaty until the terminating event of the start of a new war. For cases where no war started, then the treaty duration was utilized. For all time-variates, the data was right-censored because the Correlates of War data ended on Dec. 31, 2007, so all data collection, including ATOPS was coded to end at that time.[4]

Data Analysis

Though non-aggression pacts were the only ones hypothesized about, the relative nature requires all three treaty types to be tested. Since the values that constituted the "death" event or discrete event reflected an unstable treaty, then rejection of the null-hypothesis would require non-aggression pacts to have a larger negative Beta coefficient than either of the other two treaties.

Focusing only on Figure 1.1, two observations can be made about the relationship of the non-aggression pacts and "unstable alliances." First, the Beta coefficient matches the hypothesized direction, a negative relationship, and has a large enough value of -1.348 to reject the null hypothesis of there being no correlation. Second, this relationship is significant at the

[4] Since the ATOPS and CoW datasets were created by different academic groups, I was dealing with multiple datasets, one spanning 2510 cases. When this is taken in context of the short time duration one has to complete an Undergraduate thesis, it was unfeasible for me to hand-code the combined datasets. As such, I utilized Julius AI, an artificial intelligence server, where I could upload my datasets, and it ran the code and combined the data for me. This process was complemented by me randomly factchecking many cases to ensure accuracy in the dataset.

highest level. Turning our attention to Figure 1.2, with a positive correlation of .934 and also being significant at the highest level, offensive treaties appear to be having the opposite effect as non-aggression pacts. That is to say that offensive treaties are more likely to be unstable treaties. Meanwhile, defensive treaties are not statistically significant and have a low correlation value, though in the negative direction. There is not enough information for these treaties to reject their null hypothesis, that there is no relationship between defensive treaties and the stability of the treaty. When adding Figures 1.2 & 1.3 into the analysis, two broader observations can be made. Relatively speaking, non-aggression pacts appear to be more highly disproportionally correlated with unstable treaties than offensive treaties and defensive treaties, adding evidence towards the original hypothesis. The null hypothesis appears to be able to be rejected.

Figure 1.1: Non-Aggression Pacts Effect on Termination, with Legal Systems Control

Variables in the Equation

Dependent Variable: Termcause
Time Variate: Alliance_Duration2

	B	SE	Wald	df	Sig.	Exp(B)
Nonagg	-1.348	.191	49.717	1	<.001	.260
Cinc2	3.472	1.341	6.709	1	.010	32.213
Asymm	.245	.258	.899	1	.343	1.278
Initiator	.535	.104	26.420	1	<.001	1.708
CommonLaw2	-.872	.370	5.563	1	.018	.418
ReligiousLaw2	.300	.516	.338	1	.561	1.350
CustomaryLaw2	-10.259	208.540	.002	1	.961	.000
MixedLaw2	-.553	.237	5.434	1	.020	.575

Figure 1.2: Offensive Treaty Effect on Termination, with Legal Systems Control

Variables in the Equation

Dependent Variable: Termcause
Time Variate: Alliance_Duration2

	B	SE	Wald	df	Sig.	Exp(B)
Offense	.934	.258	13.114	1	<.001	2.544
Cinc2	3.944	1.358	8.430	1	.004	51.612
Asymm	.863	.249	11.965	1	<.001	2.369
Initiator	.500	.106	22.320	1	<.001	1.649
CommonLaw2	-.841	.375	5.034	1	.025	.431
ReligiousLaw2	.268	.518	.267	1	.605	1.307
CustomaryLaw2	-9.273	157.562	.003	1	.953	.000
MixedLaw2	-.528	.237	4.969	1	.026	.590

Figure 1.3: Defensive Treaty Effect on Termination, with Legal Systems Control

Variables in the Equation

Dependent Variable: Termcause
Time Variate: Alliance_Duration2

	B	SE	Wald	df	Sig.	Exp(B)
Defense	-.260	.191	1.853	1	.173	.771
Cinc2	4.905	1.336	13.481	1	<.001	134.985
Asymm	.961	.256	14.099	1	<.001	2.614
Initiator	.558	.106	27.613	1	<.001	1.747
CommonLaw2	-.982	.371	7.025	1	.008	.374
ReligiousLaw2	.309	.518	.357	1	.550	1.363
CustomaryLaw2	-9.919	217.242	.002	1	.964	.000
MixedLaw2	-.540	.238	5.155	1	.023	.583

Significant in All 3

Now I will turn my attention to four sets of variables that were either significant under two or all three of the types of treaties. To place this analysis into perspective, since these three tests were studying the hazard rate of the duration of treaties, ending in at least one state not upholding their obligation or an alliance related dispute, then a variable significant in all three circumstances would suggest to be heavily correlated, if not casually related, either proportionally or disproportionally, with what can be considered viable treaties.

The first such variable is *Initiator.* This dummy variable, coded for whether the state was the initiator of a war or not, was significant at the highest significance level in all three tests. All three had a positive direction of the Beta coefficient, with a small range of values, 0.500, .535, and .558 suggesting a strong correlation. This suggests that alliances that terminate due to an unstable action caused by at least one member state is related, at least in part, to states initiating war.

Second, the analysis shows that *Cinc2* is significant at either the highest or second highest level for all three tests. Each has a positive direction with an extremely large Beta coefficient of over 3.4, indicating that the higher the military capacity of a state, there is on average a 340% or higher increase in the chance the state's treaty becomes an unstable treaty.

The third variable to note *asymm* is significant in only the offensive and defensive treaties. It is possible that this is because it is more difficult and therefore more uncommon to see non-aggression pacts be asymmetric, since that does not carry with it too many obligations except the prevention of war between two states which is a symmetrical obligation. Meanwhile, for offensive and defensive treaties the asymmetric nature of both treaties significantly correlates a higher probability in the chance that the treaty will become unstable. For all three of these

variables, discussions as to why these correlations make sense will be discussed in further detail in the conclusion.

Lastly, it is interesting to see that both *CommonLaw2* and *MixedLaw2* were statistically significant at the $P < .05$ level in all three models (with *CommonLaw2* also being statistically significant at the $P < .01$ level in Figure 1.3). In all three models they had a negative coefficient, with *MixedLaw2* having a coefficient value above .5 in all models, and *CommonLaw2* having a value above .8 in all models. This means that, in reference to civil law, common law and mixed law systems appear to be more heavily correlated with their treaties not becoming unstable. This could be due to another correlation (maybe the origin of these legal systems) or could be due to the way in which these countries either intercept or set up their treaties. Further studies should examine the states' legal systems effects on their international relations for more information to be concluded.

Now looking to the second analysis: testing hypothesis 1a, 2, and 3. These three hypotheses are similar in analysis. Each is hypothesizing about the relationship of the three types of treaties and their effect on the signee states going to war. However, edits had to be made to the model that was first discussed above for hypothesis 1b. While the above model's terminating event was the breakdown of the treaty, these three are focused on the start of *war*. Therefore, the terminating event is a dummy variable coded 1 if war and 0 if peace. Likewise, the time variate also had to be reformatted. While hypothesis 1b only spanned the duration of a treaty's existence, this second test was focused on a point that could either have been the end of an alliance, like, or occurred in the middle of the alliance. Regardless of the war's effect on the alliance, war was the terminating event. As such, I first merged the CoW data sets to find the overlapping cases (i.e. when the member state was engaged in war during the treaties time span). From there, I

calculated the difference of the war date from the treaty start date. This allowed for a termination date at the start of war; however, if there was no war during the treaty duration, then the treaties full duration length was used. [5] The results can be viewed in Figure 2.1 – 2.3.

First, this paper will analyze the tests in relation to their respective hypothesis separately and then analyze the relative nature of the hypotheses.

Hypothesis 1a:

Hypothesis 1a predicts that signing non-aggression pacts will have an inversely proportional relationship to war. As seen in Figure 2.1, the direction of the Beta coefficient for *Nonagg* is as predicted, and the relationship is significant at the 95% level, and almost at the 99% level. Therefore, the null hypothesis, that there exists no relationship between non-aggression pacts and war starting, can be rejected. When comparing the democratic control vs. the legal systems control two observations can be seen. First, the independent variable, *Nonagg*, maintained its predicted direction, with the only change being an even larger correlation and an even larger significance. Meanwhile, the other three control variables, though they maintained the same direction, decreased in their Coefficient value and decreased in their significance.

[5] When merging the data, I found that there were two different coding patterns that could be taken. Some security treaties were signed while states were in war; however, this does not show the mitigating effect of the treaty. At the same time, if the treaty was signed for purposes of that war, then leaving out that key fact could make the treaties appear like they were mitigating wars for longer than they, in all reality, were. Therefore, the Appendix shows a printout of the data ran where if a war was ongoing then the time-variate was coded 0. As is seen in the printout, only the magnitude of the correlation increased, not the direction.

Figure 2.1a: Non-Aggression Pact Effect on War, with Legal Systems Control

Variables in the Equation

Dependent Variable: AllyOrWar

Time Variate: Alliance_Duration2

	B	SE	Wald	df	Sig.	Exp(B)
Nonagg	-.324	.128	6.372	1	.012	.723
Cinc2	7.231	.746	94.065	1	<.001	1381.404
Asymm	.580	.173	11.275	1	<.001	1.786
Consul	-.197	.114	3.002	1	.083	.821
CommonLaw2	.489	.177	7.616	1	.006	1.631
ReligiousLaw2	.447	.417	1.148	1	.284	1.564
CustomaryLaw2	-10.326	140.919	.005	1	.942	.000
MixedLaw2	.287	.135	4.489	1	.034	1.332

Figure 2.1b: Non-Aggression Pact Effect on War, with Democracy Control

Variables in the Equation

Dependent Variable: AllyOrWar

Time Variate: Alliance_Duration2

	B	SE	Wald	df	Sig.	Exp(B)
Nonagg	-.568	.100	32.449	1	<.001	.567
Consul	-.023	.093	.060	1	.806	.977
Asymm	.380	.144	6.940	1	.008	1.463
Cinc2	7.284	.644	128.102	1	<.001	1456.185
Avg_democracy_polity	-.001	.005	.064	1	.801	.999

Hypothesis 2:

Hypothesis 2 predicts that signing offensive treaties will have a directly proportional relationship to war. Accordingly, Figure 2.2 shows that the Beta coefficient for offensive treaties, is in the predicted direction, and is significant at the 99% level. Thus, the null hypothesis can be rejected. Like hypothesis 1a, comparing the democracy control charts with the legal systems control chart does not reveal significant differences. First, the democracy control, maintained a close correlation, the predicted direction, and saw the significance increased. Meanwhile, for the other three control variables, the different analysis showed: a decrease in the significance and a direction switch for *consul*; a decrease in the correlation, but constant holding of the significance level at <.001 for *asymm*, and an increase in the correlation, but constant holding of the significance level at <.001 for *Cinc2*. The important thing to note is the continuation of a coefficient effect over .5 with a level of significance at the second level or higher.

Figure 2.2a: Offensive Treaty Effect on War, with Legal Systems Control

Variables in the Equation

Dependent Variable: AllyOrWar
Time Variate: Alliance_Duration2

	B	SE	Wald	df	Sig.	Exp(B)
Offense	.554	.197	7.883	1	.005	1.741
Cinc2	7.048	.772	83.254	1	<.001	1150.944
Asymm	.731	.163	20.005	1	<.001	2.077
Consul	-.123	.113	1.182	1	.277	.884
CommonLaw2	.502	.178	7.920	1	.005	1.652
ReligiousLaw2	.427	.417	1.049	1	.306	1.533
CustomaryLaw2	-10.228	141.455	.005	1	.942	.000
MixedLaw2	.297	.135	4.821	1	.028	1.346

Figure 2.2b: Offensive Treaty Effect on War, with Democracy Control

Variables in the Equation

Dependent Variable: AllyOrWar

Time Variate: Alliance_Duration2

	B	SE	Wald	df	Sig.	Exp(B)
Offense	.515	.159	10.521	1	.001	1.674
Consul	.078	.093	.713	1	.399	1.081
Asymm	.594	.141	17.815	1	<.001	1.811
Cinc2	7.503	.659	129.622	1	<.001	1812.648
Avg_democracy_polity	-.001	.005	.069	1	.793	.999

Hypothesis 3:

Like hypothesis 1a, hypothesis 3 predicts that signing non-aggression pacts will have an inversely proportional relationship to war. As seen in Figure 2.3, the Beta coefficient for defensive treaties is not only in the incorrect direction, to what was predicted, but is insignificant as well. As such, the null hypothesis cannot be rejected. It should be noted that with a coefficient of .079, there appears to almost be no relationship at all. For the comparison of the Democracy control and Legal systems control, the charts appear to merge what happened with *Nonagg* and *Offense*. Like *Nonagg* the *Defense* coefficient increased in value, maintained direction, and increased in significance, still not to an actual significant value. Meanwhile, *consul* switched directions and severely decreased in significance from a p-value of .132 to .727. *Asymm* decreased in correlation, yet maintained a significance at the highest level and its direction. Lastly, *Cinc2* increased in correlation, and maintained a significance at the highest level and its direction.

Figure 2.3a: Defensive Treaty Effect on War, with Legal Systems Control

Variables in the Equation

Dependent Variable: AllyOrWar

Time Variate: Alliance_Duration2

	B	SE	Wald	df	Sig.	Exp(B)
Defense	.079	.121	.421	1	.517	1.082
Cinc2	7.639	.733	108.707	1	<.001	2077.214
Asymm	.704	.169	17.456	1	<.001	2.022
Consul	-.173	.115	2.266	1	.132	.841
CommonLaw2	.448	.178	6.309	1	.012	1.565
ReligiousLaw2	.475	.418	1.289	1	.256	1.608
CustomaryLaw2	-10.241	141.206	.005	1	.942	.000
MixedLaw2	.300	.135	4.894	1	.027	1.349

Figure 2.3b: Defensive Treaty Effect on War, with Democracy Control

Variables in the Equation

Dependent Variable: AllyOrWar

Time Variate: Alliance_Duration2

	B	SE	Wald	df	Sig.	Exp(B)
Defense	.116	.099	1.392	1	.238	1.123
Consul	.033	.093	.122	1	.727	1.033
Asymm	.573	.146	15.488	1	<.001	1.774
Cinc2	7.927	.637	155.058	1	<.001	2771.107
Avg_democracy_polity	-.002	.005	.162	1	.687	.998

Common Variables

In an examination of the covariates there are a few commonalities, which warrant specific recognition. The first and most prominent of all the covariates is *Cinc2*. This variable may be the least surprising of all covariates, yet it is the strongest correlated variable. This variable, acting as an average measurement for the military capacity of a given state, has a large Beta coefficient of just over 7 in all three tests and is significant at the highest level. Taking all values together, this test provides evidence that a random relationship between the size of a state's military ability and their propensity for war can be rejected. There appears to be a large proportional correlation

between the two measurements. Also, with a significance at the highest level, this variable suggests a strong correlation between the time duration until a war is fought and the national military capacity. Specifically, as *Cinc2* increases, the time before the next war decreases.

The next covariate that is worth mentioning is *asymm*, a dummy variable coded 1 if the treaty is asymmetric. This variable has a positive correlation in all tests, with the only test not being significant at the highest level still being significant at the second highest level. The positive correlation of all suggests that an asymmetric treaty has an even higher correlation with treaties not mitigating war.

The third co-variate to note was the *consul* variable, or a control for states having to consult before they went to war against another state. This co-variate was insignificant for all treaties; however, it was a p-value of .083 for non-aggression pacts with a negative sign. While there was not enough data to reject the null hypothesis, the negative sign suggests that there could be a direct correlation between treaties that contain consultation obligations and the mitigation of war—specifically among non-aggression pacts.

Lastly, just like Figures 1.1 - 1.3, *CommonLaw2* and *MixedLaw2* were statistically significant at the P <. 05 level in all three respective models (with *CommonLaw2* also being statistically significant at the P <. 01 level in Figure 2.1a and 2.2a). In all three models, they had a positive coefficient, with *MixedLaw2* having a coefficient around or just under .3 in all models, and *CommonLaw2* having a value around or just under .5 in all models. This means that, in reference to civil law, common law and mixed law systems appear to be more heavily correlated with war ensuing following the signing of their treaties. As noted above, further studies should examine the states' legal systems effects on their international relations for more information to be concluded.

Discussion & Conclusions

The above analysis has provided meaningful results. First, when examining the stability of treaties, multiple results were found. Non-aggression pacts were the only type of treaty that was statistically correlated with not becoming an unstable alliance. Meanwhile, offensive treaties were heavily correlated with becoming an unstable alliance. Likewise, it was found that the type of treaty is not the only aspect that should be looked at when testing the stability of treaties. Additionally, one should look at endogenous variables, like the asymmetric nature of a treaty, and exogenous variables, like the military capacity of states and if a state initiates a war or not. All of which were statistically significant and correlated with unstable treaties. These observations make sense. Examining the treaties (independent variables), the tests support my hypothesis 1b. Non-aggression pacts entail the smallest loss of control over one's state of affairs; after all, one is only committing to not attack the other state. They are not committing to the possibility of actually engaging in military actions, as the other two treaties could lead to. Likewise, when one allies themselves to another state "x", and if x is initiating wars, then their allies could be associated with those wars, or even require them to be involved as in the case of offensive treaties. So, this makes sense that this variable is correlated with unstable alliances. As for the military capacity of states, if military capacity is correlated with war, as the second set of models appear to indicate, then just like initiating war, this militancy of states also seems to make sense in its correlation. For the final variable, *asymm,* this logically make sense as well. Asymmetric alliances are not equal in their distribution of obligations. So, at times a heavier burden could create a stress test on one state more so than on the other state. Additionally, it has been found in certain asymmetric alliances, like the United States', the more powerful state may engage in wars in which the weaker state wishes to not engage (Brown, 2015). However, though

this control variable can only be seen in its correlation to its stability, not its duration, it would be sensible to assume "instability" is more heavily correlated with shorter durations of alliances. It is worth noting that previous research suggests that asymmetric alliances last longer (Morrow, 1991). This line of research, however, is looking at asymmetric benefits from the alliance, not obligation asymmetries. Therefore, these different definitions for the variables should not be equated to suggest a result that diverges from previous research on asymmetric alliances. Therefore, further research should examine the efficacy of both types of asymmetric alliances, as seen in the significant correlation obligation asymmetries has with unstable alliances and war ensuing.

One potential flaw in this analysis was noted above in footnote 1 with the limitation of data as related to the *termcaus* variable. However, another issue worth noting is that each case was the duration of a single state under a single treaty. If certain states signed a larger number of treaties during a time period, then one initiation could be duplicated in multiple cases. With more time, one other analysis I would want to run is seeing the effect over different war eras (midd-1800s, WWI, WW2, and Cold War). This would ensure it there was not a temporal aspect not being accounted for.

As for hypothesis 1a, 2, and 3, the tests appear to support hypothesis 1a and 2 while there was insufficient evidence to support hypothesis 3. The tests revealed the predicted relationship between non-aggression pacts and offensive treaties and the mitigation of war, respectively. Meanwhile, defensive treaties were not in the predicted direction yet were also not significant enough to conclude a direction about them.

This is interesting because it shows that the only type of treaty that truly appears to be correlated with the mitigation of war, in both this paper, and in previous research is non-aggression pacts (Mattes & Vonnahme, 2010). When the previous research, which found that

non-aggression pacts are typically signed between former enemies, is taken into account it is possible that it is this contractual nature between enemies that plays a larger role (Mattes & Vonnahme, 2010; Lupu & Post, 2016). One could logically see that a treaty category, which places a stop to previously established hostilities, is more likely to prevent war. This is because breaking that treaty, which as hypothesis 1b showed is less likely for non-aggression pacts, is more likely to lead to the restart of conflict. It is like a person who is deciding between hurting their relationship with a person that is their friend and likely to recover or a hostile enemy that is almost certain to attack the person. There was one flaw in this research which I will note that, given the time constraints of an undergraduate thesis, I was unable to overcome. This study viewed the duration from the signing of non-aggression pacts to the terminating event of the start of any war involving the country. A more thorough study would be conducted examining wars that were only between the two signatory states. That being said, those results could be partially interpreted from Figure 1.1 which dealt with conflict between the states. Therefore, Figure 2.1 could be interpreted as the nature of the states that sign the non-aggression pacts in mitigating war rather than the treaty alone. Nevertheless, since non-aggression pacts are more frequently signed between former rivals, then these non-aggression pacts are preventing common types of wars from starting back up (Mattes & Vonnahme, 2010; Lupu & Post, 2016).

Additionally, an argument can be made for why non-aggression pacts are more heavily correlated with the absence of war in these models. One factor that has typically been attributed as leading to war is a system of "lack of information" or asymmetric information (Bearce et al., 2006, pg. 597 citing Morrow, 1989; Fearon, 1995; Wagner, 2000; Reiter, 2003; and Powell, 2004). That is to say, that states may go to war when they do not have all the facts to correctly calculate their ability and/or probability to win a war. One piece of information that could be a

part of this is the response of third-party actors in war. Since non-aggression pacts are frequently signed between former rivals, then these pacts signal to potential adversaries that at least one state will not come to the aid of the aggressor, when the attacked state is in a non-aggression pact with that third party. In essence, the non-aggression pact signals the non-availability of additional allies to a potential attacker. To a degree, these non-aggression pacts are, therefore, acting as signals to other states about the intention of a possible third-party intervention. The concept of non-aggression pacts having a signaling effect has been found in other research, and it presents a possible second way in which the study of treaties could pull from the study of contracts (Long et al., 2007; Lupu & Poast, 2016). When this fact is combined with the test shown in Fig. 1.1, it appears that there is credence to the argument that non-aggression pacts are more likely to mitigate war.

As noted in the foreword, this paper derived from a previous study I did examining the Abraham Accords. Writing this paper on April 15, 2024, just two days after Iran retaliated against Israel by sending a bomb and drone attack, and six months into the continuing Hamas-Israel conflict, it becomes necessary to use one piece of anecdotal evidence. These military conflicts act as a stress test on the Abraham Accords. Signed by nations that have an allegiance to the Arab world, previous research saw that these countries continued to condemn Israel's rhetoric when it opposed the idea that Palestine should exist as a second state. Nevertheless, despite continued turmoil in the region, the non-aggression pacts continue to hold true. Not sufficient evidence, but certainly necessary to the cause of peace, and interesting enough worth noting.

Meanwhile, the offensive treaties analysis follows logically. Offensive treaties are typically signed for the purpose of a specific offensive obligation against a state. Therefore, since

states are committing to aiding in a war, it should not be a surprise that the war is likely to occur. Benson (2012), when discussing both Benson (2011) and Leeds (2003), notes that these offensive alliances inherently lead to the issue of moral hazard. The concept of alliances creating moral hazard, as described at the beginning of the paper, can be presented as follows.[6] If war, or rather the threat of war, is used as a bargaining tool (threat) to have one state yield to the will of another state, then that state is having to balance costs of war with the potential gains from winning the war (Benson, 2012; Fearon, 1995; Wagner, 2000). However, the state may recognize their risk of either losing the war or incurring a heavy loss (cost) from war. By signing offensive treaties, the negotiating states are contracting their risk out to third parties (states that sign the treaty) allowing for both a bolder threat as well as the possibility of incurring a smaller cost. Benson (2012) compares such a risk sharing scheme much like that of an insurance contract.

Like the non-aggression pacts, it is worth noting that for offensive and defensive treaties, it is often the case that these treaties are signed against a specific state initiating a war or against attacking a specific state. This would be like a treaty between Russia and Armenia to only protect against Azerbaijan advances or a treaty between Azerbaijan and Turkey to specifically attack Armenia and only Armenia.[7] Again, this dataset did not specifically code state specifics (i.e., in the above example if the former treaty with Russia and Armenia was signed, but Iran attacked Armenia, then it would still be considered a terminating event). Moreover, a skirmish between the states could have occurred, but if it did not meet CoW's threshold (see in the description above) then it was not considered a war. The flaw in this analysis is understood; however, it is worth noting that this study is still beneficial for two main reasons. The paper is

[6] See Benson (2012) for a more thorough explanation.

[7] To clarify, these are not descriptions of actual treaties but purely hypothetical to try to explain in contemporary terms, what these treaties would look like.

examining the mitigation of war, not of conflicts. Therefore, it is possible that the treaties themselves aided in the prevention of the escalation to an all-out war. Therefore, the absence of any war is still evidence of treaties mitigating war because while it may be absent of all types of war, that includes the specific type of war that the defensive or offensive treaty was signed concerning. Second, these analyses reveal not just the nature of the treaty, but the nature of the states signing the treaty as well.

The original research question was how do security treaties mitigate war. As previously mentioned, the question of if there is a mitigation effect appears to be a larger area of focus than how. Nevertheless, this paper has attempted to tread beyond the topic of if, and present a possible theory of how. The areas of analysis can be divided in two parts. The first, focused on testing the "stability" of three different types of security treaties. This stability aspect is crucial to understand the overarching research question for one main reason. By understanding if a treaty type is less likely to become unstable and end in what may be categorized as a non-peaceful manner, allows foreign policy advisors to determine what types of treaties should be prioritized in peace-making objectives. Afterall, say one treaty type is more likely to see countries join and either violate the treaty or cause instability. Then this treaty should not be the main focus of foreign policy makers. As such, this paper adds to the pre-existing literature in two main regards. First, it attempts to merge the legal literature with the political science literature to create a comprehensive narrative as to how securities treaties still carry the weight of law, despite no binding authority in the contemporary sense. Second, it further adds towards the literature on whether or not treaties mitigate war by adding plausible evidence to the argument that non-aggression pacts lead to peace and adding likely evidence to the argument that offensive treaties lead to war. Finally, if I had more time or a more specific dataset, a future test might be to run

the same analysis but only let the terminating events in the second set of tests (Figures 2.1a-2.3b) be when the states that are relevant to the treaty are involved in the war. Nevertheless, hypothesis 1b appears to have provided supporting evidence to another aspect of treaties, the stability of the treaty themselves.

Finally, this paper has provided evidence as to where foreign policy makers should focus their attention. If their desire is to mitigate war, then based on the tests, it appears that their focus should be on creating non-aggression pacts, that are not asymmetric, and carry a consultation obligation with it. This type of treaty along with these endogenous aspects of the treaty are the most heavily correlated with the mitigation of war.

I do recognize this is essentially the type of treaty that the Kellogg-Briand Pact was, and sort of reflects the ideas presented in Article 51 of the UN Charter. However, there is a level of distinction that can be made. Non-aggression pacts, when they are bilateral, commit states to one another, or contracts states to one another. As such, there is not this vague idea that all states must uphold this broad spanning treaty. Instead, it is broken down into simple obligations. X and Y cannot attack each other. Y and Z cannot attack each other. X and Z cannot attack each other. Additionally, this ability to localize the treaties allows for one treaty to be broken but two to stand. For instance, if Y attacks Z, X andY may still maintain peace as well as X and Z. However, in the case of the Kellogg-Briand Pact, when Japan invaded Manchuria, there is the possibility that a defeatists mentality came upon the remaining states because once a precedence of states breaking that specific treaty occurs, then it is hard to recreate the sanctity of the treaty. *The genie is hard to put back in the bottle.*

Nevertheless, this paper has provided evidence that there are aspects of international law that are worth pursuing and there are types of treaties that could mitigate war. It is important to

focus on non-aggression pacts as that does not require a state to commit to following an ally into war, but rather just requires a commitment to peace. The world may exist in anarchy, but there is a path for peace; it just requires states that are willing to contract for it.

Appendix: War Occurring During Start of Treaty

Figure 3.1: Non-aggression Pacts Effect on War, with Democracy Control

Variables in the Equation

Dependent Variable: Termcause

Time Variate: Alliance_Duration2

	B	SE	Wald	df	Sig.	Exp(B)
Nonagg	-.746	.093	64.995	1	<.001	.474
Cinc2	8.134	.560	210.955	1	<.001	3406.718
Avg_democracy_polity	.003	.005	.399	1	.528	1.003
Consul	-.060	.086	.483	1	.487	.942
Asymm	.343	.126	7.336	1	.007	1.409

Figure 3.2: Offensive Treaty Effect on War, with Democracy Control

Variables in the Equation

Dependent Variable: Termcause

Time Variate: Alliance_Duration2

	B	SE	Wald	df	Sig.	Exp(B)
Offense	1.065	.126	71.523	1	<.001	2.900
Cinc2	7.972	.577	190.755	1	<.001	2898.110
Avg_democracy_polity	.005	.005	1.157	1	.282	1.005
Consul	.121	.085	2.009	1	.156	1.129
Asymm	.572	.124	21.315	1	<.001	1.772

Figure 3.3: Defensive Treaty Effect on War, with Democracy Control

Variables in the Equation

Dependent Variable: Termcause

Time Variate: Alliance_Duration2

	B	SE	Wald	df	Sig.	Exp(B)
Defense	.309	.091	11.536	1	<.001	1.362
Cinc2	8.848	.557	252.441	1	<.001	6960.472
Avg_democracy_polity	.004	.005	.568	1	.451	1.004
Consul	.011	.086	.018	1	.894	1.012
Asymm	.514	.130	15.644	1	<.001	1.673

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