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Shifting Power, Status Quo Dissatisfaction, And Power Parity: Their Effect On The Use Of Coercive Foreign Policy In International Relations

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SHIFTING POWER, STATUS QUO DISSATISFACTION, AND POWER PARITY: THEIR EFFECT ON THE USE OF COERCIVE FOREIGN POLICY IN INTERNATIONAL RELATIONS

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ABSTRACT

How do shifts in the distribution of power effect the foreign policy decisions of states? In this dissertation, I argue that shifts in the distribution of power, status quo dissatisfaction, and power parity work together to significantly impact these decisions. Until this time, the conditional effect of these three variables has only been included in studies of major- or regional-power war, within the theoretical framework of power transition theory. To what extent do these correlates of war apply to foreign policy in general? Borrowing the insights of foreign policy substitution and the logic of the bargaining theory of war, I theorize that rapid shifts in relative state power increase the likelihood that states will engage in economic foreign policy that is aimed at either preserving or altering the status quo distribution of benefits, whether the policy in question is used as a tool of coercion or one of enticement. A key motivating factor for this study is to test the argument, put forward by foreign policy substitution, that similar factors can lead to different policy outcomes. In the empirical analyses, I find general support for this claim.

DEDICATION

This dissertation is dedicated to my wonderful, loving, and endlessly supportive wife, Krystal, and to

my four daughters: Mila, Marta, Maria, and Marilyn. Thanks for your love and support. Finally, I

dedicate this dissertation to God, as nothing is possible without his daily aid.

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CHAPTER I

INTRODUCTION

The motivation for this project came as a result of my exposure and subsequent interest in hegemonic theories of international relations, early in my graduate school career. Of these theories, power transition theory has especially captured my interest. The idea that global and regional hierarchies provide a loose form of governance in the international system is one that refutes both realist and liberal arguments concerning the anarchic international system. The argument that there are benefits to being the top dog, so-to-speak, and that states aspire and compete economically and politically to claim or maintain this position, provides a convincing account of how the international system operates. This is especially true in context of great power war, the phenomenon to which power transition theory owes its existence. It was the great power struggles of WWI and WWII that inspired Organski to formulate and publish the theory in 1958.[1] Since its birth, the theory has enjoyed enduring validation.

Despite its impressive track record, in context of great power war, none have thought to determine whether its key tenets apply to manifestations of international conflict that fall short of war. This is surprising, especially when viewed in light of the observation that interstate war rare, and increasingly so, while other forms of conflictual foreign policy are much more common and becoming more so. For example, the provision of foreign aid increased from 1785 instances in 1962

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[1] Granted, Thucydides argued over 2000 years ago that Athens growth in relative power with Sparta led to the Peloponnesian War. He did not formulate a comprehensive theory, however.

to 4315 in 2007, a 141 percent increase.[2] That the key tenets of power transition theory have not been applied to the analysis of foreign policy outcomes that fall short of war becomes even more surprising if viewed in context of foreign policy substitution, which argues that similar stimuli can lead to different policy outcomes. It is logical that when factors that enhance the probability of war are present but do not result in war, that these same factors are likely leading the states in question to use alternative foreign policy tools that fall short of military force; states are not constrained to the binary policy decision of war or nothing. This logic leads to the main argument of this dissertation—namely, that shifting power, status quo dissatisfaction, and power parity work together to significantly affect the probability of foreign policy options that fall short of war. This dissertation specifically analyzes how the interaction of these factors affects the probability that states will use economic sanctions, bilateral trade relations, and foreign aid in response to the unacceptable demands of their dyadic counterparts.

Empirical Chapter Summaries

Economic Sanctions

The first empirical chapter of this dissertation is a study of the effect of shifting relative power, status quo dissatisfaction, and power parity on the probability of economic sanctions imposition. In this chapter, it is theorized that the effect of shifting power on sanctions imposition is conditional on the level of status quo dissatisfaction and the degree of power parity existent in a state dyad. It is the expectation that, in conditions of uncertainty over capabilities and resolve, shifting power and greater status quo dissatisfaction increase the probability of sanctions, while a greater degree of power parity makes sanctions less likely. The rapid growth of a dissatisfied state makes it more likely that either the increasing state or the declining state will impose sanctions on the other, as a result of over-demanding or under-conceding. However, because senders want

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[2] These figures were obtained using data from Tierney, Nielson, Hawkins, Roberts, Findley, and Popwers (2011).

sanctions to be costless to themselves, a greater degree of power parity in the dyad is expected to decrease the probability of sanctions, as it is costlier to sanction a state that is nearly equivalent in relative power than it is to sanction a state that is much weaker. The empirical results provide support for the theoretical expectations concerning sanctions imposition—namely, that shifting power's effect on the probability of economic sanctions is conditional on the level of status quo dissatisfaction and the degree of power parity in the dyad. The change from a small to large shift in relative power is significant in both averagely dissatisfied and the most dissatisfied state dyads. The implication of these findings is that sanctions imposition is most likely in dyads characterized by a rapid shift in relative power, in favor of the weaker state, and by a high level of status quo satisfaction. Additionally, this is only the case in dyads that are near power parity.

Bilateral Trade

The second empirical chapter analyzes the effect of shifting power, status quo dissatisfaction, and power parity on bilateral trade flows. In this chapter, it is theorized that a dissatisfied state's uneven gains from bilateral trade provide the status quo state with the incentive to reduce its bilateral trade with an increasing, dissatisfied state, the goal being to slow the rate of the latter state's relative increase in power. This is especially true in dyads that are near power parity. A growing, dissatisfied state is likely to use its improved position in the distribution of power to demand a greater share in the distribution of benefits. When this demand exceeds the cost for the status quo state to enact policies that restrict bilateral trade, the incentive to do so is present. Likewise, a dissatisfied, increasing state will have the incentive to enact policies that restrict bilateral trade when the latter's demand to maintain the status quo exceeds the cost for the growing state to enact policies that restrict bilateral trade. Concerns over the gains from trade, and the associated demands to maintain or alter the status quo distribution of benefits are the motivating factors in both state's decision to enact trade-restricting foreign policies against the other.

In addition to the gains from trade arguments, trade may also decline because of the expectation of economic or political conflict. When the expectation of either type of conflict is high, the incentive exists to divert trade with one another to other states. In this vein, I argue that because a rapid increase in relative power by a dissatisfied state increases the probability of economic or political conflict in the dyad, these conditions can signal that the risk of conflict is high. In turn, this signal leads states restrict its trade with each other, leading to a decline in bilateral trade.

Finally, the occurrence of economic or political conflict directly impacts bilateral trade. Because I argue that a rapid increase in relative power by a dissatisfied state increases the likelihood of economic and political conflict, it is more likely that they will occur in dyads composed of an increasing, dissatisfied state and a more powerful, but declining status quo state. This is especially true in dyads characterized by a high degree of power parity. The expectation that economic and political conflict are higher in these dyads, leads to the expectation that these conditions lead to a decline in bilateral trade. The empirical results support the theoretical expectations—namely that rapidly shifting power, status quo dissatisfaction, and power parity work together to exert negative pressure on bilateral trade.

Foreign Aid

In this chapter, I ask how shifting power, status quo dissatisfaction, and power parity work together to affect the use of foreign aid as a tool of foreign policy. Evidence has recently been provided to support the argument that donor states do not only give foreign aid based on whether they enjoy congenial relations with the recipient state (Uzonyi and Rider 2017; Savun and Tirone 2018). Additionally, more recent work by Early and Jadoon (2019) finds support for the argument that donor states use foreign aid to get recipients to act according to their wills. This is accomplished through fear, on the part of the recipient state, of having the aid they are receiving taken away. Following this line of research, I argue that a rapid increase in relative power by a dissatisfied,

weaker state, can incentivize a more powerful status quo power to provide its increasing dyadic counterpart with non-military foreign aid. Unlike the chapters on sanctions and trade, however, I argue that power parity works as a countervailing force on this likelihood.[3] In addition, I argue that these same conditions incentivize the donor to provide larger amounts of aid, when aid is provided.

The motivation for both the provision of aid and providing it in greater amounts, is to foster greater dependence by the increasing, dissatisfied recipient on the more powerful, but declining, status quo state. It has long been argued that asymmetric dependence provides states leverage, with which to impose their wills on dependent states in the international system (Hirschman 1980 [1945]; Pollins 1989). A declining status quo state will be incentivized to provided aid to a growing adversary when the latter's growth, and associated demand to alter the status quo distribution of benefits, outweigh the cost for the status quo state to provide aid—in other words, when the increasing state's growth in relative power will lead a demand to alter the status quo distribution of benefits that is unacceptable to the status quo state. The goal of providing aid, in these conditions, is to disincentivize the recipient from making such a demand—the disincentive being the prospect of losing said provision. The same logic explains why a donor will increase the amount of aid it provides to a growing, dissatisfied, recipient state.

The empirical results provide partial support of the theoretical excitations. First, a rapid increase in relative power significantly increases the probability of the status quo state's provision of non-military foreign aid and this relationship is conditional on the level of status quo dissatisfaction and the degree of power parity existent in the dyad. Contrary to expectations, these same dyadic conditions are found to exert a significant negative effect on the amount of aid donors provide to a recipient.

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[3] It is assumed that power-equivalent states will be less likely to provide each other with aid.

Conclusion

The rest of this dissertation is laid out as follows. Chapter II provides a review of the literature that is relevant to the general theory of this dissertation. The bulk of this review covers studies from foreign policy substitution, bargaining and war, and power transition theory. These theories provide the foundation for the theory offered in the following chapter. Chapter III explicates the general theory. The general theory lays the foundational expectations and mechanisms underlying each empirical chapter. Chapters IV, V, and VI provide the specific arguments and empirical results for the outcomes of interest—namely, economic sanctions, bilateral trade, and foreign aid. Chapter VII concludes this dissertation with a discussion concerning the implications of the results of this study.

CHAPTER II

LITERATURE REVIEW

The literature review is laid out as follows. First, studies of foreign policy substitution are discussed. Of specific importance, from these studies, is the argument that the same or similar stimuli can lead to different foreign policy outcomes. Next, studies of power transition theory are discussed. From these studies, I draw out the key tenets of power transition theory, as well as highlight some of its progression over the last six decades. power transition theory provides the key independent variables (stimuli) of interest of this dissertation. Next, studies based in the bargaining theory of war are reviewed. The bargaining theory of war provides the underlying mechanisms that drive the relationship between the key independent variables (stimuli) of interest and the foreign policies of interest. Bargaining theory also explains how states decide which foreign policy response is appropriate, given the circumstances at the time. A shortcoming of power transition theory is its inability to account for these mechanisms, as a result of its strict focus on system-level variables. Importantly, the bargaining theory of war provides a bridge that facilitates the connection of a system-level theory of major-power war and a dyadic, state-level study of economic coercion. In addition, it answers the question of why and when similar stimuli can lead to the use of different foreign policies.

Foreign Policy Substitution

Foreign policy substitution argues that similar stimuli can lead states to adopt different foreign policy responses (Most and Starr 1984, 1989) and that these decisions may be based on the

same underlying mechanisms (Clark and Reed 2005; McGinnis 1991). Instead of making foreign policy decisions in isolation, states choose from a range of policies, based on domestic and external conditions and the information available to them at the time (Clark 2001; McGinnis and Williams 1989; Palmer and Bhandari 2000). Ignoring the substitutability of foreign policy paints an incomplete picture of how policymakers actually see the world and make their policy decisions and limits our understanding of policymaker behavior (Clark 2001; Most and Starr 1984, 1989; Palmer and Bhandari 2000).

Foreign policy substitution immerged theoretically and empirically in response to the propensity of extant studies of foreign policy to focus on a single policy outcome, as if states only had on possible response to any given external or internal stimuli. In their foundational study on foreign policy substitution, Most and Starr (1984, 1989) argue that these islands of theory and a strict focus on generalizability are only valid approaches to the study of foreign policy if states do not practice policy substitution. Focusing empirically on one policy response can mislead researchers and increase the likelihood of type two errors. In addition, this single outcome focus only makes sense if all policymakers enact the exact same foreign policy in response to the exact same stimuli, with no possibility of substituting one policy for another (389). In line with reality, policy makers have many ways to respond to the same stimuli. Importantly, policymakers choose the policy response that they are both willing and able to use. In other words, they have the means and incentive to enact a particular policy or set of policies.

In addition to laying out the foundational logic of foreign policy substitution, Most and Starr (1984, 1989) speak directly to how changes in relative national capabilities, in context of increasing defensive capacity, can lead states to enact different foreign policies. In formulating their model of foreign policy substitution, they argue that states will increase their defense capacities when they perceive that national risk is greater than their national defensive capacity. However, doing so is only

one possible policy response to the increasing offensive capabilities of adversary. In context of the security dilemma, if State B increases its capabilities and State A views this increase as threatening, State A may either increase its defensive capabilities, or enact some other foreign policy. Most and Starr argue that existing studies of arms races only consider whether State A increases its defensive capabilities or not, ignoring the possibility that they may enact alternative foreign policies in response to State B's increase in national capabilities. Most and Starr point out one problem with their formal model, namely, that states increase their defense capabilities even when they are greater than the risk posed by an adversary's offensive capabilities. Therefore, instead of simply being concerned with whether the nations' defense capacity is greater than the security risk posed by an adversary, it may be that states increase their defense capabilities to simply to maintain the status quo. Ultimately, their particular policy response *de jure* is dependent on which policies they are able and willing to enact.

In his study of diversionary force, Clark (2001) argues that interstate armed conflict is not always a possible or desirable policy response to domestic political challenges. Extant studies of diversionary force ignore the possibility that leaders have other policy tools at their disposal and that these other tools may be more plausible and desirable than engaging in interstate conflict, in response to the prospect of losing power. The best policy response to the declining popularity of the executive depends on the circumstances at the time (also see Bennett and Nordstrom 2000; Enterline and Gleditsch 2000; Regan 2000). Importantly, leader's policy decisions are restrained by domestic institutional restraints and by whether the policy is the response most likely to succeed (642). In context of democratic states, the degree to which the executive has the freedom to choose between policies is affected by how congruent their preferences are with the preferences of legislature. Institutional incongruency, in which the executive and legislature have disparate foreign policy preferences, can render the use of military force both implausible and undesirable, making

other foreign policy responses to domestic political challenges more likely. In this empirical analysis Clark finds institutional congruency to be positively related to the likelihood that the United States will use force rather than resort to trade action. He also finds support for the argument that the best foreign policy responses to domestic private-goods issues, such as rising unemployment, are private-good responses. Specifically, Clark finds rising unemployment to be negatively related to military action and positively related to trade action via the GATT (656-657). Overall, his findings support the policy substitution argument as well as the argument that the best policy response to domestic political challenges depends on the circumstances at the time.

Another important insight provided by studies of policy substitution is the assertion that the same underlying mechanisms may be at work behind the policy making decisions of states. McGinnis (1990) argues that rational choice provides these mechanisms. Specifically, he formulates a rational choice model of arms transfers and super power alignment, arguing that extant studies suffer because of their singular focus on a single foreign policy option. In other words, in their analyses, arms transfers is a binary dependent variable, excluding the possibility that states have alternative policy options to aid them in their quest for greater security and strategic positioning. Noting that regional powers need weapons and superpowers need strategic bases within the former's borders, McGinnis argues that regional powers either purchase arms from superpowers or seek greater superpower alignment and that this decision is based on the calculations of rational states. Because states face constraints on which policies they enact, as a result of economic and political opportunity costs, they choose the least costly policy that still enables them to achieve their foreign policy goals.

To Clark and Reed (2005), strategic interaction provides the underlying mechanisms that drive the foreign policy decisions of states. Their theory combines strategic interaction and foreign policy substitution, arguing that the strategic considerations of states influence their foreign policy

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decisions. Strategic interaction implies that states have the ability to influence the set of policy options that another state can use against them, as well as strategically choose their responses to the actions of other states. Empirically, the authors utilize a simultaneous multivariate probit model to analyze the conditions that increase the likelihood that the United States will be targeted by a foreign state, when they will respond by imposing sanctions, and when they will respond by using force. In their empirical analysis, they find support for the argument that states' foreign policy decisions are strategic. Although they fail to find support for the expectation that the U.S. more likely be targeted when the president is politically healthy, they do find that the U.S. is more likely to use force or sanctions when targeted by states that are nearer to power parity with the U.S., and that the U.S. is less likely to impose sanctions when targeted by more democratic states.

Generally, the substitution literature informs us that the foreign policy choices of states are not binary; it is not a simple choice between war or no war, or sanctions or no sanctions. Rather it is a choice of war or sanctions, alignment or arms transfers, and many other substitution scenarios that are too numerous to mention (Most and Starr 1984, 1989). Additionally, which foreign policy options are viable, in any given situation, is conditional on both domestic and external restraints. Important, for the purposes of this dissertation, is foreign policy substitution's insight that similar stimuli, whether domestic or external, can lead states to make different policy decisions. Additionally, and equally important, the foreign policy decisions of states may be driven by the same underlying mechanisms. In the studies above, these underlying mechanisms are explained in terms of rational choice and strategic interaction. In this dissertation, they are explained in terms of bargaining theory.

The insight that similar stimuli can lead states to enact different policy options implies that theories primarily concerned with one type of policy outcome, for example war, can be applied, at least in part, to the study of other policy outcomes. For example, the stimuli of interest to this

dissertation are those proffered by power transition theory, which argues that shifts in the distribution of power, in which a weaker, dissatisfied state overtakes the system leader, are necessary but insufficient causes of major power war (Organski and Kugler 1980). By placing power transition theory in the context of policy substitution, it becomes apparent that when these conditions are present but do not lead to armed conflict, the states in question may be, instead, relying on non-violent, or less costly, forms of coercion to reach their policy goals. In other words, it is not simply a choice between great power war or no great power war. Rather, shifting power, status quo dissatisfaction, and power parity may lead to war or it may lead to a host of other policy options instead.

Power Transition Theory

The following works are foundational to power transition theory and lay out its key tenets and theoretical expectations. Because of its centrality to the current study, power transition theory is given an extensive review. Numerous studies analyze the effect of relative state power on the probability of interstate armed conflict and can be grouped into two competing paradigms. The first argues that power parity leads to peace while the second argues that peace is most likely in conditions of power preponderance. Realism's Balance of Power falls into the former and power transition theory into the latter. This dissertation is interested in the preponderance paradigm. Studies based in power preponderance argue that the probability of interstate conflict increases when two states are nearly equivalent in military or economic power (Bennett 2006; Bennett and Stam 2009; Bremer 1992; Fearon 1995; Gochman 1990; Kugler and Lemke 1996; Lemke 2002; McCormick and Pascoe 2017; Organski 1958; Organski and Kugler 1980; Powell 1996, 1999, 2006; Weede 1976; Werner 1999; Wittman 2001). Power Transition Theory is the dominant theory in the power preponderance paradigm.

Organski (1958) introduced power transition theory to the field of International Relations, arguing that power parity, not preponderance, increases the likelihood of great-power war. This is in direct opposition to the Realist Balance of Power which argues that power parity increases systemic stability and peace (Morgenthau 1948; Waltz 1978). Importantly, Organski formulated Power Transition as a strictly system-level theory of armed conflict, with the goal of explaining how the changing distribution of power in the international system affects the probability of major-power war and peace.

Conditions leading to war.

Per Organski, two conditions increase instability in the international system and enhance the probability of major-power war. First, a shift in the distribution of power in which a growing state is near to overtaking, or has surpassed, the declining system leader in relative power.[4] When two states are at or near power parity both are more likely to believe that they will be victorious in war, increasing the probability that they will engage in armed conflict. In contrast, in conditions of power preponderance, it is clear which side will win, making the decision to go to war less attractive, as the dominant state sees no need to attack a much weaker power and the latter state has no incentive to challenge the dominant power. The significance of the transition highlights the importance of shifts in the distribution of power in the Power Transition story. Second, the growing state is dissatisfied with the status quo that is established and maintained by the declining system leader. Therefore, major-power war is especially likely when a dissatisfied, rising challenger is close to surpassing, or has surpassed, the system's dominant state in relative power.

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[4] There is no consensus on whether this occurs before or after a power transition. Also, see Lemke (2004, 55-56). In my analysis, I define a transition as a state moving into a position of relative power that is greater or equal than 80 percent of the dominant state's power. This is the percentage used in most studies based in power transition theory.

A hierarchy of states.

Another key tenet of power transition theory is how it defines the structure of the international system. In direct opposition to the Realist concept of the anarchic international system, Organski argues that the system is arranged hierarchically, with the most powerful state sitting atop the relative power hierarchy. In Organski's formulation, the most powerful state in the system, referred to as the system's dominant power, leads the international system in economic and political might. The rest of the states in the international system either benefit from the status quo, established and maintained by the dominant state, or they are dissatisfied and will seek to revise the status quo once their own capabilities rival or surpass that of the dominant power. While Organski agrees that some aspects of the international system are characterized by anarchy, it is usually only manifest in cases of international conflict, not in times of peace. This is a direct result of the system's hierarchical structure.

The concept of power.

Important to any power-centered theory of international relations is how power itself is conceptualized. Power transition theory argues that state power and growth is primarily driven by internal economic expansion.[5] Organski's original conception of state power was in purely economic terms, in the form of GDP per capita. As the study of power transition theory progressed, the conceptualization of state power remained economically based in GDP but became conditional on the level state capacity to extract economic resources from its citizens (Organski and Kugler 1980). The logic behind this conditional relationship is that governments that are unable to effectively extract income from their citizens cannot use it to increase their power, regardless of the amount of internal wealth being generated. The idea that state power is linked to state wealth assumes that

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[5] Unlike Realism, power transition theory argues that alliances are sticky and not easily manipulated to augment national capabilities.

income is fungible and can be used to expand military capabilities when needed. Lemke (2001) relies

on the basic GDP-based measure of state power in his main analysis but finds similar results when

performing the analysis with the more complex Composite Index of National Capabilities (CINC)

from the Correlates of War Project (Singer, Bremer, and Stuckey 1972). GDP per capita and CINC

remain the two most common proxies for state power in studies of power transition theory.

Status quo evaluations.

Another key tenet of power transition theory is its argument concerning status quo

evaluations, which are defined in either global or regional terms (Kugler and Organski 1980; Lemke

2002). Generally, satisfied states are defined as those having more shared preferences with either the

global or reginal dominant power, while dissatisfied states hold more disparate preferences from the

dominant status quo state (Clark, Nordstrom, and Reed 2008; Gartzke 2006; Kim 1992; Signorino

and Ritter 1999; Souva 2004). Important as status quo evaluations are to power transition theory, to

date, there is no consensus on the best way to measure this important concept. As a result, multiple

proxies have been used to this end.

To illustrate this point, Kim (1992) relies on Bueno de Mesquita's (1983) alliance portfolio

similarities to measure status quo satisfaction. Other measures are Signorino and Ritter's (1999) S-

Scores, and Gartzke's (2006) Affinity of Nations Index, the former relying on alliance portfolio

similarities and the latter on voting similarity among states in the United Nations General Assembly.

Clark, Nordstrom, and Reed, (2008) define status quo dissatisfaction as a function of a relative

power and benefit disparity. They also construct their measure using UN roll-call data. Using UN

roll-call data to measure differences in policy preferences can prove problematic, however, as LDC's

almost always vote as a block, resulting in very little variation in roll-call voting behavior among

minor-powers.[6] This observation is what motivated Lemke (2002) to, instead, use military expansion as a proxy for status quo dissatisfaction in his study of relative power's effect on the probability of war between states in regional hierarchies. Souva (2004) also deviates away from using UN voting data or alliance portfolios, basing his measure of status quo satisfaction, instead, on institutional similarity.

Progression of power transition theory.

Since its conception, power transition theory has remained close to its theoretical roots, laid out by Organski. In addition, most studies are still concerned primarily with relative power's effect on the probability of great-power war, with a few deviations. There is much room for further generalization, however, such as how the tenets of the theory can be applied to the analysis of international conflict that falls short of war, the main task undertaken in this dissertation.

Since Organski's (1958) introduction of power transition theory, it has progressed to incorporate additional key variables, operationalizations, and methodological approaches. For example, Kugler and Organski (1980) extended power transition theory beyond Organski's original conception by testing its claims empirically, providing evidence that the shift in relative power, leading to a power transition, is a necessary but insufficient condition for major-power war. As mentioned, Organski and Kugler also argue that state power is conditional on their capacity to exact resources from their populace. Additionally, they argue that states seek to maximize their net gains, not power, implying that peace is possible when it is more profitable than going to war.[7] This last point moves away from the Realist focus on power maximization and tacitly implies for the need to incorporate a unitary-actor approach into the Power Transition argument. In addition, it implies that

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[6] A separate analysis was performed using UN roll-call data and the results remain constant with those in the main analysis using democracy scores. I also tested the correlation between the UN measure and the Polity IV measure and found that they are roughly 28 percent correlated.

[7] This sets the stage for analyzing shifting power and conflict in context of rationalist bargaining, something Power Transition does not attempt. Hsiao-Chuan's (2016) study is based on this premise and the current study follows suit.

the underlying mechanisms of power transition theory are based in rational choice and foreign policy substitution, something the theory does not lay out explicitly.

The goal of each of the studies reviewed thus far is to explain the effect of changes in the distribution of power in the international system on the probability of major-power war. Lemke (1996, 2002), on the other hand, expands power transition theory's explanatory power by illustrating its applicability at the regional level of analysis and among minor-powers. Specifically, Lemke argues that regional hierarchies of states operate according to the same mechanics as the global hierarchy laid out by Organski (1958). One caveat to this parallel, however, is when the intervention of global powers in regional politics does not allow the regional leader to act according to the expectations of power transition theory.[8] Overall, Lemke's work represents an important progression in power transition theory, and one that paves the way for further generalization.[9]

Criticisms of power transition theory.

While power transition theory enjoys robust empirical validation of its main tenets, its system-level application prevents it from adequately identifying the mechanisms that drive the relationship between its key independent variables and armed conflict. To remedy this, the theory needs to incorporate the logic of rational choice and interstate bargaining. Some have taken up this task.

Picking up on Organski and Kugler's (1980) assertion that states seek to maximize their net gains, instead of power, Hsiao-Chuan (2016) constructs a rational choice model to explain why shifting power and dissatisfaction may not always lead to major power war. She argues that because power transition theory focuses on system-level variables, it ignores state-level factors that affect the decision to engage in war, echoing the arguments of Wayman (1996). Hsiao-Chuan contends that

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[8] This is an important point, as the current study seeks to apply power transition theory to the use of economic coercion between both major and minor powers.
[9] i.e., to the dyadic level of analysis and to economic coercion.

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not all power transitions involving a dissatisfied challenger lead to war because of the dynamics of strategic interaction and variation in the ordered preferences of states (24). In other words, the costs and payoffs of war are not constant across all states and issues. If peace leads to larger net gains than war, a power transition may not lead to conflict, a point that Organski and Kugler (1980) made but did not formulate. Overall, Hsiao-Chuan provides a convincing argument for the need to modify power transition theory to include the strategic decision-making calculus of states, in order to provide the theory with greater explanatory power. She does not address, however, the possibility of foreign policy substation. While she explains why shifts in power and dissatisfaction may or may not lead to war, she makes no attempt to explain what policies they are choosing to use in its place. In other words, the only two possibilities are war or no war. This dichotomous treatment of international conflict ignores the realities of how policymakers actually see the world and make decisions.

Another criticism of power transition theory is that researchers have failed to adequately operationalize and incorporate shifting power into their empirical analyses. For example, Wayman (1996) argues that existing studies of power transition theory do not do enough in the way of testing the dynamics of relative power's effect on the probability of major-power war. Although the theory is about shifting power, extant studies have relied primarily on static measures of power in their empirical analyses. As a result, the operationalization of relative power in their analyses is the static distribution of power between states. This operationalization fails to capture the shift altogether. Because of this mis-operationalization of shifting power, existing studies misunderstand when changes in the distribution of power increase the probability of war. Correcting this operationalization error, Wayman argues that rapid shifts in power can lead to major-power war in the absence of a power transition, a vast departure from the main body of power transition theory studies.

Wayman offers five reasons for why transitions are not necessary for major-power war, however, the second is especially relevant to the current study. Namely, a shift in power can increase the probability of major-power war because it fosters an appetite for a greater share of competitive goods on the part of the growing state, and one of apprehension on the part of the declining status quo power. The latter's fear is that the rising power will develop greater capacity to challenge its dominance in the future (147). Both arguments echo those put forward by the bargaining theory of war concerning the incongruency between the distribution of power and the distribution of benefits, an argument that is discussed in detail in the next section of this literature review. Wayman's departure from most power transition theory studies, concerning the necessity of a power transition for the occurrence of major-power war, is worth noting and implies the need to incorporate rational choice and bargaining into the arguments of power transition theory.

While power transition theory provides a resilient explanation for the occurrence of major-power war, it does not answer three important questions. First, it does not address the question of why all power transitions consisting of a dissatisfied challenger do not lead to major power war, a point that Hsiao-Chuan (2016) addresses. Secondly, and related, it does not answer the question of why a declining system leader and a rising dissatisfied challenger cannot come to an agreement that both prefer to armed conflict, avoiding war's ex-post inefficiency. This is Fearon's (1995) insight and is discussed in detail below. Finally, power transition theory does not answer the question of how shifting power, power parity, and status quo evaluations, apply to interstate conflict that falls short of war. To answer these questions, I turn to the insights offered by the bargaining theory of war.

Bargaining and War

Studies of power and conflict, based in the bargaining theory of war, argue that armed conflict is more likely when the distribution of benefits between two states does not match the dyadic distribution of power (Fearon 1995; Powell 1996, 1999; Reed, Clark, Nordstrom, and Hwang

2008; Werner 1999).[10] Importantly the bargaining theory of war is a theory of interstate conflict, applying to armed conflict between all state dyads; therefore, it is not restricted to explaining conflict between major-powers. In addition, it is easily adapted to explain other manifestations of international conflict that do not involve military force. In other words, it is ideal for explaining why states choose different policies in response the same stimuli. This is key as it is the goal of the current study to determine whether the key tenets of power transition theory can be applied to, not only a wider swath of states in the international system, but also conflictual foreign policy options that fall short of war. The insights of the bargaining theory of war, coupled with the arguments of foreign policy substitution, facilitate the application of power transition theory to economic coercion.

Reed, Nordstrom, and Hwang, (2008) succinctly lay out the logic of the bargaining theory of war. Following the arguments of other studies that incorporate bargaining into the study of power parity and war, they explain that ". . . disparity between the distribution of power and the distribution of benefits increases the chances of war" (1205). Using the example of the distribution of territory, they argue that a revisionist state will demand a reallocation of the territory, in its favor, when the current allocation is not commensurate with its position in the dyadic distribution of power. As the challenger rises in power, its appetite for benefits will increase their willingness to go to war with the major power to obtain those benefits. The defender will acquiesce to the revisionist's demand if the distribution of power favors the latter. This assumes that the distribution of power represents the probability of victory by the revisionist if the states should fight over the issue. Both the calculation of the revisionist, concerning the demand for more territory, and the calculation of the defender, concerning whether to reject or accept the demand, is based on their evaluations of

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[10] This is similar to Wayman's (1996) argument that an increase in relative power can lead to an increased appetite for benefits on the part of the growing state.

the distribution of power and the distribution of benefits, ex-ante. Importantly, Clark, Nordstrom, and Reed, argue that an incongruency between the distribution of benefits and the distribution of power increases the probability of war, regardless of where the dyad falls on the distribution of power continuum.[11] In this formulation, neither power parity nor a power transition are necessary conditions for war. A key contribution of Reed, Nordstrom, and Hwang's (2008) study is their construction of a proxy measure for the dyadic distribution of benefits, measured by calculating disparities in UN roll-call votes. They argue that larger disparities in voting behavior translate to larger disparities in state preferences. Larger disparities in preferences, in turn, translate to greater disagreement over the status quo distribution of benefits (1207, 1209).[12] In their empirical analysis they find support for their theoretical expectations.

   The bargaining model of war.

   Fearon's (1995) work on bargaining is foundational to the bargaining and war literature. He argues that existing theories of armed conflict do not answer the question of why states fail to come to ex-ante agreements that avoid the ex-post inefficiency of war. War is inefficient because both states engaged in armed conflict incur costs by fighting. As a result, both states will receive more of the disputed good via a negotiated settlement than they can obtain through war. Fearon argues that existing studies based in Neorealism as well as those based in rational choice fail to address this question adequately. To remedy this shortcoming, Fearon provides three main mechanisms that prevent rational states from settling on such an agreement.

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[11] This similar to Wayman's argument and evidence suggesting that a power transition is not necessary for shifting power to lead to war.

[12] The measure I use for status quo satisfaction is absolute differences in regime-type. The logic behind my measure is the same as Reed, Nordstrom, and Hwang's (2008) logic behind their measure for the distribution of benefits. My measure of status quo satisfaction can also be considered a proxy for benefit distribution; likewise, their measure can be considered a proxy for status quo satisfaction.

First, state leaders hold private information concerning their own capabilities or resolve to use force and have the incentive to misrepresent this information to obtain greater concessions when bargaining. Private information concerning one's own capabilities or resolve, and the incentive to represent this information to an adversary, can result in war when it causes one state to demand too much or give too little when bargaining, making war less costly than acquiescing to the demand. Key here is the incentive to misrepresent this information. Relying only on the explanation of private information is not sufficient to answer why states go to war. The question of why states do not share this information, ex-ante, must also be answered. Secondly, states may not be able to credibly commit to keep the terms of agreements they have made with other states. Bargaining failure in this case is a result of a commitment problem. Commitment problems can lead to war between states when one of them cannot credibly commit to honoring the terms of a negotiated settlement. Fearon explains that commitment problems can lead to two types of war: preemptive and preventive. A preemptive war occurs when states cannot credibly commit to an honor terms of an agreement because of a strong first strike advantage. Preventive wars occur when an expected increase in relative capabilities prevents the increasing state from credibly committing to not using the increase to seek greater concessions in the future. In this case, the declining state has the incentive to attack immediately to lock in the current distribution of benefits, so long as the costs of war are outweighed by the cost of its relative decline. Third, issue indivisibilities can lead to bargaining failure and war. This refers to instances in which the benefits in question cannot be divided in such a way that is preferred by either side to war.

Fearon believes the first two explanations carry the most validity, acknowledging that most issues are not truly indivisible. Similar to power transition theory, Fearon illustrates that shifting power can lead to armed conflict between states; however, like Wayman (1996) and Clark, Nordstrom, and Reed (2008) Fearon does not argue the necessity of a power transition. Nor does he

argue the necessity of power parity.[13] Fearon's goal is simply to establish a theory of armed conflict that takes into account factors that existing studies of armed conflict have neglected to consider adequately.[14]

Bargaining and economic coercion.

The studies based in bargaining discussed, thus far, address the question of how relative power and the satisfaction with the status quo affect the occurrence of armed conflict; however, they make no attempt to answer questions in this question in context of foreign policy options that fall short of war. In contrast, the studies that follow base their arguments concerning economic coercion within the bargaining framework. Doing so is not new, as notable studies span at least the last thirty years (Tsebelis 1990; Eaton and Engers 1992; Smith 1996; Drezner 1999, 2003; Morgan and Miers 1999; Dorussen and Mo 2001; Lacy and Niou 2004; Morgan, Bapat, and Krustev 2009; Krustev 2010; Morgan, Bapat, and Kobayashi 2014; Hull 2015; McCormack and Pascoe 2017), with some of these arguing from the foreign policy substitution perspective (Drezner 1999, 2003; Morgan, Palmer, and Miers 2000; Selden 1999). Most of these studies borrow their theoretical insights from the bargaining theory of war and, with minor modifications, apply those insights to the analysis of economic coercion. For example, Krustev (2010) argues for the need to incorporate endogenous demands into the theory and analysis of economic sanctions, specifically stating that this is an adoption from the crisis bargaining literature. He states ". . . in accord with the crisis

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[13] It is not Fearon's intent to formulate a theory of systemic major power war, as was the intent of Organski and other Power Transition scholars.

[14] Powell (2006), agrees that shifts in the distribution of power can lead to a commitment problem, resulting in preventive war; however, he also argues that shifting power can lead to preventive war in conditions of perfect information. This is possible when large-rapid shifts in relative power occur (181). Powell's key point is well summarized when he explains that because of the anarchical nature of the international system, in which there is no governing body to enforce agreements between them, states are tempted to renege on agreements they make. This can lead to conflict when either state prefers fighting over acquiescing to the other's demands, even when each knows the capabilities and resolve of the other. This happens when the cost of acquiescing outweighs the cost of armed conflict.

bargaining literature and contrary to sanctions research, I endogenize the status quo change demanded by the sender and the sender's decision to challenge the status quo" (148).

McCormick and Pascoe (2017) argue that sanctions can reduce the likelihood of preventive war between states in the international system. This is possible when sanctions are used by states to preserve the status quo distribution of power by slowing or stopping the rise of an adversary that is expected to experience an increase in relative power. This "smoothing" is accomplished by employing "moderately destructive" sanctions that degrade the military capabilities of the adversarial state, making an advantageous shift in relative power less likely, thus reducing the likelihood of a commitment problem-driven preventive war. In other words, instead of preventive war states can engage in preventive sanctions to inhibit? the growth of an adversary thus negating the need for armed conflict. Through a game theoretic model, the authors provide evidence suggesting that states may use sanctions to preserve the status quo distribution of power and in so doing the status quo distribution of benefits. The key implication is that when sanctions are effective at "smoothing" a shift in power the type of commitment problem-driven war Fearon (1995) and Powell (2006) write about can be avoided through the use of a foreign policy option that falls short of armed conflict. Another implication of McCormack and Pascoe's study is that economic coercion, in this case sanctions in addition to armed conflict, represent an outside option available to states when bargaining fails, and that sanctions are used in response to expected shifts in relative power.[15]

Two important assumptions underlie McCormack and Pascoe's (2017) arguments. First, all international relations can be analyzed within a bargaining framework whether analyzing armed conflict or economic coercion. In their study states decide which foreign policy option to employ

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[15] This is not the main point of their study but an important implication, none the less, that provides a foundation and starting place for the current study. The main argument of my dissertation is that shifts in relative power can increase the probability of economic sanctions imposition. McCormick et al. did not test this implication and only mentions it briefly.

depending on the magnitude of an adversary's shift compared to their own cost to initiate armed conflict or impose economic sanctions. The decision to use sanctions or armed conflict are both based on the strategic calculations of policy makers. Second, shifts in relative power can increase the likelihood of the imposition of economic sanctions. The authors argument is that when an expected shift in power will be more costly than the status quo state's cost to engage in armed conflict, preemptive sanctions are imposed to destroy military capabilities and prevent the shift from ever occurring, negating the need for preventive war.[16]

Power parity and economic coercion.

As power parity is one of the key variables of power transition theory, it is important to know how extant studies of economic coercion treat this important factor. Hull (2015) analyzes the relationship between the static distribution of power and the imposition of economic sanctions; however, he does not attempt to analyze the effects of shifting power. He argues that power parity, coupled with state rivalry increase the probability of and the imposition of economic sanctions.[17] From a foreign policy substitution perspective, he contends that power parity makes war an especially costly foreign policy option, making the less costly economic sanctions more likely.[18] As with other studies based in policy substitution, he argues that states choose either war, economic coercion, or diplomatic sanctions when making foreign policy decisions. Economic coercion falls between least costly diplomacy and most costly armed conflict (13). The costs of each policy option relative to the others are key to this calculation. If a state can get what it wants from another state by using sanctions rather than engaging in a costlier war it will do so.[19]

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[16] My argument is similar but not identical. Their argument is that sanctions can be imposed in the shadow of preventive war. My theory does not require preventive war to be looming on the horizon. In addition, my theory is concerned with shifts in relative power that have occurred, not in those that are expected to occur.

[17] State rivalry is simply another way to capture status quo evaluations of the states in question.

[18] This study adopts the same view.

In his empirical analysis Hull finds partial support for his expectations. Namely, that power parity's effect on the imposition of sanctions is conditional on state rivalry. Contrary to expectations however, he finds that power parity is negatively related to the imposition of economic sanctions while rivalry's effect is positive. In other words, sanctions are more likely between rivals that are further from parity. This finding reinforces the findings of Lektzian and Sprecher (2007) that state leaders seek to impose sanctions that are costless to themselves, especially the leaders of democratic states. Imposing sanctions on a nearly equipowerful adversary is more costly than imposing sanctions on an adversary that is far more inferior in relative power.

Drury, James, and Peksen (2014) also find a negative relationship between power parity and the imposition of economic sanctions, offering two theoretical reasons for why this is the case. First, weaker states may be more vulnerable to sanctions. Second, powerful states are better able to afford the cost associated with imposing sanctions (35). The latter explanation is the same offered by Reed, Nordstrom, and Hwang, (2008). Together, the findings of Hull (2015), Drury, James, and Peksen (2014), and Lektzian and Sprecher (2007) effectively establish that power parity, a key variable in studies based in power transition theory, is negatively related to and the imposition of sanctions. This runs counter to Power Transition's expectations concerning its effect on armed conflict.[20]

It is important to mention that Drury, James, and Peksen (2014), Hull (2015), and McCormick and Pascoe (2017), represent the few studies that directly address the effect of relative state power on the likelihood of economic coercion. The findings of Hull and Drury et al., provide evidence that, unlike armed conflict, power parity decreases the probability of economic sanctions. In addition, they support the findings of past studies of power parity and armed conflict which find that the relationship between power and war is conditional on status quo evaluations. McCormick

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[20] As the current study borrows heavily from power transition theory, it is important to point out that expectations concerning the static measure of relative power are in line with the findings and theoretical explanations of the three studies mentioned. They effectively establish that power parity is negatively related to sanctions imposition.

and Pascoe provide formal evidence for a relationship between economic sanctions and shifting relative power. They argue that moderately destructive sanctions can be used by states to smooth or prevent an adversary from increasing in relative power thus negating the need for preventive war. Importantly, both studies provide evidence that the relationship between relative power and conflictual interstate relations extends to foreign policy options other than armed conflict, specifically to economic coercion.

Conclusion

Power Transition Theory and the bargaining theory of war provide strong arguments and robust empirical evidence concerning the relationship between relative power and international conflict at the systemic and regional levels, as well among state dyads. However, neither addresses the effect that changes in the distribution of power and status quo evaluations have on the probability of interstate conflict that falls short of military action. A few studies of economic sanctions have analyzed the effect of static relative power in this respect but fail to mention shifting power altogether. Only McCormack and Pascoe (2017) offer any insight concerning shifting power and economic coercion; however, they do not put their formal model to quantitative analysis. It is the goal of this dissertation to remedy these shortcomings and provide insight into how the key tenets of power transition theory apply to economic coercion between states in the international system.

In the theory section that follows, I apply the insights of power transition theory, foreign policy substitution, and the bargaining model of war to answer the question of how relative power and status quo evaluations effect the use of economic coercion. Power Transition Theory provides a recipe for interstate armed conflict and peace but does not answer questions that are not posed at the system or regional level of analysis. In contrast, the bargaining theory of war enables us to explain the mechanisms that are blurred by the purely system-level focus of power transition theory.

Foreign policy substitution informs us that similar stimuli can lead to different foreign policies. The synthesis of these three theories not only provides a clearer understanding of why and when relative power and status quo evaluations increase the probability economic coercion, but of interstate conflict in general, addressing some of the shortcomings of power transition theory and expanding its explanatory power

CHAPTER III

GENERAL THEORY

How do shifts in the distribution of power effect the foreign policy decisions of states? In this dissertation, I argue that shifts in the distribution of power, status quo dissatisfaction, and power parity work together to significantly impact these decisions. Until this time, the conditional effect of these three variables has only been included in studies of major- or regional-power war, within the theoretical framework of power transition theory (Lemke 2002; Organski and Kugler 1980). To what extent do these correlates of war apply to foreign policy in general? By posing this question another naturally arises of how to best justify applying a theory of war to the study of the other foreign policy tools available to states. I contend that foreign policy substitution best facilitates this endeavor.

It is legitimate to ask whether applying a theory of international conflict to the analysis of economic sanctions, foreign aid, and bilateral trade presents an apple to oranges dilemma.[21] I argue that this is simply not the case. This is not the first study to apply the theoretical expectations of a theory of armed conflict to the study of conflictual interstate interactions that fall short of war, even outside the theoretical framework of foreign policy substitution—for example, Lektzian and Souva (2003) provide validation for the argument that factors associated with an increased probability of

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[21] See Singer (1961).

armed conflict can also be associated with a greater probability of economic sanctions.[22] They do so by extending the argument of the democratic peace to the imposition of sanctions by arguing that democracies are less likely to sanction each other than they are to sanction non-democracies. Of course, this is the key tenet of foreign policy substitution as well.

At its core, foreign policy substitution argues that similar stimuli, whether domestic or external, can lead states to make different foreign policy decisions at different times (Morgan and Palmer 2006; Most and Starr 1984, 1989).[23] In line with this reasoning I argue that when shifting power, status quo dissatisfaction, and power parity do not lead to war, they may lead states to enact other foreign policies that fall short of war. Specifically, I argue that when these conditions do not lead to war, they can lead to the imposition or easing of economic sanctions, the provision or recension of foreign aid, or to less or more favorable bilateral trade relations.[24] It simply ignores reason to argue that states simply take no action when they are either unable or unwilling to use armed conflict as a tool of foreign policy, regardless of the stimuli under consideration.

Importantly, foreign policy substitution informs the current study's expectations concerning the policies that are available to states as well the policies they choose to enact. In line with the arguments that national resources (capabilities), and domestic political institutions largely determine the foreign policy options that states have at their disposal, this study espouses the argument that more powerful, resource-rich states have a greater variety of foreign policy tools at their disposal than less powerful, resource-poor states; however, this is likely conditional on domestic political institutions. In line with Clark, Nordstrom, and Reed (2008), I also agree that powerful, resource-

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[22] See Clark (2001) and Clark and Reed (2005) for examples of studies analyzing the substitution of economic sanctions for military force.

[23] The theory offered in this dissertation focuses on external stimuli, --namely, the rapid increase in relative power by an adversarial state.

rich states are the most likely to engage in costlier forms of foreign policy—for example, war and economic sanctions. Both arguments are based on the observation that states with greater resources have larger budgets with which to fund a greater variety of policy options, as well as to fund more costly policy options, than do their resource-poor counterparts.

In context of power transition theory, Clark, Nordstrom, and Reed's (2008) second argument may, at least in large part, explain why the theory was formulated and has been largely reserved for the study of major-power war; major powers simply have larger budgets with which to utilize war as a foreign policy tool than do minor powers. They are observed fighting major-power wars because, A, they are major powers, and B, they have the resources necessary to fund them.[25] The second argument may also shed partial light onto one of power transition theory's key tenets— namely, that major-power war is most likely to occur when a rising, dissatisfied state is close to, or has surpassed, the system leader in relative capabilities. Per the logic of foreign policy substitution, it is at this point that both the status quo and revisionist state are most likely to possess the resources necessary to wage major-power war. This is also the point at which the demand of either side, to alter or maintain the status quo, is more likely to exceed the cost of war.

Foreign policy substitution also has important implications for dyadic configurations other than those consisting of two major power. For example, what is the implication for dyads characterized by power preponderance, in which the state dyad consists of a major-power and a much weaker, but rapidly increasing, adversarial minor-power?[26] It follows logically, in these cases, the major-power will have the resources to wage war, while the same will not likely be true for its less powerful dyadic counterpart. Therefore, per the logic of substitution, we should expect war to

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[25] Another reason for power transition theory's singular focus on war is that when Organski (1958) first introduced the theory, the field of international relations was mostly concerned with the "high politics" of war. This is not surprising as World War II had ended just over a decade before its publication.
[26] This is another question left unaddressed by power transition theory.

be less likely, and other less costly policies to be more likely in conditions of dyadic power preponderance. Even if the much weaker state in the dyad experiences a rapid increase in relative power, it will be relatively less costly than an increase of similar magnitude by an adversarial major-power that is closer to power parity with the status quo state. Moving to dyads consisting of two minor powers, it is more probable that neither state has the resources to use armed conflict as a tool of foreign policy. They simply do not have large enough budgets, on average. In minor-power dyads, the rapid rise of an adversarial state will more likely result in foreign policy responses that are less costly than armed conflict. This does not mean that minor powers do not fight, however, as a look at the empirical record will quickly prove otherwise.

In summary, it is the general expectation that rapid increases in relative power, by a dissatisfied state that is near parity with its more powerful dyadic counterpart, increases the probability that either state will enact foreign policies that are aimed at disincentivizing the other from making demands to maintain or alter the status quo. However, this relationship is conditional on the degree of power parity existent in the dyad and whether the dyad consists of at least one major power or contiguous states. This leads to the general proposition of this dissertation:

P1: Among relevant dyads, a rapid increase in power by a dissatisfied state increases the probability that either the declining or increasing state will enact foreign policies aimed at disincentivizing demands to alter or maintain the status quo distribution of benefits, respectively, but this relationship is conditional on the degree of power parity existent in the dyad.

The remainder of this chapter turns to the task of delineating the theory and causal mechanisms in greater detail and culminates with three testable hypotheses concerning the effect of shifting power, status quo dissatisfaction, and power parity on the use of economic sanctions, bilateral trade, and foreign aid as tools of foreign policy. The first task is to discuss the cases to which the theory is applicable.

Scope Conditions

The valid question has been raised of whether it is appropriate to apply power transition theory to state configurations outside of the usual system- or regional-hierarchical structures. In light of this question, I argue that the international system consists of at least three types of hierarchical structures. The first is the hierarchy of the international system. The second is the hierarchical structure of each region in within the international system. The third is dyadic hierarchy. Holding the top position in each hierarchic structure is a dominant state that fashions the respective status quo of the hierarchy under consideration. The most powerful state in the international system holds the top position in the system hierarchy, the most powerful state in each region holds the top position its respective regional hierarchy, while the most powerful state in a dyad holds the top position in the dyadic hierarchy. If it is valid to argue system and regional hierarchies exists, then logic demands that hierarchy exists at the state dyad level as well. Arguing otherwise would not qualify as being logically consistent.

Does this view of the international system justify applying the theory or power transition to state dyads? I argue yes, but with conditions. As stated, I believe that doing so is not only appropriate but logical. Even as hierarchy exists at the international system and the regional level, hierarchy must also exist at the dyadic level. Even as relative power and the status quo matter at the system level, it matters at the regional and dyadic levels. At the system level, the United States is necessarily concerned with a rising China. Changes in the distribution of power, coupled with China's desire to refashion the status quo according to its own preferences, means that changes in the distribution of power matter. Likewise, at the regional level, an increasingly capable Iran is of great concern to Saudi Arabia. Shifting power and status quo evaluations are of extreme salience, without question. Finally, at the dyadic level, North Korea's advancing missile technology is of great

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concern to South Korea. It represents a positive gain in relative power on the part of Pyongyang and increases their ability to upset the dyadic status quo.

I argue that relative power and status quo evaluations do not only matter in context of system or regional hierarchies, but also to dyadic hierarchies. Additionally, dyadic hierarchical concerns are inherent to system and regional hierarchies. While China is rising, threatening the United States' position at the top of the system hierarchy, doubtless the United States is concerned with China's rise for other, non-system related concerns. An example of this is China's ability to use economic statecraft to demand better terms-of-trade. Case-in-point, as I write this China has banned all agricultural imports from the United States as retaliation for a ten percent tariff on all Chinese goods. I would argue that China's increasing bargaining leverage is not only a concern to the United States because it means that China may replace the United States as the world's top superpower, but because it means that the United States will get less from its bargaining with China in the future, which is a purely dyadic concern.

The same logic can be applied to regional hierarchies. Iran's rise is not only of concern to Saudi Arabia because of the latter's prospect of losing its title of most powerful country in the region. This surely is a genuine concern; however, of equal concern is the prospect that Iran's rise will make it more difficult for Saudi Arabia to defend against it in a future military conflict. The status quo, in this case, is Saudi Arabia's ability to thwart an offensive by Iran or carry out a successful offensive against them. This scenario is related to relative positions of power within a dyadic hierarchy. It does not necessarily have anything to do with Saudi Arabia's fear of losing the spot as top dog in the region, so-to-speak.

So, what are the aforementioned conditions for applying power transition theory to the dyadic level of analysis? I argue that for power transition theory to be relevant to pairs of countries, relative power and status quo evaluations must be salient within those state dyads. I define relevant

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dyads, generally, as those that consist of at least on major power or contiguous states. I believe that

in these conditions the relative gains in national power and status quo evaluations become salient.

Thus, these are the conditions in which power transition theory can be applied to the dyadic level.

As mentioned above, relevant dyads are defined as those that consist of at least one major-

power or those that include contiguous states. This is the generally accepted definition of politically

relevant dyads. These political relevant dyads are the most prone to experience armed conflict. Thus,

considering the insights of foreign policy substitution, they should also be the most likely to engage

in other foreign policies. While these are the general scope conditions, further alteration must be

made depending on the foreign policy response under consideration.

The scope conditions for the analyses of economic sanctions and bilateral trade incorporate

the additional requirement that the dyad must also engage in some level of bilateral trade, greater

than zero. The reasoning behind this added condition is that only states that trade can use the

imposition or easing of sanctions, or less favorable or improved trade relations, to influence each

other's behavior. Foreign aid builds on the general scope conditions by adding the stipulation that at

least one state in the dyad must have acted as an aid donor to any other state in the past. The logic

here is that a state that possessed the resources to use foreign aid as a tool of foreign policy in the

past will most likely have the resources to do so in the future.

Do these scope conditions make sense? Are they realistic? I argue in the affirmative. The

valid criticism has been raised that power transition theory does not apply to all state dyads. I agree

with this criticism and have adjusted the scope conditions, accordingly. In addition, a specific

concern has been raised with regards to power transition theory's applicability to dyads consisting of

the major powers and much weaker or distant states, neither which seem to pose a threat and

conflict seems unlikely. For instance, is power transition theory applicable to the United States and

Burkina Faso? Admittedly, Burkina Faso (or any other relatively weak and distant state) does not

pose a direct threat to the security of the United States. It is relatively weak and far away. Both facts would remain even if the small west African state is highly dissatisfied and experiences a rapid increase in relative power with the United States; a rapid increase, in favor of Burkina Faso, would be miniscule and inconsequential. That point aside, I believe that this criticism overlooks the indirect threat that Burkina Faso's rapid increase in relative power could pose to the United States. The United States, or any other major power, will be concerned with a rapid increase in relative power, by a dissatisfied state, even when that state does not pose a direct threat to their security. Why? Because the dissatisfied state's rapid shift in power can threaten allies of the United States, as well as regional stability. It is most likely the case that if a dissatisfied state is increasing in relative power with the United States, or any other major power for that matter, it is also increasing in relative power with other states in the international system and with states in its own geographic region. This is the case for any rapidly growing state, regardless of how powerful its dyadic counterpart is. In the hypothetical scenario of Burkina Faso and the United States, the former's rapid increase in power heightens the probability that it will come into conflict with U.S. allies or with its own regional neighbors. Therefore, alliance commitments and the desire for regional stability, can incentivize the United States to enact policies that counter Burkina Faso's rapid growth and discourage aggressive demands and behavior, even when the revisionist's increase in relative power does not pose a direct threat to the security of the United States.

Implication of scope conditions.

These scope conditions have important implications for foreign policy. The composition of the state dyad in question will necessarily affect both the policies that are available and the policies that states choose to enact. The scope conditions lead to the following expectations. First, because major-powers have greater resources to fund a greater variety of foreign policies, as well as to fund more costly policy options, major-power dyads, consisting of two major powers, are expected to be

the most active in their use of foreign policy and will be the most likely to engage in its costlier manifestations, on average. Second, mixed-dyads, consisting of one major and one minor power, will experience less variation in their use of different foreign policies and will use less costly options than major-power dyads, on average. Third, minor-power dyads, consisting of two minor powers, will have the least amount of variation in their foreign policy responses and will use less costly options than either major-power or mixed-dyads, on average. In context of all three dyadic configurations, it is the expectation that contiguity increases the probability of all types of foreign policy.[27]

Foreign Policy Carrots and Sticks

As has already been alluded to above, states use foreign policy to either coerce or entice other states into altering their behavior. In other words, most foreign policy tools, if not all, can be used as both stick and a carrot. It is my general expectation that the use of a particular foreign policy as a tool of enticement is less costly, on average, than the cost to use the same policy as a tool of coercion. For example, it is my assumption that the easing of sanctions is less costly than their imposition or intensification, and that removing restrictions to bilateral trade is less costly than increasing restrictions. Perhaps, however, foreign aid is an exception to this very general rule, as the cost to provide foreign aid (inducement) is costlier than its redaction. Going back to Clark, Nordstrom, and Reed's (2008) finding that states with more resources can more readily afford the use of more costly forms of foreign policy, than states with fewer resources, it is logical to expect, then, that major-power dyads are more likely to engage in coercive foreign policies than are mixed- or contiguous, minor-power dyads. This is because major-powers have larger budgets with which they can more easily fund coercive policy responses. In summary, major-power dyads will use a greater variety of policies, use more expensive policies, and are more likely to use coercive foreign

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[27] In the empirical chapters, the aforementioned and established scope conditions are applied as sample restrictions. This means that each analysis is restricted to dyads that either consist of at least one major power or to those that are contiguous. Because of the former restriction, I do not control for dyad-type in the empirical analyses.

policies, than mixed or minor-power dyads, on average. That said, in conditions of shifting power, status quo dissatisfaction, and power parity, it is my assumption that states use economic sanctions and bilateral trade relations coercively more often than they do as inducements.

The Nested Bargaining Model

I now delineate the mechanisms that drive foreign policy decisions, in response to demands to alter or to maintain the status quo distribution of benefits. To do so, I turn to the logic of bargaining theory. Borrowing the insights of Fearon (1995), I argue that the bargaining model of war can be modified to incorporate foreign policies that fall short of armed conflict. In this modified, nested bargaining model, the issue (stimuli) being bargained over is the status quo distribution of benefits. Whereas, Fearon's model includes the bargaining range of war, in my model each foreign policy option possesses its own distinct bargaining range, based on the cost that it imposes on the sender and target when used as an outside option to a negotiated settlement. Just as each state assigns a value to war, I argue that each also assigns a value to the other foreign policy options available to them.

It is helpful to think of this modified bargaining model as a continuum, augmented by multiple bargaining ranges, with a bargaining range for each available foreign policy existing on the same continuum. Because the use of most foreign policies imposes some cost on the originator and the recipient state, settlements exist to which both states prefer to their use, whether economic or military in nature. [28] This area of mutually agreeable settlements constitutes the respective bargaining range for each policy.[29] It is important to point out that the cost to enact a certain foreign policy tool

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[28] In context of economic sanctions, there is evidence that the cost to the sender is conditional on regime type (Lektzian and Sprecher, 2007). They argue that democratic leaders tie their hands by making public statements, condemning the actions of other states, but are pressured by domestic audiences to keep the sanctions they impose on those states costless to themselves. The implication is that democracies will be more likely to sanction than nondemocratic states, but their sanctions will impose little or no cost on themselves. I would argue that all cases of sanctions exact some cost on both sender and recipient, even though these costs may be very low for the former.

[29] This logic is adopted from, and is an adaptation of, Fearon's (1995) bargaining model of war.

is not constant across states. For example, it may be more costly for a democratic state to enact sanctions than an autocratic state. While the absolute cost to use a particular policy varies from state to state, it is my assumption that the cost to enact a certain policy, relative to the cost of other policies, remains constant on average. For example, on average, economic sanctions are a less costly policy option than armed conflict.

In addition, these distinct bargaining ranges determine whether one or many policies are used in lieu of a negotiated settlement. In other words, they determine whether policies are used as substitutions or compliments. For example, when a state demands too much or gives too little, in which the cost of their demand, or insufficient concession, exceeds its dyadic counterpart's cost to initiate armed conflict, the latter state has the inventive to do so. If these same costs exceed the cost to impose economic sanctions, provide foreign aid, or implement restrictions on bilateral trade, the incentive to do so is present. Additionally, if cost of the demand exceeds the cost to enact multiple foreign policies, the incentive to enact a portfolio of policies is present. This logic can explain why war is often accompanied by other foreign policies.[30] The same is logic applies to the use of all other foreign policy tools that are available to a state at any particular time.

It is clearly the case that all states do not have the ability to enact all forms of coercive foreign policy. While the tools available varies from state to state, the decision-making process remains constant. For example, if a state does not have the capability to sanction, sanctioning simply never enters the decision-making calculus of that particular state. In that case, the state weighs the costs of using the foreign policy tools that it does have available; however, the decision-making process is not altered. Concerning more powerful states, they will have more policy tools at their disposal than less powerful states. This means that their foreign policy calculations will be more

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[30] Clark and Reed (2005) also argue that states do not only substitute one policy for another but often enact multiple foreign policies simultaneously. Their dependent variables and empirical model are constructed specifically to allow for this possibility.

complex, simply due to their having more policy responses to consider. While a powerful state like the United States will consider the use of sanctions, their use will never come into the calculations of many less powerful states. Speaking analogously, if a burglar breaks into your home and you own a baseball bat and a crowbar, but no gun, your decision will be between using the bat, the crowbar (or maybe both if you're talented) or doing nothing. Whether or not you will use a gun is not relevant because you simply do not own one. However, you still have to make a decision concerning your other available responses. This decision process itself is the same regardless of the options you have available to you. The tools vary, not the decision-making process.

Power-to-Benefit Disparities and Bargaining Failure

Why does shifting power, among adversaries, incentivize them to engage in either coercive or inducive foreign policy? I argue that the answer to this question lies in relative power-to-benefit disparities, as laid out by the bargaining theory of war. This is true for both economic sanctions, foreign aid, and bilateral trade relations. Again, I turn to foreign policy substitution and the bargaining theory of war to provide the theoretical foundation and mechanisms for this argument, respectively.

The bargaining theory of war argues that distribution of power roughly determines how benefits are expected to be distributed among states in the international system. Thus, relatively more powerful states demand a relatively greater share of these benefits, while relatively less powerful states demand a relatively smaller share than their more powerful counterparts. When a state's share in the distribution of power is incongruent with its share of benefits, the benefit-deprived state has the incentive to demand an alteration to the distribution of benefits that is commensurate with its current position of relative power.[31] This is in line with the arguments of

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[31] Werner (1999) sheds additional light on this expectation. She explains that even though not all power-to-benefit disparities of this type lead to the threat of violence, ". . . such attempts do clearly provide the occasion for a dispute . . . since leaders may frequently resort to the threat or the use of force to back up their claim to a larger share of the

Morgan and Palmer (2006) who posit that an increase in national capabilities is associated with greater capacity and incentive to seek alterations to the status quo (29). When a shift in relative power is not accompanied by a commensurate shift in the distribution of benefits, one or many foreign policy responses become more likely. This can be caused by the status quo state's refusal to alter the status quo (giving too little) or by the growing challenger's costly demand to alter it (asking too much). Thus, the probability of that states will use foreign policy, either coercively or as a positive inducement, is higher when a dissatisfied state experiences a rapid increase in relative power.

Status Quo Satisfaction

I argue that the use of foreign policy to both coerce and entice is less likely to be observed between satisfied states, even when the weaker of the two experiences a rapid increase in relative power. This is based on the arguments of power transition theory. It is assumed that two states with similar foreign policy preferences are more satisfied with the dyadic status quo, while those with disparate foreign policy preferences are less satisfied. I espouse the argument that political institutional similarity approximately equates to greater similarity in foreign policy preferences, and that greater similarity in foreign policy preferences reduces the likelihood of interstate conflict. The key underlying argument is that domestic political institutions largely determine the foreign policy preferences of states. Theoretically, this conceptualization of status quo evaluations is the best fit, even over other more commonly used conceptualizations.[32]

The argument is based in the preferences explanation for the democratic peace, which argues that states of similar regime type have similar preferences and are therefore more satisfied with the

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available benefits . . . " (716). Importantly, Werner also explains that when a shift in relative power occurs, it is likely that the distribution of benefits does not automatically adjust in-kind. This is because a shift in relative power can take place within the confines of a single state but a revision to the distribution of benefits requires that two states come to a negotiated settlement concerning the new allocation of the benefits in question. Werner names a new division of territory or revised terms of trade between two states as examples of the types of benefits that are distributed among states in the international system (717).

[32] I address these other measures, and why I do not use them, in the chapter on economic sanctions.

status quo, while those with dissimilar regime types have disparate preferences and are more dissatisfied. In turn, greater satisfaction provides states with less incentive to engage in conflict. There is evidence to support that this argument is not only true of democratic states but any pair of states that are similar in regime type (Peceny et al. 2002; Souva 2003; Werner 2000).

Souva (2004) explains that institutional similarity reduces the probability of dyadic conflict via three avenues: ideological similarity, reduction of in-group out-group conflict, and by reducing the benefits of conquest (264-266). The underlying claim of each of these avenues is, respectively, that states similar in political and economic ideology have less issues to come into conflict over. Next, similar states are less likely to see each other as members of the out-group, reducing the likelihood that they will come into conflict. In-group members are viewed as less of a threat than members of an out-group. Finally, when two state's foreign policy preferences are similar, they have more incentive to cooperate and less incentive to engage in conflictual behavior.

I argue that, for either the status quo or revisionist states, the costliness of their demands is conditional on the degree of dyadic status quo satisfaction existing between them. Shifts in relative power, and the respective demand from either the status quo or revisionist state, are costlier when dyadic status quo dissatisfaction is high. On the other hand, when satisfaction is high it is less likely that a state, increasing in relative power, will make a demand that is costlier to the status quo power than the latter's own cost to enact one or multiple foreign policies. Relatedly, it will be less likely that the status quo state will make a demand to maintain the status quo distribution of benefits that is unacceptable to the revisionist state. There are a few reasons for this.

A growing but satisfied state will be less likely to be in a situation of power-benefit disparity and, thus, less likely to demand too much in the way of revising the status quo. There are two reasons for this. First, a satisfied state will already be enjoying a greater share of benefits due to the similarity between its own preferences and the foreign policy preferences of the status quo power,

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and their greater propensity to cooperate to achieve a pareto-optimal division of benefits between them.[33] Additionally, if a demand is made to adjust the status quo, the adjustment will be less likely to meet resistance from the status quo power, as cooperation rather than coercion, will be the norm between them. For example, if Canada experiences a rapid shift in relative power with the United Kingdom it is highly unlikely that the former will make a demand that triggers the latter to engage in military, economic, or any other form of coercion. First, it is more likely that the two countries will, through cooperation and coordination, work diplomatically to facilitate any demand that Canada issues for a greater share in the distribution of benefits. Secondly, because of the symbiotic relationship that already exists between the two allies, because of similar preferences, it is unlikely that Canada would have the need to demand a revision to the status quo large enough to warrant a coercive response by the United Kingdom. Because of its similarity in preferences with the United Kingdom, and resulting cooperative diplomatic relations, Canada enjoys, and will continue to enjoy, a share in the dyadic distribution of benefits that is commensurate with its position of relative power with the United Kingdom.

With regards to the outcomes of interests to this dissertation, I expect greater status quo dissatisfaction to be associated with in increased likelihood that sanctions, foreign aid, and bilateral will be used as tools of foreign policy, either to coerce or to entice. The probability that sanctions will be used as a tool foreign policy increases when status quo dissatisfaction is high, as it is more likely that a growing revisionist or the status quo state will demand too much or give too little when bargaining over the status quo distribution of benefits. Greater status quo dissatisfaction increases the probability that foreign aid and bilateral trade will be used as tools of foreign policy for the same

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[33] Tammen, Kugler, and Lemke (2017) support this argument when they state ". . . when nations share the same evaluations of the status quo, they willingly coordinate efforts and cooperate to achieve joint, Pareto optimal goals. The level of cooperation among nations does vary in direct proportion to the proximity to the status quo among competing parties" (5).

reason; a dissatisfied revisionist state is more likely to make a demand to which the status quo state is not willing to acquiesce, and vice-versa. As a result, the status quo state has the incentive to use foreign aid or bilateral trade to coerce, or entice, a dissatisfied revisionist into abandoning or tempering its demand to alter the status quo. In the case of foreign aid, greater dependence on the aid of the status quo state foreign increases the cost associated with its loss. Therefore, greater dependence on this aid makes it less likely that a revisionist state will make a demand to alter the status quo that is unacceptable to the donor.[34]

Power Parity

As with shifting relative power and status quo satisfaction, I argue that the static distribution of power effects the foreign policy decisions of states. Power parity increases the cost to engage in military and economic foreign policy and decreases the probability that either type of policy will be successful. In context of armed conflict, power parity introduces greater uncertainty concerning which side will be victorious. Thus, uncertainty increases the likelihood that either side will demand too much or give too little, leading to armed conflict. There is ample empirical evidence that power parity increases the likelihood of war (Fearon 1995; Lemke 1996, 2002; Organski and Kugler 1980). In context of economic sanctions, power parity also decreases the likelihood of success, while simultaneously increasing the cost associated with their imposition. In contrast to armed conflict, I expect a countervailing force to be at work in dyads that are near parity, decreasing the likelihood that they will engage in sanctions.[35] This expectation is based on the observation that senders seek to impose sanctions that are costless to themselves.[36] Evidence of this argument is provided by the

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[34] A more thorough explication of the theory for each outcome of interest, as well as a more specific literature review, is provided in each empirical chapter.

[35] This same logic implies that power parity should be associated with shorter sanctions episodes.

[36] See Lektzian and Sprecher (2007).

observation that states usually impose sanctions on less powerful targets (Farmer 2000). The implication is that sanctions are most likely to be observed in mixed dyads.

It is my expectation that power parity exerts negative pressure on bilateral trade, in dyads in which a dissatisfied state experiences a rapid increase in relative power. Because states are concerned with the relative gains of other states, a rapid increase in relative power by an adversarial state can lead to a decline in bilateral trade relations. This can either be the result of the status quo state's unacceptable demand to maintain, or the revisionist state's unacceptable demand to alter, the status quo distribution of benefits. When two states are closer to power parity, the concern over relative gains is exacerbated, increasing to probability that the demand of the growing revisionist state will lead to worsening trade relations and, therefore, to reductions in bilateral trade. The implication is that reductions in bilateral trade, due to shifting power and status quo dissatisfaction, are likely most pronounced in major-power dyads, in which the states are closer to power parity.

Although studies of the determinants of foreign aid are silent concerning the effect of relative power on its use as a foreign policy tool, it is my expectation that states that are nearly equivalent in power are less likely to provide each other with foreign aid. The ability to use foreign aid to coerce or entice is contingent on the donor's ability to make the recipient dependent on its provision to the extent that its disruption is costly enough to deter the latter from making costly demands to alter the status quo. Fear of losing aid disincentives the recipient from issuing demands large enough to incentivize the donor to reconsider the utility of continuing its provision. Additionally, it is more likely that major powers will have the resources to provide foreign aid than

their minor power counterparts. Taken together, these two arguments imply that the use of foreign aid, as stick or carrot, is most likely to be observed in mixed dyads.

Aggregated Policy Costs

Importantly, there are costs associated with the use of any foreign policy, that apply to both the originator and recipient state. These costs come in the form of political repercussions, such as domestic or international audience costs, or economic costs, such as forfeited revenue from trade, to name a few. As mentioned earlier, just as the costs of war are weighed against the cost of an adversary's demand, so also are the costs of the other foreign policies available to a particular state. In this light, the use of any type of foreign policy may present an inefficiency puzzle akin to the inefficiency puzzle of war. This is true when both the sender and recipient are better off coming to an ex-ante agreement.[37] I use the word "may" intentionally, as this may not always be the case when a foreign policy or group of policies are used to entice, rather than coerce—for example, easing sanctions may be costly to the sender but will most likely be beneficial to the target. The same is true of trade restrictions. Again, foreign aid is different in this respect, but the logic is the same. Providing aid may be costly to the donor but not necessary for the recipient state. When foreign policy is used in an inducive context, therefore, its use is primarily inefficient for the sender, not the target. That said, it could be argued that inducements are costly to the recipient state because of the strings to which they come attached. In this context, the target state gives up freedom over its domestic or foreign policy in exchange for these incentives. If this is the case, inducements can be inefficient and both states would be better off coming to a negotiated settlement. All things

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[37] See Fearon (1995).

considered, however, it is my expectation that all foreign policies impose some cost on both the sender and the recipient state.

Cost aggregation.

Important to the discussion of costs, is how they accrue for both the sender and recipient state. It is logical to argue that these costs aggregate across time and space. These aggregated costs are equal to the grand total of all sunk and current costs that are incurred by a state in a single bargaining episode. For the purposes of this dissertation, a bargaining episode is defined as a duration of time in which two states bargain over the same issue.[38] With regards to special accrual, these costs are incurred by both the originator and recipient states when one or more coercive policies are used. Therefore, aggregate costs accrue as a result of policies being used independently, or concurrently. By concurrently I mean that more than one foreign policy is used in the same bargaining episode. The implication is that multiple policies may be enacted simultaneously (same period); however, this is not a requirement to be categorized as concurrent. For example, it is possible for the use of provision of foreign aid as a tool of foreign policy to precede the use economic sanctions, or vice versa. The key is that both policies are used within the same bargaining episode. I define a bargaining period as the time between instances of bargaining failure within the same bargaining episode. There may be multiple bargaining periods within a single episode.

In addition to spatial aggregation, costs accumulate over time. This is true for both sender and target states. It is possible for costs to aggregate solely via the use of one foreign policy, because of duration; the longer a policy is in place, the larger this cost becomes. Theoretically, this can lead to a point at which the cost of a target state's demand no longer exceeds the aggregate cost to

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[38] In context of shifting power, states are bargaining over the distribution of benefits, in relation to the distribution of power; however, the precise nature of these benefits is inconsequential for the purposes of this study.

engage in a particular policy.[39] In this case, the sender no longer has the incentive to continue its use. Combining this argument with the argument of that costs accrue spatially intuitively implies that the costliest bargaining episodes are those that are of an extended duration and incorporate the concurrent use of multiple coercive foreign policy tools.

There is precedent for this logic in existing research—for example, Miyagawa (1992) argues that economic sanctions can hardened target leaders over time. Using United States sanctions against Cuba to illustrate this point, Miyagawa explains that, over time, Castro was able to paint the sanctions regime as an attack by wealthy capitalists on the nation as a whole. This, in turn, led to a solidification of national sentiment in support of the communist regime, enabling Castro to take a harder line against the United States (84-85).

An example of costs aggregating both temporally and spatially, is General William Westmorland's strategy of attrition during the Vietnam War. From 1964 to 1967 (temporal costs), Westmoreland increased the number of U.S. troops in Vietnam from sixteen thousand to over five-hundred thousand in combination with an intensified bombing campaign (spatial costs), in hopes of beating the Vietcong into submission, only to end in stalemate. In 1968, the bombing campaign was halted by President Johnson and Westmorland was replaced as commander of the Military Assistance Command in Vietnam (MAVC). The specific costs associated with Westmorland's strategy of attrition came in the form of blood, treasure, and time.

The implication of aggregate costs, as laid out above, is that states' demands are dependent on their assessment of the costs incurred in past bargaining periods and the costs that will be incurred in the current period if they fail to come to a negotiated settlement concerning the distribution of benefits. When a target makes a demand, the sender compares the cost of the

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[39] For example, a war of attrition in which the costs associated with continuing an offensive campaign become too costly to continue.

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potential target's demand with how much has already been spent on the particular issue, to date, and how much will be spent in the current period. Depending on the size of the target's demand, relative to the sender's aggregate costs, the latter will either acquiesce, or respond by engaging one or more foreign policy responses. This same cost assessment determines whether the sender discontinues the use of one or multiple coercive policies. When the demand of the target state becomes less than or equal to the sender's aggregated costs, the sender no longer has the incentive to continue using the policy or policies in question. At this point, the sender is better off acquiescing to the target's demands than continuing to use any foreign policy tool.

Enacting Foreign Policy

Now that the main tenets of the theory have been laid, and the scope conditions set, I review how shifting power, status quo evaluations, and the static distribution of power affect the decision to use foreign policy, in lieu of a negotiated settlement. In conditions of imperfect information, concerning capabilities and resolve, shifting power, status quo dissatisfaction, and power parity can lead states in a dyad to engage in a variation of foreign policies, with the aim of compelling or enticing other their dyadic counterpart into acquiescing to their demands, regarding the status quo distribution of benefits. This can lead either the declining status quo state or the growing revisionist state to use foreign policy to this end. The decision to engage in foreign policy, and which policy or policies are to engage in, is ultimately decided by weighing the cost of the potential target's demand with the sender's own cost to enact each policy or policies. This can lead states to use economic sanctions, bilateral trade, or foreign aid as tools of foreign policy, among others. As the calculations for the status quo and revisionist states are based on different motivations, that is maintaining and altering the status quo, respectively, I will now turn to a deeper explanation concerning each state's calculation and decision to enact a particular foreign policy or portfolio of policies.

The status quo state.

The declining status quo state's precise foreign policy response depends on the size and rapidity of a challenger's shift in power and the associated demand to revise the status quo, their proximity in relative power, and the degree of status quo satisfaction existing in the dyad. Rapid shifts in power, by a growing, dissatisfied challenger, present a greater cost to a declining state than a smaller, more gradual shift by a satisfied state. If the cost of the shift and associated demand are large enough to move beyond the range acceptable to the declining state, it has the incentive to enact foreign policies that pressure and incentivize the revisionist state to reduce or withdraw its demand to alter the distribution of benefits. For the purposes of this dissertation, I argue that this can lead the declining state to use economic sanctions, foreign aid, or bilateral trade to this end.[40]

The revisionist state.

The growing revisionist state has the incentive to enact a particular foreign policy response, or portfolio of responses, when the declining status quo state makes a demand to maintain the status quo distribution of benefits that is greater than the cost for the revisionist to enact a particular policy or group of policies. In other words, this is the case when the revisionist's shift in power causes the declining state's demand to maintain the status quo distribution of benefits to no longer fall into the range of settlements that the latter state prefers to enacting these foreign policy responses. The growing revisionist enacts foreign policies that pressure or entice the status quo state into acquiescing to its demand for a greater share in the distribution of benefits. I argue that the revisionist state can use economic sanctions or bilateral trade to this end. Unlike its more powerful counterpart, however, it is unlikely that the weaker revisionist state will be able to use foreign aid to

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[40] Importantly, it is not being argued that the shift must result in a power transition in which the weaker state surpasses its dominant counterpart. The shift and associated demand to revise the status quo must simply be greater than the cost for the declining state to engage in one or more coercive foreign policies.

as a foreign policy tool, as it seems unlikely that a weaker state will provide a more powerful counterpart with aid. These arguments lead to the following testable hypotheses:

H1: The probability that either the status quo or revisionist state will impose economic sanctions increases when the weaker, dissatisfied state experiences a rapid increase in relative power, but this relationship is conditional on the degree of power parity existent in the dyad.

H2: The probability that the status quo state will provide aid or increase the amount of aid it provides increase when the weaker, dissatisfied state in the dyad, experiences a rapid increase in relative power, but this relationship is conditional on the degree of power parity existent in the dyad.

H3: The probability that the either the status quo or revisionist state will impose trade restrictions increases when the weaker, dissatisfied state in the dyad, experiences a rapid increase in relative power, but this relationship is conditional on the degree of power parity existent in the dyad.

Conclusion

I have argued that the conditions posited by power transition theory to increase the probability of war—namely, rapid increases in relative power, status quo dissatisfaction, and power parity, significantly affect probability that economic sanctions, foreign aid, and bilateral trade will be used as tools of foreign policy. These theoretical expectations are based on foreign policy substitution's insight that similar stimuli can lead states to make different foreign policy decisions at different time and on the bargaining theory of war's argument that disparity between a state's share in the distribution of power and its share in the distribution of benefits increases the probability of armed conflict. When a state increases in relative power, the distribution of benefits is not guaranteed to adjust in kind, incentivizing the growing state to demand that a commensurate adjustment be made. I have argued that this is especially true when the increasing state is dissatisfied with the dyadic status quo. I have argued that when this demand is too large, or is denied by the status quo state, either state may be incentivized to enact foreign policies that are less costly than

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accepting that demand. Importantly, the motive driving the decision to engage in a particular policy or group of policies is to compel or entice the other state into acquiescing to the demand of the sender. I further argued that the particular policy or policies chosen depends on the policies that are available to the state at the time. This is determined largely by the state's resources and its domestic political institutions. In addition, the choice of which available policy or group of policies to enact depends on the sender's cost to engage in that particular policy, or policies, compared to the cost to acquiesce to the target's demand. When the latter outweighs the former, the incentive to engage in coercive foreign policy is present. Taken together, these arguments lay the foundation for the empirical chapters ahead. Each empirical chapter builds on this chapter by going deeper into how the theory applies to each outcome of interest, and by testing the theoretical claims quantitatively.

CHAPTER IV

ECONOMIC SANCTIONS

In this first substantive chapter, I put my theoretical expectations concerning the relationship between relative power and the use of economic sanctions to quantitative analysis. I argue that, in conditions of imperfect information concerning capabilities and resolve, a rapid increase in relative power by a dissatisfied state increases the likelihood of economic sanctions, while dyadic power parity works as a countervailing force, mitigating the probability of their use. Greater divergence between the foreign policy preferences of states determines the degree to which they are satisfied with the status quo distribution of benefits. Because politically dissimilar states often have conflicting foreign policy goals, regimes that are more dissimilar are assumed to be more dissatisfied than those that are politically similar. The positive effect of shifting power on sanctions imposition is a result of either the status quo or revisionist's demand to maintain or revise the status quo distribution of benefits, respectively. The negative effect of power parity stems from the observation that it is costlier to engage in economic sanctions with a state that is nearly equivalent in relative power than with one that is far weaker. Importantly, I assume that these affects are only applicable to dyads that consists of states that are at least 80 percent of power parity.

In line with my theoretical expectations, I find that rapid shifts in relative power have a positive and significant effect on sanctions imposition, and that this relationship is conditional on the level of status quo dissatisfaction and the degree of power parity in a state dyad. Additionally, among these state dyads, those that are closer to power parity are less likely to use sanctions.

The rest of the chapter is laid out as follows. I first present a recap of the theoretical expectations and restate the related sanctions-specific hypothesis. Next, I discuss the research design, followed by the results of the empirical analysis. Finally, the chapter concludes with a discussion concerning the implications of findings. As the literature review chapter includes the relevant scholarly work on economic sanctions, this chapter excludes a literature review to avoid redundancy.

Theory

As the general theory for this study, as well as much of the theory of this chapter, is laid out in detail in the previous chapter, this section offers a brief recap of the theoretical argument and presents the testable hypothesis. In conditions of imperfect information, concerning capabilities and resolve, either the status quo or revisionist state may have the incentive to use economic sanctions as a result of the rapid gain in relative power by the weaker state in the dyad. The status quo state has the incentive to use sanctions as a tool of foreign policy when the cost of the growing revisionist state's increase in relative power and resulting demand to alter the status quo distribution of benefits, is costlier to the status quo state than the cost to impose sanctions. In other words, when the status quo state can get more by imposing sanctions than it can by acquiescing to the revisionist's demands for a greater share of the benefits in question, the incentive to impose sanctions is present. Likewise, the incentive for the revisionist to impose sanctions on the status quo state is present when the latter's demand to maintain the current distribution of benefits is costlier to the revisionist state than imposing sanctions. In other words, when the revisionist can get more by imposing sanctions than it can by acquiescing to the status quo state's demand to maintain the status quo distribution of benefits, the incentive to impose sanctions is present.

I argue that the relationship between shifting relative power and economic sanctions is conditional on two factors. First, the state increasing in relative power is dissatisfied with the status

quo. A state that is satisfied with the status quo, meaning that it shares more foreign policy preferences with the status quo state, will be less likely to suffer from a power-to-benefit disparity than a state that shares little or no preferences with the status quo state. In addition, a satisfied state's relative gains in power will be less of a concern (Lemke and Reed 1996; Peceny et al. 2002; Souva 2003; Werner 2000). The demands of a dissatisfied, growing state to alter the status quo distribution of benefits will likely be larger, on average, than the demands of a growing but satisfied state. This is because dissatisfied states are more likely to be suffering from a power-to-benefit deficit, ex-ante. In addition, the demand of a dissatisfied state to alter the status quo distribution of benefits is costlier to the status quo state than a demand of the same magnitude made by a satisfied state. This is because of the disparity between its preferences and those of the status quo state. As a result, dissatisfied states will be more likely to have their demands for a greater share of benefits rejected, providing them with the incentive to impose economic sanctions. In addition, dissatisfied, growing states will be more likely to make a demand that is costlier to the status quo state then its cost to impose sanctions, providing the latter state with the incentive to impose sanctions.

The second conditional factor is how close the revisionist and the status quo states are in relative power. In line with power transition theory, which argues that interstate conflict is most likely in dyads that are near power parity, it is the expectation of this study that the effects of shifting power, status quo dissatisfaction, and relative power are conditional on how close two states are to power parity. Departing somewhat from the expectations of power transition theory, however, it is my expectation that being closer to power parity is negatively associated with the imposition of economic sanctions. Imposing sanctions on a state that is nearly equivalent in power is more costly than imposing sanctions on a state that is weaker. By increasing the cost to impose sanctions, greater power parity increases the size of the bargaining range, decreasing the probability of economic sanctions imposition by either state in the dyad. This is the case even when the weaker, dissatisfied

state experiences a rapid increase in relative power. This said, it is my expectation that shifting power and status quo dissatisfaction will have the greatest positive effect, and relative power will have the greatest negative effect, on the probability of economic sanctions imposition in dyads that are nearer to power parity. It is important to clarify that power parity plays two rolls in the theory and analysis. First, two states that are closer to parity will be less likely to sanction one another. Second, this will be the case only between states that are already nearer to power parity. This is because it is between near-parity states that shifting power and status quo dissatisfaction become salient. These arguments lead to the following hypothesis:

H1: The probability that either the status quo or revisionist state will use economic sanctions increases when the weaker, dissatisfied state experiences a rapid increase in relative power, but this relationship is conditional on how close the states are in relative power.

Research Design

The data are arranged in a dyad-year format, spanning the years 1980-2000, and is arranged so that the more powerful state in the dyad is state A and the weaker is state B. The dataset is composed of sanctions-relevant dyads. For the purposes of this study, sanctions-relevant dyads are defined as those consisting of states that conduct some level of bilateral trade with each other and consist of at least one major power or contiguous states. The logic behind these scope conditions is twofold. First, states with no trade relations have no logical way to impose sanctions on one another. Second, dyads consisting of a major power, or those containing contiguous states, are more likely to have issues over which to engage in sanctions, in addition to other coercive foreign policies. To capture the effect of power parity I subset the data so that there are two separate datasets. The first consists only of dyads that are near power parity. The threshold used is 80 percent. The second dataset only includes dyads that are less than 80 percent of power parity. Sub-setting the data in this

way allows me to circumvent the need for a trichotomous interaction term of shifting power, status quo dissatisfaction, and power parity.

Data.

The descriptive statistics for variables included in the statistical analysis of sanctions imposition are found in Table 1. The dependent variable, *Sanctions*, is dichotomous and equals one if sanctions were imposed by dyad-year, and zero otherwise. There are sixty-six instances of sanctions imposition in the dataset. The data for this variable comes from Hufbauer, Schott, and Elliott (2008). I use the Hufbauer et al. data because of its widespread use and convenience and ease of replicability. In an earlier draft of this chapter I did use the TIES dataset, but this became unnecessary after reverting to the dichotomous dependent variable. Specifically, I no longer need the sanctions threats variables from the TIES dataset. The dependent variable in the prior draft was a tetrachotomous categorical variable that included both sanctions imposition and sanctions threats.

Table 1. Descriptive Statistics—Economic Sanctions Imposition

VARIABLES	(2) N	(3) mean	(4) sd	(5) min	(6) max
Sanction	14,769	0.004	0.066	0	1
1-Year Shift	14,769	0.0001	0.025	-0.174	0.197
Dissatisfaction	14,769	8.946	7.147	0	20
Relative Power	14,769	3.670	2.403	-5.814	11.96
1-Year Shift*Dissat.	14,769	-0.001	0.270	-1.976	2.879
Ln(trade)	14,769	3.177	7.073	-25.33	12.89
Allies	14,769	0.220	0.415	0	1
US	14,769	0.225	0.418	0	1
Ln(distance)	14,769	6.494	3.097	0	9.377
Major Power Dyad	14,769	0.754	0.431	0	1
Year	14,769	1,991	6.049	1,980	2,000
Sanction Year	14,769	9.594	6.010	0	21
_spline1	14,769	-636.4	651.5	-2,106	0
_spline2	14,769	-931.2	1,058	-3,430	0
_spline3	14,769	-712.3	898.3	-3,016	0

All models include four key independent variables. The first, *1-Year Shift*, measures one-year shifts in relative state power, and ranges in value from -.05 to 0.5. Empirically, *1-Year Shift* ranges from -0.174 to 0.197. Negative values indicate that the weaker state in the dyad became relatively weaker over a one-year period, while positive values indicate that the weaker state increased in relative power.[41] This variable, *1-Year Shift,* is constructed using Carroll and Kenkel's (2016) Dispute Outcome Expectation (DOE) scores. DOE scores are calculated using a machine learning technique that simulates dispute outcomes and then produces the probability that each side will be victorious in a hypothetical dispute, for each dyad-year.

The creators argue that DOE scores have two advantages over ratios constructed using the Correlate of War's Composite Index of National Capabilities (CINC) index (Singer et al. 1973). First, DOE scores are a direct measure of the probable outcomes of armed conflict between two states, whereas CINC scores are only a proxy. Second, DOE scores are more efficient predictors of armed conflict than CINC ratios. A third reason for choosing DOE scores over CINC or GDP is that the latter two experience very little variation over time, while the former experience greater change from year-to-year. As this dissertation is interested in stimuli that affect the probability of coercive foreign policy, I believe DOE scores to be a better fit than relatively stagnate CINC or GDP ratios. They are a better choice for testing the effect of rapid shifting power on the foreign policy decisions of states. Figure 1 illustrates the extent that each measure of relative power varies between the years 1980 and 2000, for the United States and China. It is clearly the case that DOE ratios experience much greater variation than GDP or CINC ratios. Therefore, because I am primarily interested in the effect of rapidly shifting power, DOE scores are the best measure.

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[41] The results for the effects of 5- 10-, 15-, and 20-year shifts in relative power are included in the appendices. Appendix I contains the results for economic sanctions, Appendix II contains the results for bilateral trade, and Appendix III contains the results for foreign aid.

Figure 1. Variations in Different Measures of Relative Power (U.S. and China).
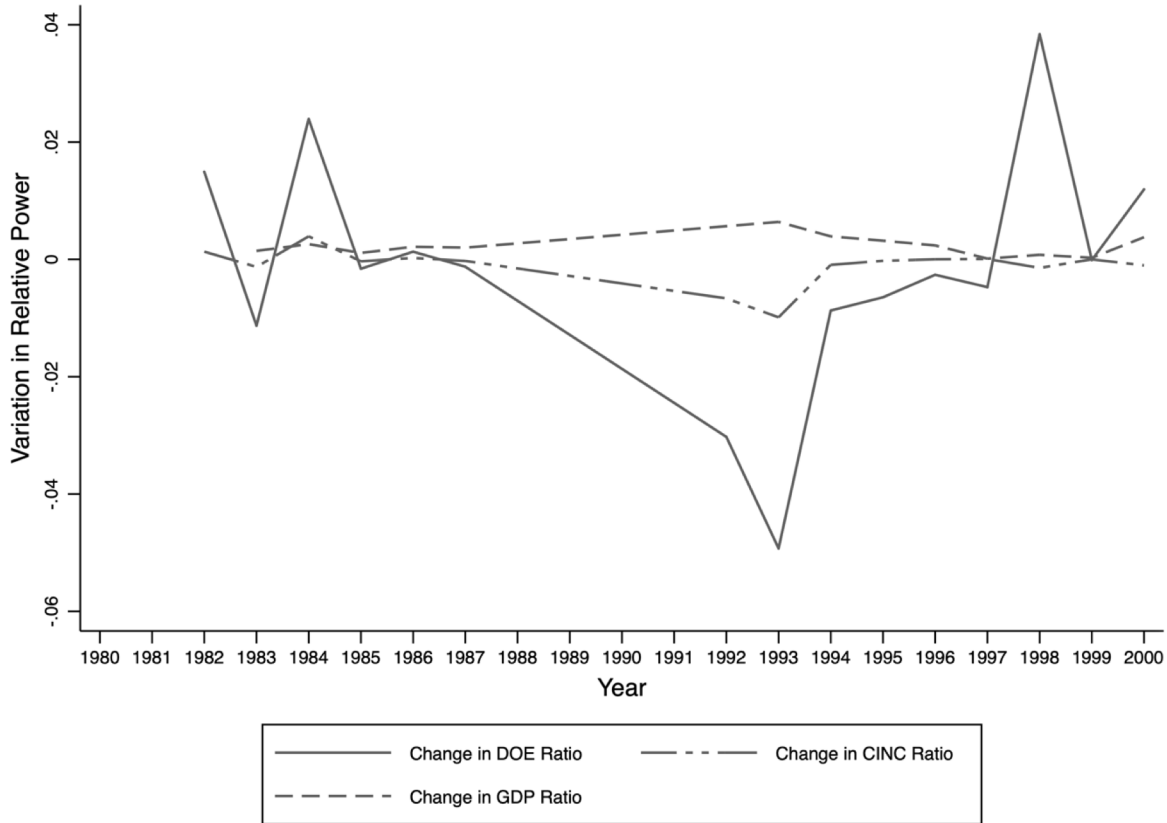
To construct the variable for shifting relative power, I first calculate the ratio of the weaker

state's DOE score over the combined DOE scores for both states for each dyad-year. This is the

same calculation commonly used for CINC ratios and GDP ratios. Next, I created a lagged DOE

ratio variable, capturing a one-year lag in relative state power. Finally, I subtract each lagged DOE

$ratio_{t-1}$ from the DOE ratio at $time_t$. The resulting variable equals the value of a one-year shift in

relative state power, by dyad-year.[42] Shifts in power can be positive or negative. As mentioned above,

if positive, the weaker state became relatively more powerful. This can either mean that the state

increased in power, or that the more powerful state decreased. In either case, the weaker state gained

on its more powerful counterpart over that one-year period of time. If the value of the shift is

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[42] This is the same process used to make the 5-, 10-, 15-*, and 20-Year Shift* variables in the appendix.

negative, the weaker state became relatively less powerful over the course of the designated span of time. This can either mean the weaker state declined in power, or that the more powerful state's power increased. While not theorized, the logic of my argument leads to the expectation that negative shifts in power (weaker state becoming even weaker) will decrease the probability of sanctions.

To illustrate the magnitude of these shifts, a 5th percentile shift is equal to -0.036, while a shift at the 95th percentile equals 0.038. These statistics inform us that even larger shifts in state power are not large in an absolute context. The implication, also supported by the empirical results, is that small changes in relative state power significantly impact the likelihood that sanctions are used as a tool of foreign policy. Importantly, this variable captures a country's shift in power, relative to its dyadic counterpart. This is an essential operationalization choice, as shifting relative power is what is theoretically important. The idea that one state is declining relative to the other provides the incentive to use economic sanctions as a tool of foreign policy.

Because the main effect of interest is the rapid changing of relative state power, I feel that the one-year shift is the best measurement choice, when considered in context of the theory. The rapid growth of an adversary in such a short amount of time is likely to be of greater concern to the declining state than a shift in power that takes place over many years or even decades. It also leaves open the possibility of sudden, unexpected increases in state capabilities, which are certain to be of greater concern to the declining adversary. This will especially the case when the shift in question is an increase in relative war-winning capabilities, which DOE scores directly measure. One seemingly logical reason for this is that the status quo state has less time to adjust to the growth of its dyadic counterpart when the latter experiences a relatively large increase in relative power over a one-year period, than it would over a ten- or twenty-year period. For example, the United States would understandably be more concerned if Iran produced a nuclear weapon within the next year than it

would if it did so in ten. In the prior scenario, the United States the much less time to adjust and respond to Iran's increase in relative power. Additionally, Iran's rapid increase in power would likely be perceived by the United States as a precursor to increasingly aggressive behavior by Iran. This logic retains its validity even when taking nuclear weapons out of the equation. If an adversary rapidly increases the size of its military over a relatively shorter period of time, the increase will be of greater concern to a declining counterpart than if the increase takes place over many years. One admitted shortcoming of taking a one-year change in power is that it does not allow us to see how longer, more gradual shifts in relative power affect the use of economic coercion.[43] Because of the nature DOE scores, I believe they best in the analysis of shorter, more rapid changes in power.

The second key independent variable is a proxy for status quo satisfaction. Similar to Souva (2004) I argue that political institutional similarity approximately equates to greater similarity in foreign policy preferences, and that greater similarity in foreign policy preferences reduces the likelihood of interstate conflict. The key underlying argument is that domestic political institutions largely determine the foreign policy preferences of states. Based on this assumption, the question arises of how to best measure states' domestic political institutions? The answer is unarguably regime-type, and the most accepted and widely used measure of regime-type is the Polity Project's Polity IV scores. Between Polity IV, S-Scores (Signorino and Ritter 1999), and United Nations General Assembly Voting ideal points (Voeten 2013), only Polity IV directly measures and quantifies the domestic political institutional composition of states. Based on the argument and assumptions above, Polity IV scores are clearly the most theoretically consistent measure for this study.

To capture differences in regime-type and, thus, foreign policy preferences, I create a new variable called *Dissatisfaction*. This variable is constructed using the Polity IV data (Marshall et al. 2010). Polity IV measures the degree of openness of each country by year, ranking them on a scale

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[43] I include the regression results for 5-, 10-, 15-, and 20-year shifts in relative power in the appendix.

ranging from -10 to 10, with fully autocratic states equaling -10 and fully democratic state equaling 10. To create *Dissatisfaction*, I calculate the absolute difference between each state's Polity IV score, by dyad-year. The resulting variable ranges from 0 to 20. Dyads with the score closer to 0 are more similar in regime type, while those closer to 20 are the more dissimilar.

The valid question arises of why I do not use more common measures of status quo satisfaction in my analysis. Empirically, the most common measures of status quo satisfaction are Signorino and Ritter's (1999) S scores, which measure alliance portfolio similarity, and UN Affinity scores (Voeten and Merdzanovic 2009), which measure similarity between how states vote in the United Nations General Assembly.[44] My choice to use polity differences as a proxy for status quo satisfaction is theory driven. Before moving on, it is important to reiterate that this study is not the first to do so. Recall that Souva (2004) measures status quo satisfaction in terms of regime type similarity, basing his justification for doing so in the preferences explanation of the democratic peace (Lemke and Reed 1996). The related assumption is that similar states are more satisfied with the dyadic status quo while states of dissimilar regime types are more dissatisfied. This implication is that the most dissatisfied dyads will be those consisting of one highly democratic and one highly autocratic state. Dissatisfaction is assumed to be high in these dyads because of greater disparity in the foreign policy preferences of a highly democratic and a highly autocratic state. In turn, highly dissatisfied states' demands are likely to be costlier than those of satisfied states.[45]

The third key independent variable, *Relative Power*, measures the static distribution of power at time$_t$. This variable is constructed using Composite Index of National Capabilities (CINC) scores

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[44] S-scores and polity differences are not correlated in any substantially significant way. The Pearson correlation coefficient is equal to -0.0892 and a covariance of -.113428. In other words, greater disparity in regime type is negatively related to alliance portfolio similarity. The direction of the relationship makes sense, as states on opposite sides of the political spectrum, in terms of regime-type, will be less likely to ally with one another. Why the correlation is so weak is somewhat puzzling. The most intuitive answer is that states do not primarily base their alliance decisions on domestic political similarities, but on other factors such as security and economic interests or a common adversary.

[45] This is discussed in detail in chapter 3.

from the Correlates of War Project (Singer et al. 1973) and is the ratio of the more powerful state's capabilities and the combined capabilities of the weaker and more powerful state in the dyad, by dyad-year. CINC scores are used to avoid introducing collinearity into the model that may result by using DOE scores to measure shifting power as well as the static distribution of power in the same model. Additionally, CINC scores are the most commonly used measurement of state power so my decision to include them is partially due to my desire to adhere to scientific precedence and convention.

The final key independent variable is an interaction of *1-Year Shift* and *Dissatisfaction*. This variable allows us to test the key theoretical effects of interest and allows me to directly test the theoretical expectation that the effect that rapidly shifting power has on the probability of sanctions imposition is conditional on the degree of status quo satisfaction existent in a dyad.

The models also control for factors that have been shown to affect the probability of economic sanctions imposition. The first control variable *Ln(trade)* measures logged yearly dyadic trade and comes from version four of The Correlates of War's trade dataset (Barbieri, Omar, Keshk 2016). It has been argued that greater trade between two states has a pacifying effect on interstate conflict (Oneal et al. 2003) but may also increase the probability of economic sanctions (Mastanduno 2003; Stein 2003; Cox and Drury 2006; Hull 2015).

Next, the model controls for whether two states are allies, with the expectation that allies should be less likely to use sanctions against each other than non-allies. *Allies* is coded one if the states are allies and zero otherwise. The model also includes a variable that indicates whether a dyad includes the United States, as it is responsible for a majority of the sanctions reported in the data. Of the sixty-six instances of sanctions imposition, the United States is the sender in fifty. *US* is dichotomous, equaling one if the dyad includes the United States and zero if otherwise.

Next, a variable named *Year* is included for the year sanctions were imposed. It has been shown that sanctions use has increased over time (Haas 1998; Cox and Drury 2006). To control for temporal dependence, the model includes a variable named *Sanction Year* that measures the time since the last sanction. It may be that more elapsed time between sanctions episodes either makes sanctions more or less likely. Including a variable that counts the number of years since the last sanctions episode between countries in a dyad allows the model to account for any autocorrelation of this sort. The model also includes three cubic splines to account for duration dependence (Beck 1998).

Methods.

As the dependent variable is binary, I use a rare events logit to test *H1* (King and Zeng, 2001). The rare events logit was developed to remedy small-sample bias in cases where the rarer of two outcomes, in our case sanctions imposition, is rare in relation to the size of the sample. By default, the rare events logit command in Stata calculates robust standard errors. To provide a substantive interpretation of the logistic results, I calculate predictive margins using Stata's margins command.

Because it is expected that shifting power's effect on the probability of sanctions imposition is conditional on status quo evaluations and the degree of power parity in the dyad, I divide the data into two separate datasets before performing the empirical analysis. This allows me to circumvent the need of a trichotomous interaction between *1-Year Shift*, *Dissatisfaction*, and *Relative Power*. The first data subset only includes dyads that are more than or equal to eighty percent of power parity. This is the traditionally accepted threshold used in studies power transition theory and indicates that the states are near power parity (Organski and Kugler 1980). The second data subset only includes dyads that are less than eighty percent of power parity. After sub-setting the data, I then perform the identical empirical analysis on both datasets. If the interaction of shifting power and status quo

dissatisfaction is significant in the subset of near-parity dyads and not in the no-parity subset, this will provide support for the hypothesis that the effect of shifting power on the probability of economic sanctions is conditional on the level of dissatisfaction and the degree of power parity in the dyad.

In order to capture sanctions-relevant dyads, I further restrict the analysis to dyads that either consist of at least one major power or those that are contiguous. Dyads that include at least one major power are more likely to experience conflict than those consisting of two minor powers. Additionally, it has been shown that contiguous states are more likely to engage in conflict than non-contagious states (Starr 1978; Bremer 1992; Diehl 1985). The contiguity variable comes for the Correlates of War Project Direct Contiguity Data, 1816-2016 (v3.2) (Stinnett, Tir, Schafe, Diehl, Gochman 2002). *Contiguous* equals one if two states share a land border or are separated by less than 400 miles of water. Because contiguity increases the probability of armed conflict, it is expected that it is also be positively correlated with the probability of other types of foreign policy responses.

Empirical Results

Table 2 reports the rare events regression results for four models. Model 1 and Model 2 report the regression coefficients for the subset including only dyads that are greater or equal to eighty percent of power parity. The coefficients in Model 3 and Model 4 are for the subset consisting of dyads that are less than eighty percent of power parity. Models 1 and 3 are baseline models with no interactions. It is the expectation that the interaction of shifting power and status quo dissatisfaction will only have a significant effect on the likelihood of economic sanctions in dyads in the near parity subset.

Model 2 indicates that the interaction of *1-Year Shift* and *Dissatisfaction* is significant at the ninety-five percent level. Thus, we can reject the null hypothesis that the interaction has no effect on the likelihood of economic sanctions imposition with ninety-five percent confidence. Comparing the

results in models 2 and 4, we can see that the interaction of *1-Year Shift* and *Dissatisfaction* is significant in Model 2 but not in Model 4, confirming H1. The effect of shifting power on the probability of sanctions imposition is conditional on the level of status quo dissatisfaction and the degree of power parity in the dyad. The basic interpretation of the lower order terms of the interaction in Model 2 is that a one-unit change in *1-Year Shift* leads to an expected increase in the log-odds of economic sanctions of 23.83, when holding *Dissatisfaction* and all other variables at their mean values. It is important, however, to point out that a one-unit shift in relative power is never observed in the data. The smallest shift, in favor of the weaker state in the dyad, is equal to 0.00000173 while the largest shift is equal to .1973733. The latter value equates to approximately a one-fifth unit change in *1-Year Shift*. To arrive at an interpretation of the coefficient for *1-Year Shift* that makes empirical sense, I divided the coefficient by 0.2, giving a value of 4.66. Thus, a one-fifth unit change in *1-Year Shift* leads to an expected increase in the log odds of economic sanctions imposition of 4.66. In terms of probability and percent, this equates to approximately a .55 increase in the probability, or a 55 percent increase in the probability of economic sanctions. Holding all variables at their means, the baseline probability of sanctions is estimated at approximately .0045 or .45 percent. Thus, a one-fifth unit change in *1-Year Shift* increases the probability by .55 or 55 percent, to .007 or .7 percent respectively.

Admittedly, these values are minuscule; however, this is due to the extreme rarity of economic sanctions imposition in the data. For context, we can compare the effect of the United States being in a dyad with the effect of a one-fifth unit change in *1-Year Shift*. In Model 2, the coefficient for US is approximately 2.85. The interpretation being that, if the United States is in a dyad, the log odds of economic sanctions increase by 2.85. In terms of probability and percent, this equates to a .95 increase and a 95 percent increase in sanctions likelihood, respectively. This increases the probability of sanctions from the baseline .0045 to .009, or .9 percent. Subtracting the

probability of sanctions when there is a one-fifth unit change in *1-Year Shift* from the probability of

sanctions when the United States is in a dyad, results in a difference of .002, or .2 percent. The

implication is that dyads that include the United States are only .2 percent more likely to experience

sanctions imposition than dyads that experience a one-fifth unit change in relative power. In either

case the likelihood of sanctions remains miniscule. This fact does not diminish the importance of

the findings. When dealing with minuscule probabilities we need to look at the relative effects of the

variables under consideration, not only their absolute magnitude. No variable in the model will be

impressive if we only consider the latter.

Moving on to the effect of *Dissatisfaction*, when holding *1-Year Shift* at its mean, a one-unit

increase in *Dissatisfaction* leads to an expected increase in the log odds of economic sanctions

imposition of .07. This is the effect expected by H1. Greater dissatisfaction with the status quo

increases the probability of sanctions but is conditional on *1-Year Shift*.

Model 2 also indicates that a one-unit increase in *Relative Power* leads to an expected decrease

in the log odds of economic sanctions imposition of 0.19. The coefficient for bilateral trade is

negative but fails to reach significance at the .05 level. The coefficient for Allies also fails to reach

statistical significance, leaving open the question of whether allies are more or less likely to use

sanctions against each other than non-allies. The logged distance between capital cities fails to reach

significance but is in the expected negative direction. The logic here is that countries that are further

from one another are less likely to come into conflict and also less likely to engage in trade, both

decreasing the likelihood of economic sanctions. The variable *Year* is in the expected positive

direction but fails to reach significance in any model. *Sanction Year* is positive in the near-parity

subset and negative in the preponderance subset but fails to reach significance in any of the four

models. It is interesting that as more years pass since the last sanctions episode the likelihood of

sanctions imposition increases in dyads that are near parity and decreases in those that are further

from parity. This finding validates the general expectation that dyads characterized by near-parity will act differently than those that are further from power equivalence.

Table 2. Rare Events Logistic Regression Results for Sanctions Imposition.

VARIABLES	(1) >=80% parity	(2) >=80% parity	(3) <80% parity	(4) <80% parity
1-Year Shift	8.860	23.83***	12.84	14.55
	(5.576)	(7.294)	(8.086)	(10.58)
Dissatisfaction	0.0634***	0.0712***	-0.0241	-0.0142
	(0.0187)	(0.0193)	(0.0661)	(0.0624)
Relative Power	-0.194***	-0.197***	0.266*	0.260*
	(0.0594)	(0.0576)	(0.139)	(0.137)
1-Year Shift * Dissat.	.	-1.401**	.	-0.258
	.	(0.593)	.	(0.624)
Ln(trade)	-0.0340**	-0.0319*	-0.0478	-0.0479
	(0.0162)	(0.0166)	(0.0374)	(0.0374)
Allies	0.258	0.273	-1.292	-1.294
	(0.332)	(0.322)	(1.255)	(1.264)
Ln(distance)	-0.0300	-0.0239	-0.129	-0.131
	(0.0756)	(0.0731)	(0.117)	(0.118)
US	2.846***	2.830***	3.520**	3.573**
	(0.387)	(0.389)	(1.416)	(1.389)
Year	0.0464*	0.0466*	0.0949	0.0962
	(0.0241)	(0.0245)	(0.0816)	(0.0840)
Sanction Year	0.209	0.233	-0.0498	-0.0473
	(0.270)	(0.274)	(0.693)	(0.684)
_spline1	0.0254	0.0266	0.0240	0.0226
	(0.0158)	(0.0163)	(0.0542)	(0.0537)
_spline2	-0.0243**	-0.0252**	-0.0221	-0.0209
	(0.0116)	(0.0119)	(0.0389)	(0.0387)
_spline3	0.0120***	0.0124***	0.00864	0.00824
	(0.00434)	(0.00440)	(0.0115)	(0.0116)
Constant	-98.72**	-99.30**	-193.6	-196.3
	(47.86)	(48.68)	(161.9)	(166.5)
Observations	14,769	14,769	5,630	5,630

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Substantive effects.

To provide a more intuitive interpretation of the regression results, I report the predictive margins for the regression results reported in Model 2. These are represented graphically in Figure 2

and Figure 3. There are two horizontal lines in both figures. The dashed line is equal to the baseline probability of economic sanctions when all variables are set to their main values. The solid line is equal to the value of the upper bound of the 95 percent confidence interval of a 1st percentile shift in relative power. The former allows us to see how the effect of *1-Year Shift* compares to the baseline prediction. The latter allows us to determine whether the change in *1-Year Shift* is statistically significant. The predictive margins in Figure 2 indicate that, ceteris paribus, shifting power significantly effects the probability of sanctions imposition. Additionally, moving from a 1st percentile shift to a 99th percentile shift is a statistically significant change. Holding status quo dissatisfaction at its mean value, a dyad in which the weaker state experiences a one-year shift in relative power at the 99th percentile is significantly more likely to experience sanctions imposition than a dyad in which the weaker sate experiences a one-year shift in relative power at the 1st percentile. A 99th percentile change in relative power equates to approximately a 2 percent probability of sanctions, while a 1st percentile shift equates to approximately a .09 percent probability. Moving from the 1st to 99th percentile leads to a predicted 2168 percent increase in the probability of sanctions imposition.

Figure 2. Marginal Effect of Changes in *1-Year Shift* on the Probability of Economic Sanctions Imposition holding *Dissatisfaction* at its mean.

*Dashed horizontal line = average marginal effect. Solid horizontal line = upper bound of the 95% confidence interval of 1st percentile of 1-Year Shift.
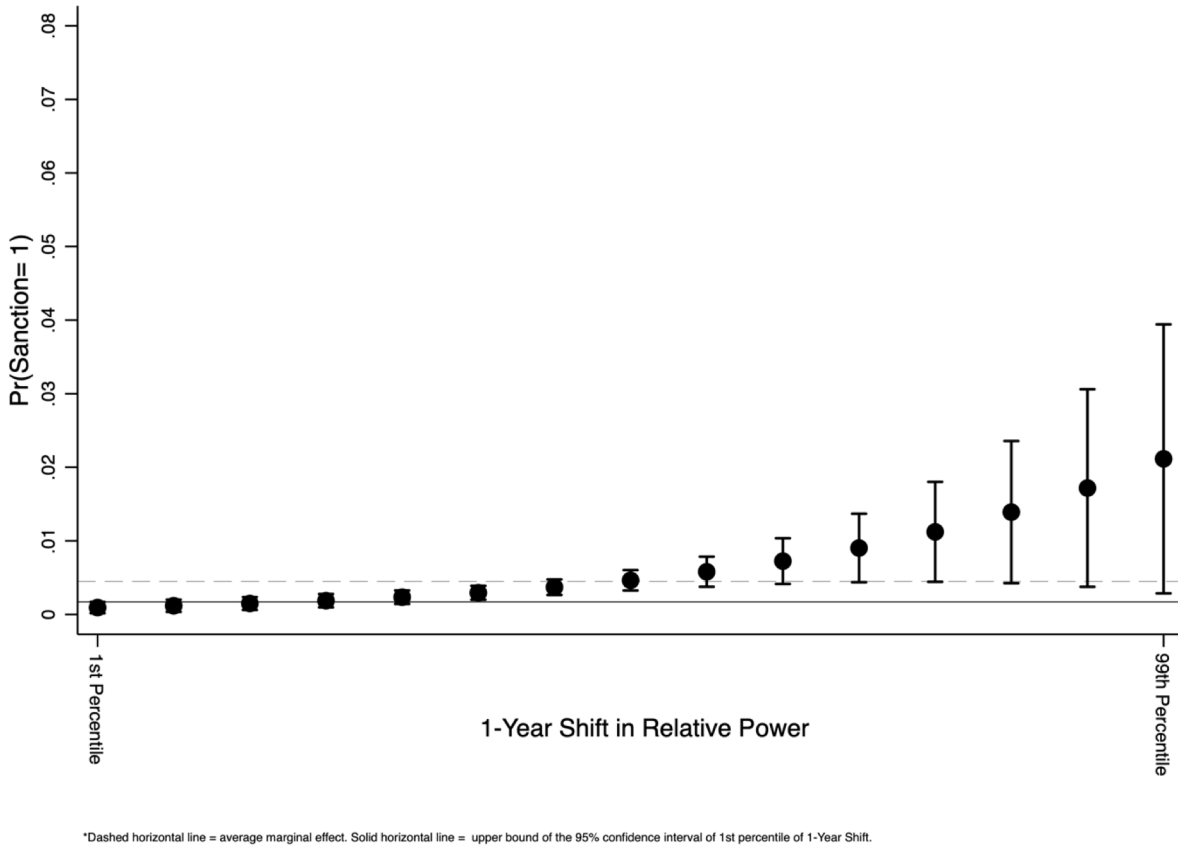
Figure 3 reports the predictive margins of *1-Year Shift* when Dissatisfaction is set at its maximum value of 20. Per my theory, this degree of dissatisfaction with the status quo should be associated with the greatest likelihood of economic sanctions when coupled with rapid shifts in relative power. We can see that the effect of *1-Year Shift* at its 1st and 99th percentile values is significantly different from zero. Unlike Figure 2, the difference between a 1st and 99th percentile shift is not significant at the 95 percent level. However, the difference is significant when changing between the 1st percentile and about the 60th – 95th percentile values of *1-Year Shift*. In the most dissatisfied dyads, a shift in power at the 1st percentile equates to approximately a .16 percent probability of economic sanctions imposition. At the 95th percentile, the probability is roughly equal

to 3 percent. This equals a statistically significant 1775 percent increase in the probability of

sanctions. To provide some context, if the United States is in a dyad, the probability of sanctions

imposition is roughly 2.1 percent, ceteris paribus. Thus, a one-year shift in power at the 95th

percentile value in the most dissatisfied dyads is associated with a higher probability of economic

sanctions imposition (3 percent) than the United States being in a stat dyad.

Figure 3. Marginal Effect of Changes in *1-Year Shift* at Max Value of *Dissatisfaction* on the Probability of Sanctions Imposition.
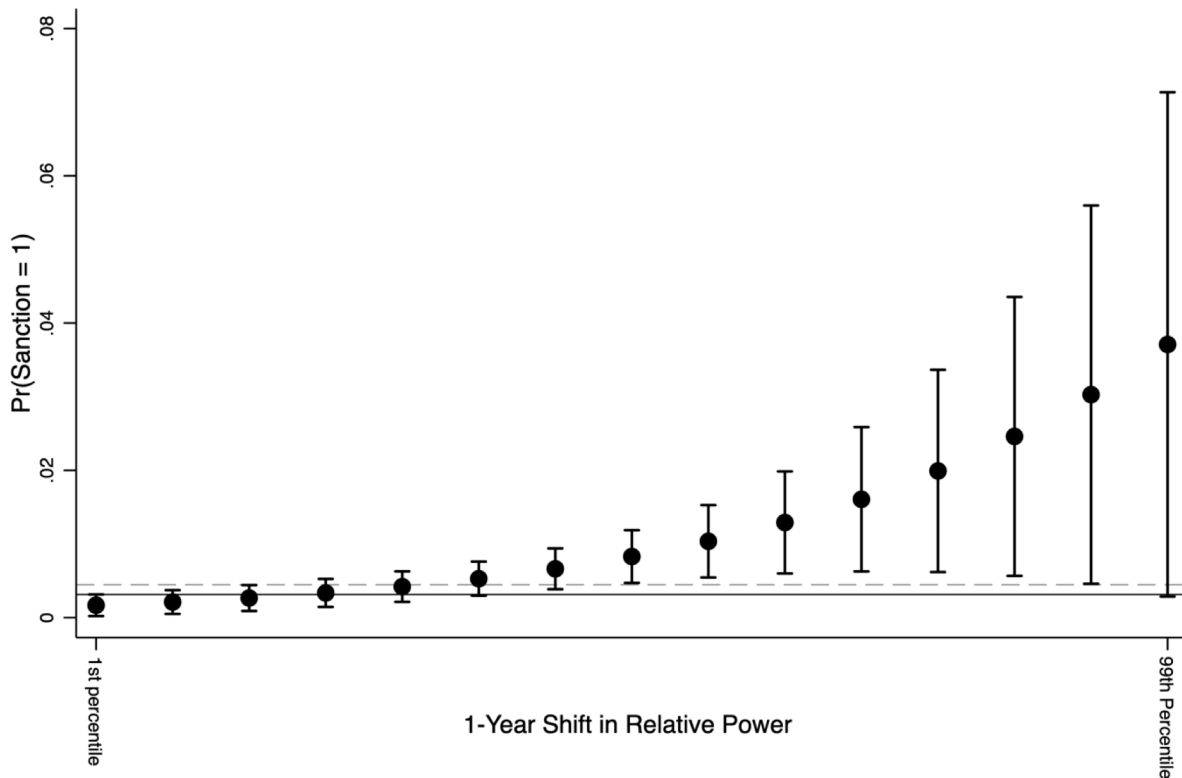
*Dashed horizontal line = average marginal effect (.0044688). Solid horizontal line = upper bound of the 95% confidence interval of 1st percentile of 1-Year Shift.

The empirical results confirm *H1*. Rapid gains in relative power and status quo

dissatisfaction interact to increase the probability of economic sanctions imposition in dyads that are

near power parity. In dyads that are further from power parity (< 80%) none of the key independent

variables exert a significant effect, including the interaction of shifting power and status quo

dissatisfaction. The confirms the expectation that the shifting power and status quo dissatisfaction are salient among states that are close to power parity.

Conclusion

Drawing on the theoretical expectations of power transition theory, the bargaining theory of war, and insights from foreign policy substitution, I have argued that rapid increases in relative state power, and status quo dissatisfaction increases the probability of economic sanctions imposition in state dyads that are near power parity. I have also argued that this relationship is conditional on the degree of power parity existent in the dyad—namely, that power parity decreases the probability of sanctions by increasing the cost to the sender and reducing the certainty of their success. The demand to alter the status quo distribution of benefits and the demand to maintain the status quo distribution of benefits, as a result of changes in the distribution of power, impose costs on the declining and growing state in a dyad, respectively. Sanctions are more likely when these costs exceed the cost for either side to impose sanctions. If either state can get more by imposing sanctions than they can from a negotiated settlement, the incentive to impose sanctions is present. In the empirical analysis, I find support for the argument that the relationship between shifting power and the probability of economic sanctions is dependent o the level of dissatisfaction and the degree of parity in a state dyad.

What do these findings contribute to our understanding of economic sanctions imposition? Of what value are they to the scientific and policy making communities? In the scholarly sense, this is the first study to operationalize shifting power, and the first to analyze its effect on the use economic sanctions. Importantly, this study illustrates that relative power dynamics and status quo evaluations apply, not only to armed conflict, but to foreign policies that fall short of war. The insights of power transition theory and the bargaining theory of war not only apply to the "high politics" of war, but to the use of economic sanctions, specifically. These findings shed light on this

relationship and can be used to more fully explain the use of economic sanctions as a foreign policy tool, like when the United States imposed sanctions on North Korea for their rapidly developing nuclear weapons program. Additionally, the insights of this study can provide us with additional insights and expectations concerning the effect of shifting power on future episodes of economic sanctions. For example, how will China's continued rise in relative power with the United States affect the likelihood of economic sanctions between the two superpowers in the future? This is a point we will now briefly consider.

On the twenty-point scale of status quo satisfaction China and the United States score a fifteen, with twenty being the most dissatisfied. The empirical results indicate that this high level of status quo dissatisfaction is associated with an increased probability of economic sanctions. In addition to the superpowers qualifying as a highly dissatisfied dyad they are also each other's largest trade partner. It is likely that the high level of trade between them presents more opportunities to use economic sanctions to settle disagreements over China's increasing power and spreading influence. China is also growing rapidly, relative to the United States. Thus, the combination of status quo dissatisfaction, greater opportunity to use sanctions, and rapidly shifting power in China's favor, the likelihood of more economic sanctions in the future is quite probable. This will be especially true if China's rise in power continues at its current pace or accelerates.

Perhaps China's shifting power is partially responsible for the recent souring in trade relations between the two superpowers. In March 2018, the United States announced it would impose stiff tariffs on Chinese steel, aluminum, and other goods to persuade Beijing to reconsider its approach to trade with the United States, including the $375 million trade deficit (Lawder and Mason 2018). In tit-for-tat retaliation, China promised to respond proportionately by imposing similar tariffs on goods produce in the United States (Hancock 2018). Escalatory steps by both sides have now escalated to a full-blown trade war. While armed hostilities between China and the United

States would prove prohibitively costly for both states, as both states possess large and capable

nuclear arsenals with a global reach (Kristensen and Norris 2018), the current break down in trade

relations illustrates that both states are more willing to engage in less costly coercive foreign policies,

specifically in the form of economic sanction

CHAPTER V

BILATERAL TRADE

How do shifts in relative power, status quo evaluations, and power parity effect bilateral trade flows between states in the international system? In this chapter I argue that rapid shifts in the distribution of power, status quo dissatisfaction, and power parity work together to significantly affect bilateral trade flows. This expectation is based in two arguments.

The first argument, and the main argument of this chapter, is that a status quo state will seek ways to divert trade from a growing adversary that is near power parity in order to limit the latter's gains from trade. Likewise, the growing adversary that is near power parity with the status quo state, may divert trade from the latter state with the same goal in mind. The key motivation of both states is to prevent the other from increasing in relative power and to disincentivize them from making the resultant demands to alter or maintain the dyadic status quo distribution of benefits. Either state may accomplish these goals via foreign policy tools that fall short of military action, such as economic sanctions, tariffs, or non-tariff barriers to trade, among others. Secondly, the expectation of future economic or political conflict, as well as the occurrence of economic or political conflict, reduce bilateral trade. In this vein, I argue that the rapid increase in relative power by an adversary that is near parity with the status quo state can lead to the expectation of conflict and to an increased likelihood of its realization. The expectation or realization of conflict, in turn, work to reduce bilateral trade. Both arguments should be viewed as complimentary, and lead to the general expectation that a rapid increase in relative power by a dissatisfied state that is nearer to power parity

with the status quo state exerts negative pressure on bilateral trade flows. To test this theory, I analyze how the interaction of shifting power and status quo dissatisfaction affect bilateral trade flows.[46] I find that in the most dissatisfied dyads, that are also near power parity, rapid shifts in relative power significantly decrease bilateral trade flows.

The chapter is laid out as follows. First, a review of the conflict and trade literature is given. The review places my research into the body of works that analyze the effect of conflict on trade flows between exporter and importer states. These studies establish three important points. First, concerns over the gains from trade can affect bilateral trade flows. Second, trade increases the probability of dyadic conflict. Finally, conflict and the expectation of conflict decreases bilateral trade. As this dissertation adopts a foreign policy perspective, it is important to look beyond the effects that armed conflict has on trade, and to look to other coercive foreign policies that may also affect bilateral trade flows. To date, no study has analyzed the effect of shifting power, status quo evaluations, and power parity on trade flows.

Next, theoretical expectations concerning shifting power, status quo evaluations, and power parity are offered, followed by a testable hypothesis concerning their effects on bilateral trade flows. After the theory has been laid out, a description of the data and methods is given, followed by the empirical analysis and implications of findings. The chapter is then concluded.

Literature Review

The literature review is organized into two sections. The first section reviews studies arguing that trade increases the probability of conflict and that conflict directly impacts bilateral trade. The second section reviews studies that extend this logic to foreign policies that fall short of armed conflict, specifically economic sanctions. In the theory section I use the insights of these studies to

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[46] I do not attempt to determine which foreign policy tool is most likely to be employed. I do this in the sanctions and foreign aid chapters. This chapter is solely interested in shedding light on the effect on bilateral trade.

formulate a theory of shifting power and bilateral trade, arguing that conflict and the expectation of it, whether in the form of economic coercion or military action, has a negative effect on bilateral trade.

Armed Conflict and Trade.

The conflict-trade literature falls under the prevue of studies arguing, generally, that political variables significantly affect the flow of bilateral trade. One branch of this literature argues that uneven gains from trade can lead states to reduce trade with adversaries (Dixon and Moon 1993; Gowa and Mansfied 1993; Peterson 2011). Inherent to these studies is the idea that uneven gains from trade lead to uneven gins in state power. This resulting differential in state power is the security externality being referred to. Another branch of the conflict-trade literature argues that trade increases the likelihood of dyadic conflict (Hirschman 1980 [1945]; Keshk et al. 2004, 2010; Kim and Rousseau 2005; Long 2008, 2010; Mansfield et al. 2000; Peterson 2011; Pollins 1989, 2010), while another branch argues that conflict, and the expectation of conflict, exert negative pressure on bilateral trade (Long 2010; Pollins 1989).

Gowa and Mansfield (1993) argue that existing studies of trade that base their arguments in the prisoner's dilemma fail to consider the externalities of trade, what the authors consider, "the most critical aspect of free-trade agreements in the anarchic international system" (408). Additionally, they argue that free-trade can be detrimental to the welfare of the state because gains from trade can be used to increase military power. Free trade leads to greater efficiency, which leads to higher national income. Increased income, in turn, can be used to increase a state's military power. Empirically, the authors find that allies trade more than non-allies, providing support for their arguments concerning security externalities—allies are less concerned with each other's relative gains than they are with the gains of non-allies, who are more likely to be adversaries.

Dixon and Moon (1993) theorize that states with similar political institutions and foreign policy preferences trade more than states with disparate political institutions and foreign policy preferences. This is because conflict is more likely between dissimilar states and the prospect of conflict exerts negative pressure on bilateral trade. Using Polity II data and UN voting data to capture political and foreign policy similarity, respectively, they find support for their arguments— namely, that more similar states trade more than more dissimilar states. They do find, however, that the effect of both variables is conditional on the value of the other. Political similarity is most important when foreign policy similarity is low. Likewise, foreign policy similarity is important when political similarity is low. The implication of their study is that differences in political institutions and foreign policy preferences increase the likelihood of conflict and the treat of conflict exerts negative pressure on bilateral trade.

Peterson (2011) also argues that gains from trade can lead to security externalities because of alterations in the dyadic balance of power. He argues that trade with third-party states has a significant effect on the likelihood of interstate conflict. In line with the bargaining theory of war, Peterson argues that increases in relative power, because of gains of trade with third-parties, incentivize the growing state to demand a greater share in the distribution of dyadic benefits. In addition, gains from trade provide the growing state with the capital needed to finance violent conflict.[47] Peterson further argues that relative gains of the growing state incentivize the declining state to engage in conflict to preserve the status quo. Importantly, Peterson also finds that this relationship is conditional on the degree of political similarity in the dyad, as states are more worried about the relative power gains of states that hold disparate foreign policy preferences than those

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[47] This is in line with Morgan and Palmer's (2006) argument that the foreign policy goals of growing states are more likely to be oriented toward changing the status quo because of an increase in resources with which to fund change-oriented policies.

holding preferences more similar to their own.[48] This is because it is more likely that a politically dissimilar, growing state will make demands to alter the status quo in ways that are unacceptable to the declining state than a growing but similar state. Employing a gravity model of trade, Peterson finds support for his theoretical expectation that third-party trade is related to an increase in the probability of dyadic conflict.

Another branch of the conflict-trade literature focuses on the effect that conflict has on trade. Basing his argument in public choice, which assumes that actors are rational utility maximizers, Pollins (1989) is one of the first to integrate political variables into the classic gravity model of trade. He argues that importers, regardless of the level of analysis (e.g., individuals, organizations, or states), make import decisions based on both economic and political factors. He names three political motivations that affect import decisions. First, it is the desire of the importer to gain leverage over the exporter through the manipulation of trade ties. Examples of this behavior are economic sanctions, embargos, and other forms of economic coercion. Second, similarities and differences in the foreign policies of the importer and exporter states influences import decisions. Importers will trade more with states that hold more similar foreign policy preferences.[49] Finally, the political relationship between the importer and exporter state affects import decisions.[50] Importers will do more business with friendly states than with rivals because doing business with an adversarial state is riskier than doing business with friends. In addition to the risk involved with importing from a rival state, importer's decisions on where to get their imports is also based on their desire to reward states they view as friendly to their own and punish those who are adversarial (741). In sum, the actors who make import decisions, whether individuals, organizations, or governments, consider the foreign policy preferences and the political relationship between their state and the exporting

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[48] see also Wolfers (1962, 31) and Dixon and Moon (1993).
[49] This is a key expectation for the theory offered in this chapter.
[50] This insight is also important for the theory that follows.

state and partially base their import decisions on these political concerns. Pollins tests his theory using a political-augmented gravity model of trade, finding support for the argument that trade is influenced by both economic and political factors.

Another highly relevant study is Long's (2010) analysis of the effects of expected and actual internal and external armed conflict on bilateral trade. Long asks how the expectation of armed conflict affects consumer demand for imports and firms' supply of exports. He argues that both the expectation of future conflict and the occurrence of armed conflict reduce bilateral trade flows. Basing his argument in the rational expectations hypothesis, Long argues that profit-maximizing firms assess the likelihood of future internal or external conflict in the market state according to the information they have at $time_t$, and that these assessments are correct on average. In other words, firms' expectations at $time_{t-1}$ concerning future conflict are distributed around the true value at $time_t$ (88). When future armed conflict seems likely, rational firms will reduce their commercial interaction with the conflict state to avoid declining profitability. The negative effect that expected conflict has on trade is a result of the conflict's deleterious effects on the supply of, and demand for, exported goods. Long argues that armed conflict reduces the supply of goods as well as the consumer demand for those goods. This happens through two mechanisms, one direct and the other indirect. First, armed conflict directly affects trade because it destroys property and leads to a loss of human resources, both of which lower economic growth in the conflict state. The supply of goods by firms in the exporter state and the demand of consumers in the importer state are both fueled by their respective national incomes. National income, in turn, is fueled by economic vitality and economic growth. In the exporting state, decreases in economic growth, as a result of internal or external conflict, reduces the ability of firms to produce goods, decreasing supply for, and increasing the price of, their goods. Likewise, property damage and the loss of human resources, due to armed conflict, lowers national income in the importing state. Just as lower national income in the

exporting state reduces supply, lower national income in the importing state reduces the ability of consumers to purchase imported goods, reducing demand. Therefore, conflict in either an exporting or importing state results in a reduction in bilateral trade. Secondly, Long argues that armed conflict can indirectly affect trade, as a result of economic or political policy change. Both categories of policy change have the potential to reduce firms' ability to profit from exports and consumers' demand for imports. These policy changes can come in the form of economic sanctions, government expropriation or confiscation, or embargos, to name just a few.

Long's theoretical expectations lead him to formulate five testable hypotheses concerning the effect of expected and actual internal and external conflict and bilateral trade. He first hypothesizes that domestic conflict and expected domestic conflict in the exporter state are negatively related to exports. Second, domestic conflict and expected domestic conflict in the importer state are negatively related to exports. Third, expected and actual interstate conflict in the exporter state with any third-party state reduce exports. Fourth, expected and actual interstate conflict in the importer state with any third-party state reduce exports. Finally, expected and actual interstate conflict between the importer and exporter state is negatively associated with exports. Using a conflict-augmented gravity model of trade, Long finds strong support for all five hypotheses. Interestingly, he finds that the expectation of future conflict has a greater impact on bilateral trade than the actual occurrence of conflict. This finding seems to validate the argument that firms' estimates of future conflict are correct, on average, leading to divert trade before conflict ensues. Firms are getting out ex-ante to avoid the profit-reducing effects of war.

Taken together, studies of armed conflict and trade provide evidence in support of the arguments that trade increases the probability of dyadic conflict and that conflict reduces trade. Reductions in trade can be a result of expected losses due to expected or actual conflict. Or, they

may be a result of the strategic actions of rational states, aimed at preventing the relative-gains of their adversaries.

Sanctions and trade.

Because this dissertation is based in the logic of foreign policy substitution, it is important to review studies that analyze the effect that foreign policy responses, short of war, have on bilateral trade flows. This is important as the general theory of this dissertation argues that shifting power, status quo evaluations, and power parity not only influence the probability of armed conflict but many foreign policy responses, including economic sanctions. Following this logic, sanctions and other economic policy tools, can directly and indirectly affect trade.

The findings of extant studies of economic sanctions and trade are mixed, with some reporting a negative relationship when major powers are sanctions senders (Crozet et al. 2016; Evenett 2002; Hafner-Burton et al. 2008; Yang et al. 2009), others finding that this only holds in cases of comprehensive sanctions regimes (Caruso 2003; Yang et al. 2004), and others finding that the relationship between sanctions and trade is conditional on other factors, such as the degree of state ownership of domestic industry (Davis et al. 2014). In opposition to these studies, others report a positive relationship between sanction imposition and bilateral trade flows (Dutt et al. 2010). As a result of the United States being the most prolific sender of economic sanctions, many studies analyzing the effect of sanctions on trade look to how economic sanctions imposed by the United States affect trade.

Yang et al., (2009) adopt this latter approach, asking how unilateral and multilateral sanctions effect third party trade with the European Union, in which the United States is the sole, or one of many senders. The goal of their study is to analyze network and third-country effects of the United States sanctions imposed on the trading partners of the European Union. Third-party effects are synonymous with sanctions busting in which third party states capture lost trade between the sender

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and target state. It is argued that sanctions effectiveness depends on the number of states involved in sending sanctions. With more states on-board, so to speak, the less likely it will be that one or many of them will attempt to sanctions bust. Network effects refer to sanctions' disruption of trade between more than just the target and sender. In the case of Yang et al.'s study, this is disrupted trade between targets of US sanctions and the European Union. Using a gravity model of trade, the authors find support for the network effects argument but none for the third-party effects (1234-1235).

Evenett (2002) analyzes the effect that economic sanctions had on the import of South African goods by eight industrialized states. The sanctions were aimed at coercing the South African government into ending Apartheid. They find that once they control for whether the United States is in a dyad, the sanctions imposed by the other seven industrialized economies had no significant effect on South Africa's exports, with the United States sanctions reducing South Africa's exports by one-third (572). The takeaway, however, is that sanctions reduced bilateral trade.

Morgan and Bapat (2004) argue that economic sanctions punish domestic firms in the sender state. Although sanctions are aimed at the target state, in attempt to coerce them into changing undesirable behavior, sanctions make trade with the target state less profitable for the sender's domestic firms, causing them to reduce or completely stop all economic transactions within the target state (65-66). The authors also point out that sanctions are often purposely aimed at the sender's own domestic firms that have business dealings in the target state. The sender state's interests and their firms' interests often come into conflict, presenting a problem for the sender. The problem being how to disincentives domestic firms from continuing illegal trade with the targeted state. They conclude that the sending government must make violation costly enough to deter their own domestic firms from illegally circumventing sanctions laws. Because of lost profits resulting from lost trade with the target state, the sender's affected firms may try to circumvent sanctions by

moving their operations to a state that allows trade with the target state, decreasing bilateral trade flows between sender and target (66).

While Bapat and Morgan focus on the strategic relationship between sender government and its own firms to explain when sanctions will be successful, Early (2012) looks to external actors to answer the question of why sanctions are often unsuccessful in achieving their stated aim. Early agrees with Bapat and Morgan's (2004) argument that sanctions punish the sender's domestic firms by increasing the cost to do business in the targeted state. In addition, however, Early argues that sanctions disrupt target firms' wider trading networks. As a result of increased cost, and loss of market access, firms in both states may be forced to seek new markets. This is an expensive endeavor, immediately following sanctions, and one that necessarily involves a decrease in bilateral trade between the sender and target.

Taken together, the studies above provide ample evidence that political and economic conflict have the potential to disrupt bilateral trade flows. Many address how political and foreign policy preference similarity affect trade and how trade can alter the distribution of power, leading to negative externalities and reductions in bilateral trade. None of the studies above, however, address the multiplicative effect that shifting power, power parity, and political similarity have on bilateral trade flows. The theory offered below attempts to address this question.

Theory

How do shifting power, status quo evaluations, and power parity effect bilateral trade flows between states in the international system? To answer this question, I present a theory that borrows arguments from the conflict-trade and sanctions-trade literature. Overall, the expectations and findings of both bodies of work lead me to hypothesize a negative relationship between shifting power and bilateral trade flows in state dyads characterized by status quo dissatisfaction and power parity.

Because gains from trade can be used to increase state power and, therefore, its position in relative power, these conditions can increase the probability that states will use bilateral trade as a tool of foreign policy. An increase in relative power, by a dissatisfied state, is likely to lead to a commensurate demand to alter the status quo distribution of benefits; however, both the status quo and revisionist states have the incentive to limit the other's gains from trade in these conditions. The status quo state is incentivized to limit or halt the growth of the revisionist state, while the revisionist is incentivized to increase the rate at which the status quo is declining—thus, speeding up its own increase in relative power. In conditions of uncertainty, the cost of these demands may exceed what either state is willing to accept. When the respective demand of the status quo or revisionist state to maintain or alter the status quo, respectively, outweighs the cost for the other to enact restrictions on bilateral trade, the incentive to do so is present.

In addition to the incentive to limit an adversary's gains from trade, the expectation or realization of economic or political conflict can also lead to declines in bilateral trade. The expectation of conflict can lead to the diversion of trade from the market where conflict is likely to more stable markets elsewhere. In addition, governmental restrictions on trade and armed conflict directly and negatively impact bilateral trade. In this vein, I argue that rapidly shifting power, status quo dissatisfaction, and power parity can lead to the expectation and realization of economic and political conflict, both of which lead to a decrease in bilateral trade.

In sum, shifting power, status quo dissatisfaction, and power parity can lead to reductions in bilateral trade via three avenues. First, the status quo and revisionist states may place restrictions on bilateral trade to limit each other's gains from trade. The incentive to do so is present when the cost to restrict trade is less than acquiescing to the other's demand to maintain or alter the status quo, respectively. Second, shifting power, status quo dissatisfaction, and power parity can lead to the expectation of future economic or political conflict, leading states to divert trade to safer markets.

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Finally, the realization of economic or political conflict can directly impact bilateral trade. These arguments lead to the following testable hypothesis:

H1: Bilateral trade will decline when a dissatisfied state experiences a rapid shift in relative power in dyads that are near power parity.

Methods

The analysis relies on a fixed-effects, augmented gravity model of trade with robust standard errors, clustered by dyad. The gravity model is based on the Newtonian law of gravity, which states that objects of greater mass and that are nearer in proximity exert a greater gravitational pull on the objects around them. In context of states, this translates to mean that larger states that are closer in proximity engage in more bilateral trade while those that are further away engage in less. In this regard, larger GDP in both the exporting and importing state proxies for greater supply and greater demand, respectively. Greater supply and demand increase trade while greater distance between trade partners decreases bilateral trade.

The gravity model of trade came into common usage in the 1960s when Tinbergen (1962), Poyhonen (1963), and Linnemann (1966) used the gravity model to analyze international trade flows. Since that time, the model has lasted the test of time as a result of its accurate predictions of bilateral trade flows (Baier, Bergstrand, and Fung 2014; Baker, Kabir, Salim and Al-Mawlai 2017). Validation for the argument that trade is largely a function of the size of trade partners and distance between them is illustrated by the gravity model's ability to explain a large amount of the variation in trade flows, as illustrated empirically by a large R-squared coefficient.

There are possible drawbacks to using the gravity model. One possible limitation to using the basic gravity model with longitudinal data is the high likelihood of omitted variable bias (Baltagi, Egger, and Pfaffermayr 2003). To counter this possibility, I calculate a fixed effects OLS regression model using the "xtreg" and "fe" commands in Stata. This allows the model to control for

unobserved time-invariant factors that may otherwise confound the empirical results. In addition to the possibility of omitted variable bias, the use of OLS may introduce problems of model misspecification. For example, Silverstovs, and Schumacher (2006) find evidence that Poisson Quasi Maximum Likelihood (PQML) estimation provides a more accurate specification of the gravity model than OLS. This is partially a result of the latter estimation technique's problematic handling of observations in which trade-flows are equal to zero. However, despite any possible drawbacks, the gravity model of trade, analyzed with fixed effects OLS regression, remains the preferred method for the analysis of bilateral trade flows. I follow this convention.

In addition to the augmented gravity model, marginal effects are calculated using Stata's margins command to provide greater insight into the validity and implications of the regression results, specifically the interaction of shifting power and status quo dissatisfaction. Margins calculates ninety-five percent confidence intervals which allow for the determination of whether changes in and across values of the key independent variables are statistically significant.

As in the sanction's analysis, the data is divided into two different subsets, based on the degree of parity in each dyad. The first subset includes only dyads that are greater than or equal to 80 percent of power parity. The second subset includes only dyads that are less than 80 percent of parity. Sub-setting the data in this manner allows us to test the hypothesized conditional effect of shifting power, status quo dissatisfaction, and power parity on bilateral trade without the need of a trichotomous interaction term. The identical analysis is then performed on each subset and reported in the regression table. If the interaction of shifting power and status quo dissatisfaction is significant in the subset of near-parity dyads and not in the no-parity subset, this will provide support for the hypothesis that the effect of shifting power on bilateral trade is conditional on the level of dissatisfaction and the degree of power parity in the dyad.

Data

The study spans the years 1870-2007. The data are arranged in dyad-year format and organized so that the more powerful state in the dyad is State A and the weaker is State B. The dataset is composed of politically relevant dyads. For the purposes of this chapter, these are state pairs that include at least one major power or are contiguous, and that engaged in some level of trade. The descriptive statistics for all model variables are found in Table 3.

Table 3. Descriptive Statistics—Bilateral Trade

VARIABLES	(1) N	(2) mean	(3) sd	(4) min	(5) max
1-Year Shift	21,006	-0.001	0.0591	-0.245	0.241
Dissatisfaction	21,006	9.090	6.840	0	20
1-Year Shift*Dissat.	21,006	-.0375	.637	-4.352	4.424
Ln(Relative Power)	21,006	-0.123	0.276	-5.856	-6.73e-05
Ln(distance)	21,006	5.516	8.188	-25.33	9.377
Ln(GDP)a	21,006	18.86	12.88	0	30.30
Ln(GDP)b	21,006	14.01	11.26	0	28.60
Ln(trade)	21,006	2.896	6.747	-29.93	12.13
Ln(pop)a	21,006	10.99	1.012	4.804	14.10
Ln(pop)b	21,006	8.650	1.204	4.804	14.02
Year	21,006			1870	2007

Trade data is from version 4.0 of the Correlates of War's trade dataset (Barbieri, Omar, Keshk 2016). The dependent variable, *Ln(Trade),* is continuous and is calculated by taking the log of total bilateral trade by dyad-year. In gravity models, it is traditional that the dependent variable and the other conventional gravity model variables be included in their logarithmic forms. This makes interpretation easier and in terms of the percent change X and associated percent change in Y.

The first key independent variable, *1-Year Shift*, measures the one-year change in relative power. This variable is constructed using Carroll and Kenkel's (2016) Dispute Outcome Expectation Scores (DOE), which measure the probability of each state's probability of military victory by dyad-year. This variable is continuous and is calculated by taking the ratio of the weaker state's power and the aggregate power of both states, by dyad-year. I then subtract the value of the ratio at time$_{t-1}$ from

the ratio at time$_t$. The result is the value of a one-year change in relative power. Larger values indicate shifts of greater magnitude towards power equivalence. I expect *1-Year Shift* to be negatively related to bilateral trade.

The second key independent variable, *Dissatisfaction*, is calculated using Polity IV scores, which measure political openness. Higher scores mean that a state is more democratic and lower scores mean it is more autocratic. The variable ranges from -10 to 10. It is assumed that greater divergence in domestic political institutions is indicative of greater divergence in shared foreign policy preferences.[51] *Dissatisfaction* is calculated by subtracting the Polity IV scores of each state in a dyad and then taking the absolute value, by dyad-year. This new variable acts as a proxy for status quo satisfaction and ranges from 0 to 20 with larger values indicating less similarity in shared policy preferences and, therefore, greater status quo dissatisfaction. It is expected this variable is negatively related to bilateral trade.

The interaction of *1-Year Shift* and *Dissatisfaction* is the primary effect of theoretical interest and allows the model to test whether the relationship between shifting relative power and trade is conditional on state status quo evaluations and relative power. It is the expectation that larger shifts in power by a highly dissatisfied state that is closer to power parity with its more powerful trading partner will have the largest negative effect on bilateral trade. Concerns over the gains from trade are expected to be more salient under these dyadic conditions. In addition, the expectation and likelihood of economic and political conflict are also greater.

The next key independent variable, *Ln(Relative Power)*, measures the logged dyadic distribution of power by dyad-year. This variable is continuous and is measured by taking the ratio of State A's CINC score and the sum of both states CINC scores, by dyad-year. I take the log of this variable to adhere to the gravity model convention mentioned earlier. The data for this variable

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[51] For an in-depth discussion concerning this measure and why it is used, please refer to chapter 4.

comes from the Correlates of War's National Material Capabilities, version 5.0 (Singer, Bremer, and Stuckey 1972). I expect this variable to be positively related to bilateral trade, as it is similar to GDP in that it measures the size of each state in the dyad. The six indicators that go into calculating the CINC score are military expenditure, military personnel, energy consumption, iron and steel production, urban population, and total population. Thus, larger CINC scores can be translated as larger states, in terms of both economy and population.

In addition to the key independent variables, control variables are included that are fundamental to the gravity model of trade. The first two variables are the logged GDP of both states in the dyad. *Ln(GDP)a* and *Ln(GDP)b* come from the World Bank's World Development Indicators dataset and are measured in constant 2010 U.S. dollars (World Development Indicators, The World Bank). As mentioned, the expectation is that larger GDP is associated with greater levels of bilateral trade. The next two gravity variables measure the logged population of each state in the dyad. *Ln(pop)a* and *Ln(pop)b* also come from the World Bank's World Development Indicator dataset. The logic for including population variables in the gravity model is the same as for including GDP. Like the measures of GDP, these variables are expected to be positively related to bilateral trade. The final gravity variable is the logged distance between the capital of State A and State B. This variable comes from version 3.2 of the Correlates of War's Direct Contiguity dataset (Correlates of War Project. Direct Contiguity Data, 1816-2016. Version 3.2; Stinnett, Tir, Schafer, Diehl, and Gochman 2002). Unlike the GDP and population measures, this variable is expected to be negatively associated with bilateral trade. The further two countries are apart the costlier it is to trade, leading to less bilateral trade.

Empirical Results

Table 4 reports the fixed effects OLS regression coefficients. Model 1 and 2 report the regression results for the subset of data that only includes dyads that are greater than or equal to 80

percent of power parity. Model 3 and 4 report the results for dyads that are less than 80 percent of power parity. Model 1 and 3 are the baseline models for each subset and do not include the interaction of *1-Year Shift* and *Dissatisfaction.*

In Model 1, a *1-Year Shift* fails to reach statistical significance but is in the hypothesized negative direction. The same is true for *Dissatisfaction.* The coefficient for *Ln(relative power)* is in the expected positive direction but also fails to reach statistical significance. The coefficient for *Ln(distance)* is in the expected negative direction but is not statistically significant. *Ln(GPD)a* is in the opposite direction as expected but is not significant. *Ln(GDP)b* is in the expected positive direction and is significant at the 95 percent level. The coefficients for *Ln(pop)a* and *Ln(pop)b* are in the expected positive direction and are statistically significant at the 95 and 99 percent level, respectively.

Table 4. Fixed Effects OLS Regression Results for Logged Bilateral Trade.

VARIABLES	(1) >=80% parity	(2) >=80% parity	(3) <80% parity	(4) <80% parity
1-Year Shift	-1.086	1.768	3.186*	6.287***
	(1.038)	(1.369)	(1.697)	(2.137)
Dissatisfaction	-0.0285	-0.0267	-0.0977***	-0.0945***
	(0.0183)	(0.0182)	(0.0260)	(0.0255)
Ln(Relative Power)	0.360	0.422	-0.267	-0.342
	(1.899)	(1.901)	(1.050)	(1.067)
1-Year Shift*Dissat.	.	-0.336***	.	-0.444
	.	(0.125)	.	(0.294)
Ln(Distance)	-0.0116	-0.0117	-0.0118	-0.0120
	(0.00983)	(0.00984)	(0.00982)	(0.00982)
Ln(GDP)a	-0.0162	-0.0177	0.0269	0.0263
	(0.0329)	(0.0330)	(0.0285)	(0.0286)
Ln(GDP)b	0.0738**	0.0732**	-0.00399	-0.00405
	(0.0368)	(0.0368)	(0.0321)	(0.0323)
Ln(pop)a	1.727**	1.657**	2.550***	2.564***
	(0.767)	(0.771)	(0.839)	(0.839)
Ln(pop)b	3.587***	3.644***	2.019***	2.005***
	(0.434)	(0.438)	(0.772)	(0.771)
Constant	-48.32***	-47.99***	-42.87***	-42.94***
	(6.739)	(6.743)	(7.139)	(7.133)
Observations	21,079	21,079	8,316	8,316
R-squared	0.119	0.120	0.085	0.085
Number of dyadcode	870	870	503	503

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Model 2 reports the regression results of the full model, including the interaction of *1-Year Shift* and *Dissatisfaction*. Please recall that the coefficients in this model are for the subset of data in which all dyads are greater than or equal to 80 percent of power parity. Immediately apparent is the fact that the coefficients and significance levels are almost identical to those reported in Model 1. The only substantial difference is that the sign on the coefficient for *1-Year Shift* is now positive. This sign flip is simply due to the nature of interaction terms. In Model 2, we can see that the interaction of *1-Year Shift* and *Dissatisfaction* is negative and statistically significant at the 99 percent level. Comparing the results in models 2 and 4, we can see that the interaction of *1-Year Shift* and Dissatisfaction is significant in Model 2 but not in Model 4. This confirms H1. The relationship

between shifting power and bilateral trade is conditional on the level of status quo dissatisfaction and the degree of parity in a dyad.

The interpretation of the constituent terms of the interaction in Model 2 is that when holding *Dissatisfaction* at its mean value, a one-unit change in *1-Year Shift* leads to approximately a 1.8 percent increase in bilateral trade. This makes sense because the average difference in regime-type is roughly equal to 7. Recall that *Dissatisfaction* ranges from 0 to 20, with lower values being the most satisfied. If the mean value of *Dissatisfaction* was closer to 20, the sign for *1-Year Shift* would likely be positive. Likewise, when holding *1-Year Shift* at its mean, a one-unit change in *Dissatisfaction* is associated with approximately a -.03 percent drop in bilateral trade. The negative sign on this constituent term also makes sense, as the mean value of *1-Year Shift* falls roughly between its own 60th and 70th percentile value and more rapid shifts are expected to exert negative pressure on bilateral trade.

Model 3 simply reports the same results as Model 1, but for the less than 80 percent of parity subset. Model 4 reports the results of the full model for the same subset. There are some notable differences in these models from the greater than or equal to 80 percent of parity models. First, in Model 3, *1-Year Shift* is now positive but still fails to reach significance at the 95 percent level. In the baseline model for the near parity subset, the sign was negative. Second, the sign for *Ln(relative power)* is negative in Model 3 and 4, whereas in Model 1 and 2 the sign was positive. While the coefficient for this variable is not significant in any model, it is still worth noting the change in sign. This can be interpreted as an indication that greater degrees of power parity increase trade between states that are already nearly equivalent in national capabilities but decrease trade in those further from power equivalence. While this would be an interesting question for future analyses, I currently have no convincing theoretical reason for why this may be the case. Next, the sign of the coefficient of *Ln(GDP)a* also flips from being negative in Model 1 and 2 to positive in Model 3 and 4. The sign

for *Ln(GDP)b* also changes directions; however, the sign changes from being positive and highly significant to negative and not statistically significant. The other coefficients and signs in Model 3 and 4 are consistent with those reported in Model 1 and 2 with one exception. The sign for Dissatisfaction remains negative in all models but is only statistically significant in Model 3 and 4. Finally, the interaction of *1-Year Shift* and *Dissatisfaction* is not significant in the less than 80 percent of parity subset.

Because of the insignificance of the interaction term in Model 4, the model of interest for the less than 80 percent of parity subset is the baseline reported in Model 3. Of note in this model is that *Dissatisfaction* is negative and significant at the 99 percent level and exerts an effect on bilateral trade that is independent from *1-Year Shift*. In the near parity subset, the effect of *Dissatisfaction* is conditional on *1-Year Shift*. The coefficient for *Dissatisfaction* in Model 3 indicates that a one-unit increase in *Dissatisfaction* is associated with roughly a 0.1 percent decrease in bilateral trade when holding all other variable at their means. This can be interpreted to mean that trade partners that are further from parity are not as concerned with the relative growth of their trade partners but more with the degree of status quo satisfaction existent in the dyadic relationship.[52]

The uniformly different signs for the GDP variables from State A and State B and from model to model may not be that surprising. It has been shown that GDP can be positively or negatively related bilateral trade, depending on whether trade is in capital-intensive or labor-intensive goods, respectively (Bergstrand 1989; Long 2008). Because I do not have data that differentiates between trade in capital and labor-intensive goods, I am not able to elaborate further on this finding

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[52] It is worth noting that the differences in sample sizes between the two subsets of data. If we could increase the observations in the less than 80 percent of parity subset the level of significance for *1-Year Shift* may increase as well. If this were to be the case, then the last statement concerning trade partners that are further from parity and their concern with shifting power would be incorrect. Of course, this is purely hypothetical and from the data available this seems to be the best conclusion.

at this time. This may be an interesting avenue for future research. Specifically, whey it appears to be the case that this effect is dependent on the degree of power parity existent between trade-partners.

Substantive Results.

To provide a more intuitive interpretation of interaction term in Model 2, marginal effects are reported in Figure 4 and 5. The dashed horizontal line in both figures is equal to the average marginal effect of Model 2 on bilateral trade flow and is included for context and interpretability. In Figure 4, *1-Year Shift* is set to range from its minimum to maximum value while holding *Dissatisfaction* at its mean. Recall that this is for the subset of data that only includes dyads that are greater than or equal to 80 percent of power parity. We can see that, holding *Dissatisfaction* at its mean, a dyad in which the weaker state experiences a shift equal to the minimum value of *1-Year Shift*, does not experience significantly more bilateral trade than a dyad in which the weaker state experiences a shift equal to the maximum value. However, the effects of a minimum shift and a maximum shift on bilateral trade are both significantly different from zero.

Figure 4. Marginal Effect of Shifting Power at Mean Value of Status Quo Dissatisfaction.

*Dashed line equals the basline marginal mean for model 2.
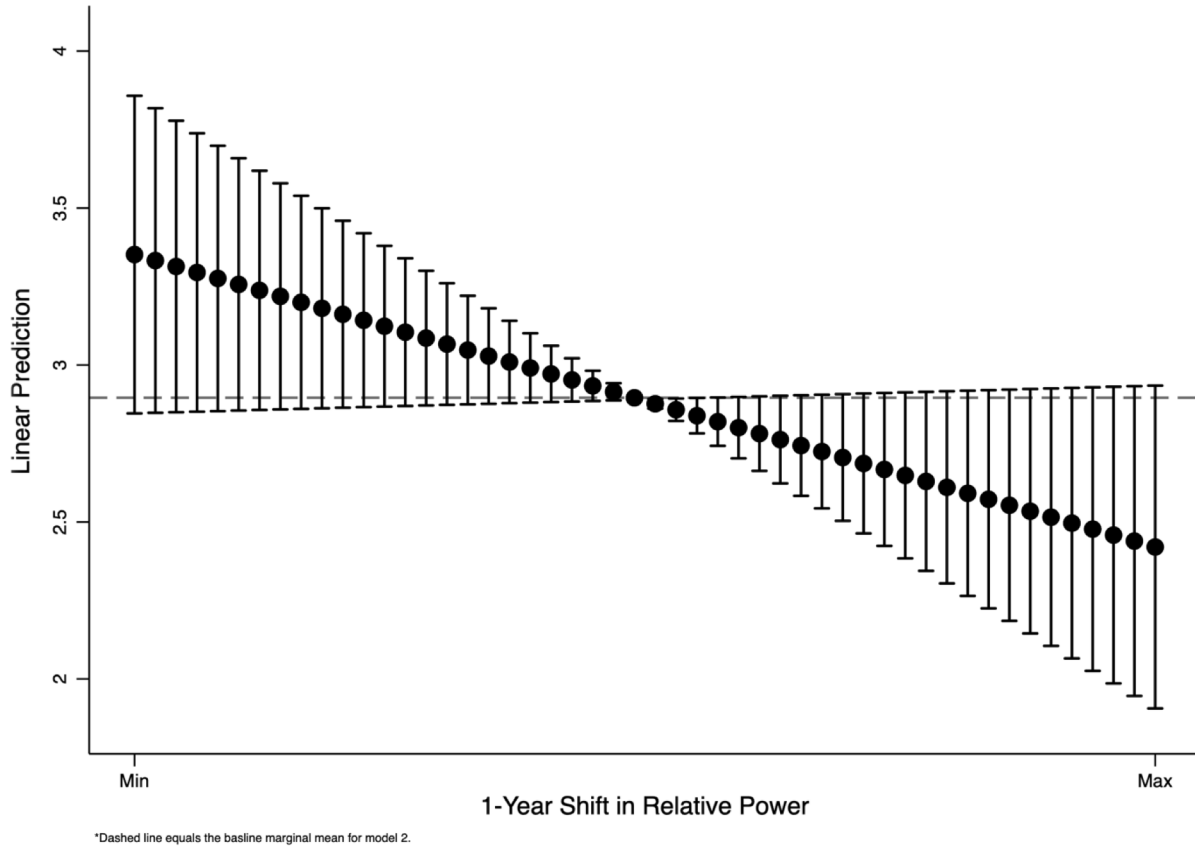
In Figure 5, *1-Year Shift* ranges from its minimum to maximum values with *Dissatisfaction* hold constant at its maximum value of 20. This directly tests the hypothesized effect of shifting power and status quo dissatisfaction on bilateral trade. Among highly dissatisfied dyads that are near parity, the difference between a minimum one-year shift and a maximum one-year shift statistically significant at the 95 percent level. Additionally, *1-Year Shift* exerts negative pressure on bilateral trade, confirming H1. According to the marginal effects reported in Figure 5, a dyad experiencing a maximum shift in relative power is predicted to engage in 67.5 percent less bilateral trade than a dyad that experiences shift at the minimum value. The results in Figure 5 provide further validation of H1 and the expectation that shifting power leads to a decline in bilateral trade in dyads characterized by a high level of status quo dissatisfaction and that are near power parity.

Figure 5. Marginal Effect of *1-Year Shift* at Max Value of Status Quo Dissatisfaction.

*Dashed line equals the basline marginal mean for model 2.
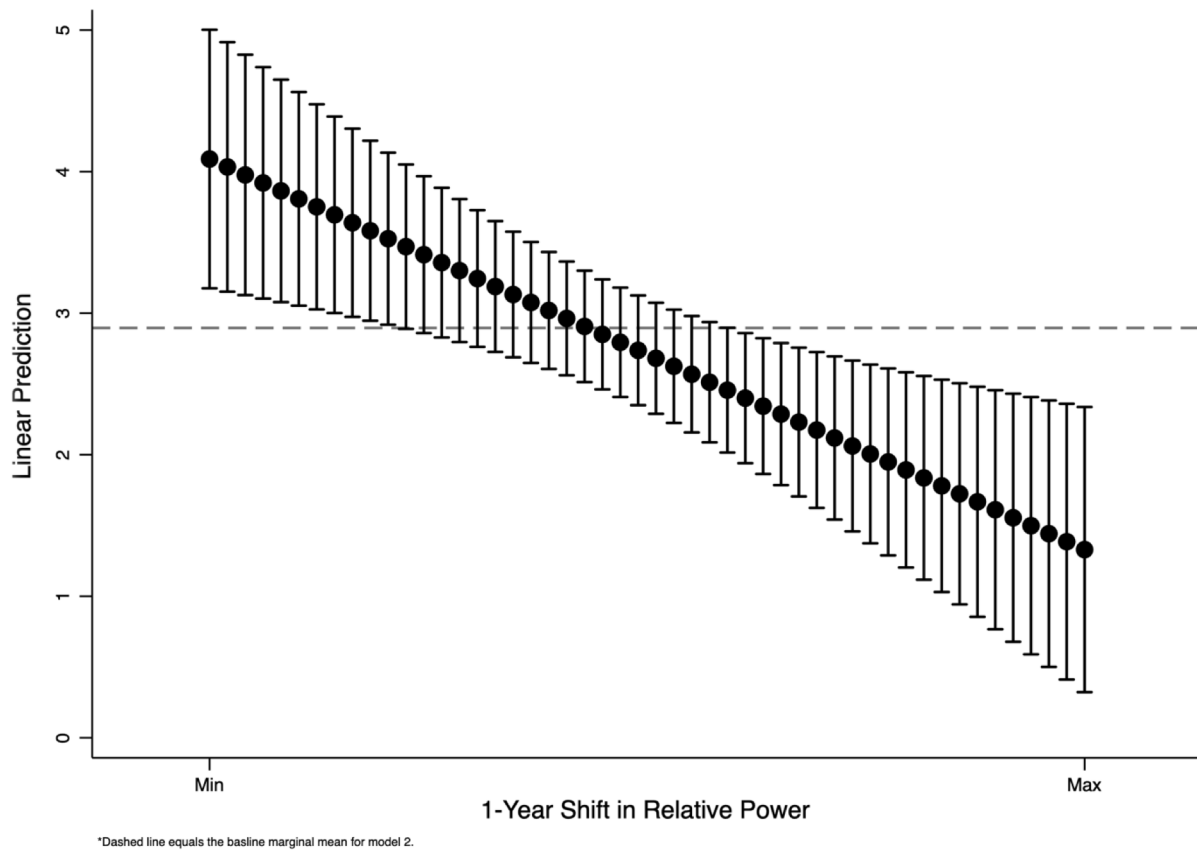
Conclusion

This study has provided an important and neglected detail to the story of bilateral trade and conflict. It is the first study to analyze the conditional effects of shifting power, status quo evaluations, and power parity on bilateral trade flows. The main argument of this chapter is that rapid shifts in the distribution of power, coupled with status quo dissatisfaction and power parity, exert negative pressure on bilateral trade flows between states in the international system. Two theoretical explanations were offered for this relationship.

First, I argued that because the gains of trade can be used to increase relative power, states will take steps to curb the growth of their adversaries, with the goal of preserving the status quo distribution of benefits. Second, it was argued that threat or realization of armed conflict and other

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coercive foreign policies can have a direct impact on trade flows. Both explanations work in tandem to explain how shifting power, status quo dissatisfaction, and power parity work together to reduce bilateral trade.

The empirical results provide evidence in support of my theoretical expectations. Rapid shifts in relative power, by a dissatisfied state that is near power parity with its more powerful counterpart, lead to a significant reduction in bilateral trade. The results indicate that, compared to a dyad in which the weaker state experiences a minimum shift in power, a dyad in which the weaker state experiences a maximum shift in power engages in 67.5 percent less bilateral trade.

Placed in context of the general theory of this dissertation, these findings support the argument that power transition theory is useful beyond its proven utility in explaining the occurrence of great power war or regional armed conflict. Specifically, this chapter validates the argument that power transition theory can explain the use of foreign policies that fall short of military action.

CHAPTER VI

FOREIGN AID

While it is intuitive that states give foreign aid to their friends, perhaps less intuitive is the observation that they give aid to their adversaries. This chapter is interested in the latter phenomenon. Specifically, it investigates how donors use foreign aid as a tool of foreign policy to persuade their adversaries to fall in line with their policy preferences. Whether recipients are friend or foe, foreign aid can be used by donor states as a carrot and a stick. Aid can be used to entice foreign states to adopt policies that are conducive to the donor's interests or can be rescinded to punish recipients that do not fall in line. In this chapter I ask how rapid increases in in relative power, status quo dissatisfaction, and power parity effects how states use of foreign aid as a tool of foreign policy.

In the previous chapters, I provide evidence that shifts in relative power, status quo dissatisfaction, and power parity significantly affect the probability of economic sanctions imposition and the flow of bilateral trade. In this chapter, perhaps counterintuitively, I argue, and find evidence for the argument, that rapid increases in relative power by a weaker adversary increases the probability that a declining status quo state will provide a growing revisionist state with foreign aid. In addition, I argue that these same conditions lead to an increase the amount of aid provided. A declining status quo state will provide a growing revisionist state with foreign aid to foster economic dependence on the part of the growing revisionist state. By increasing the revisionist's dependence on their provision of foreign aid, the status quo state raises the cost that the revisionist will incur if

that aid is reduced or rescinded completely. In the empirical analysis, I find support for my theoretical expectations—namely, that shifting power, status quo dissatisfaction, and power parity work together to make the provision of foreign aid more likely.

The rest of this chapter is laid out as follows. First, I review the foreign aid literature that deals specifically with the provision of aid to unstable and adversarial states. These studies are relatively new, as well as few in number. The first is the study by Savun and Tirone (2018), which provides evidence in favor of the argument that donors give aid to governments in terrorist-prone states in order to disincentivize their citizens from joining terrorist organizations. The second study is Uzonyi and Ryder's (2017) analysis of the provision of foreign aid among rival states. After the literature review, I present my theoretical expectations, including three sets of testable hypotheses, concerning the effect of relative power, status quo dissatisfaction, and power parity on both the probability of foreign aid's provision and the amount of aid donors provide to adversarial states. The theory is followed by a discussion of the data and methods used in the empirical analysis. I then present the empirical results, followed by a discussion concerning the implications of the findings.

Literature Review

The following literature review focuses on studies dealing with the provision of foreign aid between rival states. These studies are the most relevant to the current study, in that rivalry and status quo dissatisfaction are similar concepts. Both are attempts to measure conflictual interstate relations and are indicators of dyadic status quo satisfaction. Rival states are, by implicit definition, dissatisfied with the dyadic status quo. Studies of rivalry and foreign aid generally fall into a single camp; however, recent work provides an emerging alternative. The main camp argues that rivalry is generally associated with less likelihood of aid provision and less aid when it is provided (Boschini and Olofsgard 2007; Colaresi 2004; Meernik, Krueger, and Poe 1998; Poe 1992; Rudloff, Scott, and Blew 2013). The arguments and findings of these studies vary, however. For example, Colaresi

(2004) argues that leaders of donor states may be punished by constituents if they provide aid to rival and it is not reciprocated. Boschini and Olofsgard (2007) find that more intense rivalry decreases aid. Rudloff et al., (2013) find support for the argument that rivalry causes states to give aid to a rival's enemies but to not provide the rival with foreign aid. In this vein, Meernik et al., (1998) and Poe (1992) analyze where the United States sent foreign aid during Cold War to combat the Soviet Union's influence in other states.

An alternative emerging body of work, that is much less voluminous and more recently established, argues that states sometimes have the incentive to provide foreign aid to states other than their friends, including rivals and states that are experiencing political instability (Uzonyi and Rider 2017; Savun and Tirone 2018). Savun and Tirone (2018) argue that foreign aid reduces terrorism in recipient states by reducing the incentive for individuals to participate in terrorist organizations. Donors have the incentive to provide foreign aid to states where terrorist organizations are likely to prevent their growth or proliferation. Specifically, the authors argue that the provision of governance and civil society aid dampen participation in terrorist groups and that organized civil society organizations are key to democracy promotion (6). In their empirical analysis, the authors find evidence that greater amounts of civil society and governance aid reduce terrorist attacks in recipient states, unless a civil war is ongoing.[53] While the Savun and Tirone, study does not differentiate between rival and non-rival states, it does help to establish the argument that the incentive to provide foreign aid to other states is not only based on congenial interstate relations. In other words, states do not only have incentives to give aid to their friends, but also to further their foreign interests.

Uzonyi and Rider (2017) also analyze the stabilizing effects of foreign aid in recipient states; however, theirs is the first study asking why donors provide aid to rival states. The authors argue

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[53] Governance aid refers to foreign aid aimed at spurring or fostering greater democratization in the recipient state.

along the lines of the adage "Better the devil you know than the devil you don't." Their first hypothesis is that greater instability in a state will increase the probability of the provision of nonmilitary aid between it and a rival donor. Their theory is simply that "instability-induced turnover," in which a leader is deposed and replaced by another leads to greater uncertainty and an increased probability of violent conflict (277-278). This argument is based on the logic of the bargaining theory of war and specifically the theory's augments concerning uncertainty concerning the resolve of rival states to use force (Fearon 1995). Internal instability can increase the prospect of irregular leader turnover (280). In turn, irregular leader turnover brings the greatest uncertainty concerning the new leader's resolve, as you may end up with a more hawkish leader in power, as a result. In turn, greater uncertainty over resolve increases the probability of escalation to armed conflict because of the incentive to misrepresent this information to adversaries. That said, the authors concede that the destabilization of a rival state is not a negative development in every case. It may be the case that reducing the resources of a rival state could turn out to be a positive tactic if doing so weakens them militarily while not causing the regime to collapse, resulting in irregular leader turnover (278). Additionally, in conditions of low uncertainty, concerning who would take the deposed leader's place, a rival state may have the incentive to destabilize the current regime. This would be the case if the new leader in waiting was known to be less or equally hawkish as the incumbent. The current situation in Venezuela is a good example of this exception. The situation in Syria, however, is its inverse. These exceptions aside, the authors focus on conditions of high uncertainty, in which a donor has the inventive to provide foreign aid to a rival regime in order to stabilize it enough to prevent the current leader from being deposed of power. Non-military aid can be used by the rival regime to bolster current supporters or pay off domestic opposition groups, increasing stability while decreasing the probability of irregular turnover.

An important secondary finding of Uzonyi et al.'s study is that rivals never provide each other with military aid. As a result, the authors analyze the provision of non-military aid in their study. Providing nonmilitary aid to an adversary increases stability, decreasing the probability of regime change, the associated uncertainty concerning the new regime's resolve, and the greater probability of escalation. Importantly, this is accomplished without increasing the military capabilities of the rival state. [54]

After running a battery of logit and OLS models, Uzonyi and Rider find that donor states provide nonmilitary aid to their rivals as a result of political instability. They find no difference between rival and non-rival states provision of aid in the face of domestic instability in recipient states. Both are equally as likely to give non-military aid in conditions of high uncertainty; however, rivals do give smaller amounts of aid in these situations because leaders in donor states are restrained by the watchful eye of their constituents.[55] If you provide more aid to a rival and it is not reciprocated, you can lose popularity or office. This last finding is in line with earlier studies of foreign aid (Colaresi 2004). The current study fits into this newly emerging camp, however, the theoretical expectations for why aid is provided to rival states are not the same.

Theory

Do states give foreign aid to rapidly growing adversaries? Studies of the determinants of foreign aid's provision have not considered this question. As a result, I offer a novel theory in this respect. I argue that, while foreign aid can be used in attempt to improve economic and political stability in recipient states, it can also be used to increase the recipient's dependence on the donor state, increasing the cost recipient states pay when its provision is rescinded or reduced by the donor. This is similar to the argument made by Early and Jadoon (2019). Therefore, foreign aid can

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[54] This is the motivation for the current study to focus its analysis on non-military aid.
[55] My results concerning the amount of aid provided reinforce this finding.

be used as a foreign policy tool that provides donor states with a stick and carrot to entice and coerce the recipient state into doing its will. The provision of aid (the carrot) enables the donor state to offer inducements to the recipient state that encourage them to act in accordance with the preferences of the donor. In the case of shifting power, aid can work to disincentivize the increasing state from making demands to alter the status quo that are unacceptable to the more powerful donor. Rescinding aid (the stick), or the threat to do so, enables the donor to punish the recipient when it acts against these preferences. This is simply another manifestation of negative sanctions, and one that falls into the definition of sanctions put forward by Hufbauer, Schott, and Elliot (1990).[56]

The argument is that enticements can be used to curb or limit the demands made by a growing dissatisfied state. It is a classic case of gaining bargaining leverage. The goal is to make the growing challenger dependent enough on your provision of aid to increase the cost of any demand they may make as a result of their new position in relative power. The more dependent they are on your provision of aid, the more costly it is to lose it. The declining state can provide aid with this goal in mind. This leads to one of the reasons I look to non-military aid in the empirical analysis. Military aid will directly increase the relative power of the growing adversary, directly enhancing its ability to come off victorious in battle. Providing the growing adversary with military aid would be ill-advised and work counter to the argument just laid out. It is also within the realm of possibility that aid can be used to decrease the growing power's dissatisfaction with the status quo. In 2018, the United States provided millions of dollars in aid to Iran, North Korea, and China, none of which came from the Department of Defense (not military aid).

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[56] Both Hufbauer et al., (1990) and Morgan, Bapat, and Krustev (2009) expressly include the recension of foreign aid as a manifestation of economic sanctions in their definition.

A recent paper by Early and Jadoon (2019) argues along these same lines. The authors argue that aid sanctions provide a less costly substitute to commercial sanctions, for the sending state. Disrupting aid flows, on the other hand, can be very costly for the target state. The authors further argue that greater amounts of aid make sanctions threats more credible and make the sender more likely to threaten sanctions on aid. They explain that senders often use the provision of aid with the goal of altering the behavior of the recipient state and can limit or take away the aid if the recipient does not act accordingly. Because of the costliness of aid sanctions to the target, and the associated increase in the sender's credibility to impose sanctions, the threat of aid sanctions is more likely to be successful as the amount of aid being provided increases. They find support for their expectations. In addition to Early and Jadoon's study, Morrow (1999) also argues that greater amounts of foreign aid provide the donor with more opportunities to communicate the credibility of their willingness to impose sanctions on the recipient state (see also Bueno de Mesquita and Smith 2007; Newnham 2008).

In context of my theory, it follows logically that donors may have the inventive to provide aid to a growing adversary, in order to make their treats more credible and making it more likely that the recipient state will act in accordance to the will of the donor. In context of shifting power, and the associated demands to revise the status quo, greater amounts of foreign aid will make it less likely for the growing state to issue costly demands to alter the status quo, simply because of the prospect of losing the aid they are receiving.

The literature on armed conflict and my own study on economic sanctions argue that rapid shifts in relative power by a dissatisfied state increase the probability of armed conflict initiation and economic sanctions imposition, respectively. However, Uzonyi and Rider's (2017) theoretical expectations and robust empirical findings suggest that conflictual interstate relations, in their case state rivalry, can have a positive effect on aid flows between adversaries, due to its stabilizing effect

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on a rival regime.[57] Their argument and findings are counterintuitive, as it seems logical that adversarial states would not have incentives to provide each other with aid. The United States reversal on their policy of regime change in Syria provides an anecdote that is illustrative of this idea. The United States prefers the ouster of Al Assad's regime but is uncertain whether the regime's replacement would make conditions more or less conducive to United States security and policy goals in the region and the around the globe. As a result, the United States incentive to keep Assad in power is currently greater than the incentive to replace him. This likely explains why the Obama administration reneged on its red line threat to intervene in Syria if evidence of chemical weapons use emerged. Seeing no viable alternative, President Obama stuck with the devil he knew and refrained from taking steps to further destabilize Assad's regime. The Trump administration has, thus far, followed suit. Are there other conditions that incentivize the provision of foreign aid to one's adversaries? I argue that rapid changes in relative power provide this incentive.

What would incentivize a donor state to provide aid to a rapidly growing adversary? The answer lies partially in the expectations of Neo-Kantianism, which argues that the triad of shared IGO membership, economic interdependence, and joint-democracy decreases the likelihood of economic coercion between states in the international system (Drury, James, and Peksen 2014). Arguing along these lines, Russett (2003) finds evidence that the existence of these three Kantian variables decreases armed interstate conflict by up to seventy percent. This is especially true in cases of asymmetrical interdependence in which one state is much more dependent on the economic relationship than the other and is relatively small in terms of GDP. Larger states have more outside options, decreasing the costliness of interrupted economic exchange with an adversary due to

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[57] This chapter also looks at non-military aid. Rival states do not provide each other with military aid, so the effect of the shifting power of the provision of military aid to an adversary will likely not be that insightful.

economic or military conflict.[58] In context of foreign aid, an important implication is that when asymmetrical interdependence is present in a state dyad, a dependent recipient of foreign aid will be less likely to challenge the status quo in fear of losing the aid it is receiving from the more powerful status quo state that is also the donor. Unlike its more powerful counterparts, a weaker, aid-dependent state does not have outside sources to which it can turn to replace lost income as a result of losing, or experiencing reductions to, its provision of foreign aid. This makes the aid-dependent state more vulnerable to the demands of the more powerful donor.

In line with Russet's explanation, but contrary to the findings of Drury et al., (2014) concerning joint democracy's pacifying effect on political-economic relations, I argue that foreign aid can be used by more powerful donor states to foster greater dependence on the part of a less powerful adversarial recipient. As the recipient state becomes more dependent on the provision of aid from the donor, any foreign policy decision that will jeopardize its continued provision becomes costlier to the recipient. This idea is not new by any means. Hirschman (1980 [1945]) argued that more powerful states cultivate asymmetrical trade relationships with less powerful states in order to bring the latter's economy and foreign policies in line with those favorable to the former. I am merely applying this argument to the provision of foreign aid, and in the specific context of shifting relative power between adversarial states. In this vein, I argue that a rapid shift in relative power, in favor of the less powerful recipient state will incentivize the donor to increase its provision of aid with this goal in mind. This leads to the first two testable hypotheses concerning the probability that the status quo state will provide aid to the growing adversary and the amount of aid it is willing to give.

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[58] One implication of this is that two large states do not often provide each other with aid. In my empirical analysis, I find support for this argument.

H1a: rapidly shifting relative power in favor of the weaker state in a dyad has a positive effect on the probability of foreign aid provision.

H1b: rapidly shifting relative power in favor of the weaker state in a dyad exerts a positive effect on the amount of foreign aid provided by the donor.

Knowing that greater aid dependence makes it costlier for the recipient to act contrary to the donor's preferences, concerning the status quo distribution of benefits, the recipient state will be less likely to issue a demand to revise the status quo that is large enough to incentivize the donor to rescind or reduce its provision. The implication being that increased dependence on the foreign aid provision of the status quo power makes it less likely that the revisionist will demand an alteration to the status quo distribution of benefits that is commensurate with its own newly acquired position in the dyadic distribution of power.

In terms of bargaining, foreign aid increases the costs associated with bargaining failure that results when the revisionist issues a demand to alter the status quo that is unacceptably large to the status quo power. This simultaneously increases the settlements that the recipient will accept and moves the bargaining range closer to the donor's ideal point, allowing the latter to demand more, in the way of maintaining the status quo, after providing aid than in could in the absence of its provision. The "more" in this case comes in the form of the status quo state's demand to maintain the status quo distribution of benefits.

Status quo evaluations.

A key element of my argument is the degree to which the growing state is dissatisfied with dyadic status quo. After all, a growing but satisfied state will not likely be as worrisome to the declining status quo power as a dissatisfied adversary that will likely have the incentive to challenge the status quo as a result of its improved position in the distribution of dyadic power. This leads to a second set of testable hypotheses.

H2a: greater status quo dissatisfaction increases the probability of foreign aid provision.

H2b: greater status quo dissatisfaction increases the amount of aid provided.

H2c: the relationship between shifting power and the probability of foreign aid is conditional on the degree to which the growing power is dissatisfied with the status quo.

H2d: the relationship between shifting power and the amount of aid provided is conditional on the degree to which the growing power is dissatisfied with the status quo.

Power parity.

Another key variable of my theory is how close the growing revisionist state is to the status quo state in relative power. There are two reasons for power parity's importance in the question of foreign aid. The first reason stems from the mechanisms driving the theory. First, it is unlikely that a potential donor will provide foreign aid to a state that is nearly its equivalent in relative power, with the goal in mind of fostering asymmetric interdependence. This will be more plausible between a preponderant donor and much weaker recipient. Second, a potential donor, in a dyad consisting of states similar in relative power, will be less likely to see the need to provide aid than a one in a dyad characterized by power preponderance. A state seeking assistance is more likely to seek it from a source that is not in the same desperate economic boat, so to speak. The implication is that shifting power's effect on both the probability of foreign aid and the amount of aid a donor provides is conditional on the status quo evaluation of the growing state as well as the degree of power parity existent between it and the status quo state. This leads to four more testable hypotheses.

H3a: power parity decreases the probability of aid provision.

H3b: power parity decreases the amount of aid provided.

H3c: the relationship between shifting power and the probability of aid is conditional on the degree to which the growing power is dissatisfied with the status quo and the level of power parity existent in the dyad.

H3d: the relationship between shifting power and the amount of aid provided is conditional on the degree to which the growing power is dissatisfied with the status quo and the level of power parity existent in the dyad.

Data

The unit of analysis for this study is directed-dyad-year, spanning the years 1981 to 2001. The data is organized so that State A is both the potential aid donor as well as the more powerful state in the dyad (also the status quo state), making State B the potential aid recipient and relatively less powerful than State A (also known as the revisionist state). There are two dependent variables. The first, *Aid*, measures whether State A provided State B with aid. The second, *Aid Amount*, is the natural log of how much aid State A provided State B when aid was provided. Foreign aid data comes from Tierney, Nielson, Hawkins, Roberts, Findley, and Popwers (2011). The key independent variables are the same two that are used for the empirical analysis in the economic sanctions chapter. The first, *1-Year Power Shift*, measures the one-year change in relative power between the states in each dyad. This variable is constructed using Carrol and Kenkel's (2017) Dispute Outcome Expectation Scores and measures the change in relative power over a year's time. The second key independent variable, *Dissatisfaction*, measures the absolute difference in regime type between the states in each dyad. The variable ranges from 0 to 20 with 20 being the most satisfied. This variable is constructed using data from the Polity IV Project (Marshall, Jaggers, and Gurr 2010). Finally, *Relative Power* measures how close two states are to power parity and is constructed using DOE scores. The remaining control variables for this analysis are those factors know to affect the provision of foreign aid. The main effect of interest is the interaction of *1-Year Shift* and *Dissatisfaction*. The descriptive statistics are found in Table 5.

Table 5. Descriptive Statistics--Foreign Aid.

VARIABLES	(1) N	(2) mean	(3) sd	(4) min	(5) max
1-Year Shift	119,429	-4.64e-05	0.0195	-0.271	0.254
Dissatisfaction	119,429	7.965	6.410	0	20
Relative Power	119,429	0.440	0.0570	0.115	0.5
Year	119,429	1,992	6.005	1,981	2,001
Democracy$_B$	119,429	1.809	7.344	-10	10
Aid	119,429	0.456	0.498	0	1
Aid Amount	119,429	0.427	2.426	0	20.76
Rivalry$_{AB}$	119,429	0.00517	0.0717	0	1
Assassination$_B$	119,429	0.0888	0.284	0	1
Riot$_B$	119,429	.111	.314	0	1
Civil War$_B$	119,429	0.0914	0.288	0	1
Irregular Turnover$_B$	119,429	0.128	0.335	0	1
Ln(GDPpc)$_B$	119,429	1.481	0.105	1.254	1.791
Ln(Population)$_B$	119,429	15.51	1.168	12.83	20.96
Human Rights$_B$	119,429	5.226	2.213	0	8
Trade Dependence$_{BA}$	119,429	0.00386	0.0235	0	2.450
Trade Openess$_B$	119,429	0.305	0.457	0	7.518
Ln(GDPpc)$_A$	119,429	1.465	0.111	1.254	1.828
Ln(Population)$_A$	119,429	16.90	1.533	12.62	20.96
Colony$_{BA}$	119,429	0.0133	0.115	0	1
Defense$_{AB}$	119,429	0.0747	0.263	0	1
Ln(distance)$_{AB}$	119,429	8.052	1.473	0	9.421
Post-Cold War	119,429	0.658	0.474	0	1
Aid Year	119,429	2.451	3.865	0	29
Aid Year^2	119,429	20.95	60.11	0	841
Aid Year^3	119,429	260.5	1,178	0	24,389

Democracy$_B$ is the Polity IV score for State B, ranging from fully autocratic, -10, to fully democratic, 10. Bueno de Mesquita and Smith (2009), and Uzonyi and Rider (2017) provide evidence that obtaining policy change in more democratic states is more difficult than doing so in more autocratic states. Therefore, a greater degree of democracy in the weaker state should have a negative effect on the probability of aid as well as how much aid is given.

Rivalry$_{AB}$ comes from Klein, Goertz, and Diehl (2006), equaling one if states in a dyad were rivals and zero otherwise. Rivals should be less likely to provide each other with aid as a result of their poor diplomatic relations due to their history of repeated armed conflict. Rivalry is expected to decrease the probability of aid being given and to reduce the amount provided.

I also include four control variables used by Uzonyi and Rider (2017) that measure internal political instability in the potential recipient state. I include these variables as the authors provide evidence that they are positively and significantly related to both provision of aid and the amount of aid provided. The first three variables are originally from Banks (2015). The fourth, *Irregular Turnover$_B$*, originally comes from Goemans, Gleditsch, and Chiozza (2009). In addition, I control for other factors known to affect the provision of foreign aid.

The next four variables come from Uzonyi and Rider's study. The first is *Assassinations$_B$* and indicates whether there was an assassination or attempted assassination of a government official or politician in State B. It equals one if there was an attempted or successful assassination and zero otherwise. It is expected that assassination attempts or the assassination of a government official or politician in the weaker state will increase the probability of aid as well as the amount of aid the donor provides.

Civil War$_B$ indicates whether there was a Civil War in State B. This variable is binary and equals one if "Any armed activity, sabotage, or bombings carried out by independent bands of citizens or irregular forces and aimed at the overthrow of the present regime" and zero otherwise (Uzonyi and Rider 2017, p.282). It is expected that Civil War in the weaker state will be positively related to the probability of aid and the amount of aid given.

Riot$_B$ indicates whether State B experience a riot for each dyad-year, equaling one if this was the case and zero otherwise. Uzonyi and Rider provide evidence that riots in potential recipient states both increase the probability of aid the amount of aid given. My expectations are the same.

Irregular Turnover$_B$ equals one for any dyad-year in which State B experienced irregular leader turnover and zero otherwise. There is evidence that the irregular turnover of a political leader increases the likelihood of aid and the amount given. It is expected that *Irregular Turnover$_B$* is positively related to both outcomes.

Ln(GDPpc)$_B$ is the natural log of State B's GDP per capita. Wealthier states are in less need of foreign aid than their poorer counterparts, making the provision of aid to the latter more likely. The data for this variable comes from the World Bank (2012). It is expected that larger GDP per capita in the weaker state will decrease the probability that the more powerful state will provide it with foreign aid and will decrease the amount of aid given when provided.

Ln(Population)$_B$ is the natural log of State B's population and is also taken from the World Bank (2012). States with larger populations are more likely to be in need of foreign aid. It is my expectation that larger population in the weaker state increases the probability of aid and the amount of aid provided.

Human Rights$_B$ measures State B's protection of human rights. States with better human rights records are more likely to receive foreign aid. This data comes from the CIRI Physical Integrity Rights Protection Scale (Cingranelli, Richards, and Clay 2014) and ranges from zero to eight, with higher scores indicating a better record on human rights. This variable should be positively related to the provision of aid and the amount of aid given.

Trade *Dependence$_{BA}$* measures the degree to which State B is dependent on State A for trade. Trade dependence has been shown to increase the likelihood that the dependent state will receive foreign aid. In line with previous studies, this variable is the natural log of the ratio of State B's trade with State A and State B's GDP per capita.[59] The data for this variable comes from the World Bank (2012). *Trade Dependence$_{BA}$* should be associated with an increase the probability of aid and the amount of aid given.

Trade Openess$_B$ is the ratio of the natural log of State B's total trade and its GDP per capita. It has been shown that more economically open states are more likely to receive foreign aid. Data for

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[59] See Barbieri and Keshk (2012) and Uzonyi and Rider (2017).

this variable also comes from the World Bank (2012). This variable should be associated with an increase in the probability of aid and the amount provided by the donor state.

$Ln(GDPpc)_A$ is the natural log of State A's GDP per capita. Wealthier states are better able to provide aid than poorer states. Higher GPP per capita in the potential donor increases the probability of aid's provision. The data for this variable comes from the World Bank (2012). This variable should be positively related to the provision of aid and the amount of aid provided.

$Ln(Population)_A$ is the natural log of State A's population and is also taken from the World Bank (2012). States with larger populations may have more resources to provide aid to other states, making the provision of aid more likely. This variable should be positively associated with both of the outcomes of interest.

$Colony_{BA}$ indicates whether State B was ever a colony of State A. This variable is equal to one if State B was ever a colony of State A and zero otherwise. It has been illustrated that past colonial relationships increase the probability of foreign aid.

$Defense\ Alliance_{AB}$ equals one if State A is in a defense alliance with State B and zero otherwise. Being in an alliance should increase the probability of aid.[60]

$Ln(Distance)_{AB}$ is the natural log of the distance between State A and State B. Being in closer proximity should increase the probability of aid.

$Post\text{-}Cold\ War$ is a dummy variable equaling one for all years after 1990 and zero for all years prior. It is included to control for the possibility that aid patterns were different during the Cold War than they were after. This could be the case because of the shift from a bi-polar to a uni-polar international system in which the two dominant powers were no longer vying for global influence and the support of third-world. It is expected that this variable will be negatively associated with the probability of aid and the amount of aid provided.

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[60] See Drury, Olson, and Van Belle (2005).

Aid Year, *Aid Year²*, and *Aid Year³*, are included in the model to control for temporal dependence. They measure the numbers of years since State B received aid from State A. After Travis (2010) and Uzonyi and Rider (2017) the *Inverse Mills Ratio* is included in the OLS regressions (Models 4-6) to determine whether the provision of aid is related to the amount of aid provided. It is included to correct for selection bias, as the motivation to provide aid is most likely also related to the amount of aid provided. The full statistical models also include two interaction control terms. These are an interaction between *1-Year Shift* and *Relative Power* and another between *Relative Power* and *Dissatisfaction*.

Methods

The empirical analysis consists of four logistic regression models that test the probability of aid provision and four OLS regression models for the amount of aid given by the donor. As in the trade and sanctions analyses, the data is divided based on the degree of power parity existent in the dyads. The first subset includes dyads that are at least 80 percent of power parity. The second subset includes the dyads that are less than 80 percent of parity. To reiterate, this is the traditional threshold used in studies of power transition theory. Sub-setting the data allows me to eliminate the need for the trichotomous interaction between shifting power, status quo dissatisfaction, and power parity. If the interaction of shifting power and status quo dissatisfaction is significant in the subset of near-parity dyads and not in the no-parity subset, this will provide support for the hypotheses that the effect of shifting power on the probability of aid and its effect on the amount of aid contributed by donor states are conditional on the level of dissatisfaction and the degree of power parity in a state dyad.

Four statistical models are run on each subset of data. The first four models are logistic regression models and test the hypotheses concerning the probability that aid is given. The first of these models is the base model and does not include any interaction terms. The second logistic

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regression model is the full model and includes the interaction of *a 1-Year Shift* and *Dissatisfaction*. The next four models are OLS and test the hypotheses concerning the amount of aid a donor provides. The four models are identically constructed across both subsets of data. As with the logistic regression models, the first model is the base model and the second is the full model that includes the interaction of *1-Year Shift* and *Dissatisfaction*. Marginal effects are also calculated to provide a more intuitive and substantive interpretation of the coefficients reported in the regression results.

Empirical Results

Table 6 reports the results of all four logistic regression models. The dependent variable is the binary indicator *Aid*. Model 1 tests *H1a, H2a, and H3a,* reporting the independent effects of shifting power, status quo dissatisfaction, and relative power, as well as well as the effects of other control variables that have been shown to affect the probability of the provision of foreign aid. The results offer support for all three hypothesized effects. The coefficient for *1-Year Shift* is positive and significant at the 99 percent level, confirming the expectation of *H1a* that rapid changes in relative power increase the probability that aid will be provided to the increasing state. The coefficient for *Dissatisfaction* is in the expected positive direction and is significant at the 99 percent level as well, providing support for *H2a*. Donors are more likely to give foreign aid to a weaker recipient state as dissatisfaction with the status quo increases. Finally, the coefficient for *Relative Power* is negative and significant at the 99 percent level, providing support for *H3a*. Donors that are nearer to power equivalency with the potential recipient state are less likely to provide the latter with foreign aid.

Model 2 reports the log odds of the full *Aid* model for the subset consisting of dyads that are at least 80 percent of power parity. This model includes the interaction of *1-Year Shift* and *Dissatisfaction*. We can immediately see that the the interaction term is significant at the 99 percent level, providing tentative support for *H2c*. The effect of shifting power on the probability of aid

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provision is conditional on the level of status quo dissatisfaction existent in the dyad. We can also

see that the interaction term is not significant in the less than 80 percent of parity subset. This

provides support for *H3c*. The relationship between shifting power and the probability of aid is

conditional on the degree of status quo dissatisfaction and the level of power parity existent in the

dyad. This is the primary effect of interest in the *Aid* analysis. The interpretation of the constituent

terms in Model 2 is that when holding *Dissatisfaction* at its mean value, a one-unit increase in *1-Year*

Shift decreases the probability that aid will be provided. Additionally, when holding *1-Year Shift* at its

mean, a one-unit increase in *Dissatisfaction* increases the probability that aid will be provided.

The results for the control variables are mixed. There are a few noteworthy results. First, as

expected, $Ln(GDPpc)_b$ is negative and significant in all four logistic models. $Democracy_B$ is positive and

significant in all four models as well, contrary to the expected effect. $Ln(pop)_B$ is positive and

significant in all models, as expected. $Human\ Rights_B$ is consistently negative and significant, the

opposite direction as expected. While puzzling, this result is precisely the effect that Uzonyi and

Rider (2017) found, which was also contrary to their expectations. It seems that poor a human rights

record attracts foreign aid donations. The provision of aid is more likely between states in a defense

pact, as expected. The riot variable was dropped from the analysis as a result of predicting success

perfectly. There were no observations in which $Riot_B$ was not equal to one. This was the case even

though, out of the nearly 120 thousand observations in the sample, over 100 thousand are equal to

zero and just over 13 thousand are equal to one. I have no convincing argument for why this is the

case. The other three controls from Uzonyi and Rider's (2017) model are positive and significant, as

expected. The provision of aid was more likely in during the Cold War than after its end.

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Table 6. Logistic Regression Results—The Provision of Foreign Aid.

VARIABLES	1 (>=80% parity)	2 (>=80% parity)	3 (<80% parity)	4 (<80% parity)
1-Year Shift	1.563***	-8.199***	0.670	-11.58
	(0.388)	(2.241)	(1.141)	(8.382)
Dissatisfaction	0.00838***	0.0689***	0.00697	-0.0151
	(0.00141)	(0.0126)	(0.00428)	(0.0530)
Relative Power	-2.119***	-0.921***	-1.966**	-2.310*
	(0.240)	(0.323)	(0.817)	(1.213)
1-Year Shift* Dissatisfaction	.	0.180***	.	0.0778
	.	(0.0598)	.	(0.184)
1-Year Shift*Relative Power	.	20.18***	.	26.64
	.	(5.283)	.	(18.57)
Relative Power*Dissatisfaction	.	-0.138***	.	0.0477
	.	(0.0280)	.	(0.113)
$Ln(gdppc)_B$	-0.808***	-0.829***	-1.487***	-1.476***
	(0.131)	(0.131)	(0.379)	(0.379)
$Democracy_B$	0.0476***	0.0496***	0.0532***	0.0529***
	(0.00164)	(0.00164)	(0.00455)	(0.00454)
$Ln(pop)_B$	0.218***	0.216***	0.240***	0.240***
	(0.00975)	(0.00971)	(0.0397)	(0.0397)
$Human Rights_B$	-0.185***	-0.186***	-0.226***	-0.226***
	(0.00567)	(0.00566)	(0.0162)	(0.0162)
$Trade Dependence_B$	2.010**	2.054**	3.198	3.314
	(0.935)	(0.937)	(3.109)	(3.103)
$Trade Openess_B$	-0.192***	-0.193***	-0.430***	-0.430***
	(0.0149)	(0.0149)	(0.0864)	(0.0864)
$Ln(gddpc)_A$	2.811***	2.809***	3.717***	3.717***
	(0.111)	(0.111)	(0.349)	(0.349)
$Ln(pop)_A$	0.105***	0.106***	0.121***	0.121***
	(0.00911)	(0.00913)	(0.0380)	(0.0380)
Colony	0.882***	0.873***	-0.0187	-0.0147
	(0.130)	(0.130)	(0.304)	(0.307)
Defense	0.236***	0.236***	0.594***	0.592***
	(0.0372)	(0.0370)	(0.0926)	(0.0928)
Ln(distance)	0.0673***	0.0678***	0.0213	0.0211
	(0.00744)	(0.00748)	(0.0158)	(0.0158)
Post-Cold War	-0.122***	-0.124***	-0.129**	-0.130**
	(0.0180)	(0.0180)	(0.0568)	(0.0569)
Rivalry	0.0282	0.00662	-0.0664	-0.0637
	(0.196)	(0.202)	(0.333)	(0.334)
Riot	.	.	.	.
	.	.	.	.
Assassination	4.449***	4.447***	3.770***	3.771***
	(0.117)	(0.117)	(0.251)	(0.251)
Civil War	4.171***	4.170***	3.891***	3.881***
	(0.120)	(0.120)	(0.244)	(0.245)
Irregular Turnover	0.467***	0.468***	0.480***	0.479***
	(0.0258)	(0.0258)	(0.0734)	(0.0736)
Aid Year	-0.607***	-0.606***	-0.599***	-0.599***
	(0.0118)	(0.0118)	(0.0362)	(0.0362)

Aid Year^2	0.0649***	0.0647***	0.0672***	0.0673***
	(0.00193)	(0.00193)	(0.00646)	(0.00646)
Aid Year^3	-0.00186***	-0.00185***	-0.00210***	-0.00210***
	(7.49e-05)	(7.49e-05)	(0.000269)	(0.000269)
Constant	-6.736***	-7.215***	-7.326***	-7.181***
	(0.408)	(0.418)	(0.911)	(1.019)
Observations	119,429	119,429	16,854	16,854

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

To provide a more intuitive interpretation of the interaction term in Model 2, predicted

marginal effects are provided in Figure 6. The graph on the left illustrates the marginal effect of

moving from the minimum value of *1-Year Shift* to its maximum value while holding *Dissatisfaction*

and all other variables at their means. The most obvious insight from this graph is that as *1-Year Shift*

increases, the probability that foreign aid is provided also increases. Importantly, moving from the

minimum to maximum value of *1-Year Shift* is significant at the 95 percent level. Although

interesting, I am not particularly interested in the effect of shifting power among averagely

dissatisfied state dyads. The true theoretical effect of interest is how shifting power affects the

probability of aid in the most dissatisfied dyads. This ties directly back to the expectation of power

transition theory that interstate conflict is most likely between states that are near parity and that are

highly dissatisfied with the status quo.

Figure 6. Marginal Effects of *1-Year Shift* on the Probability of Aid.
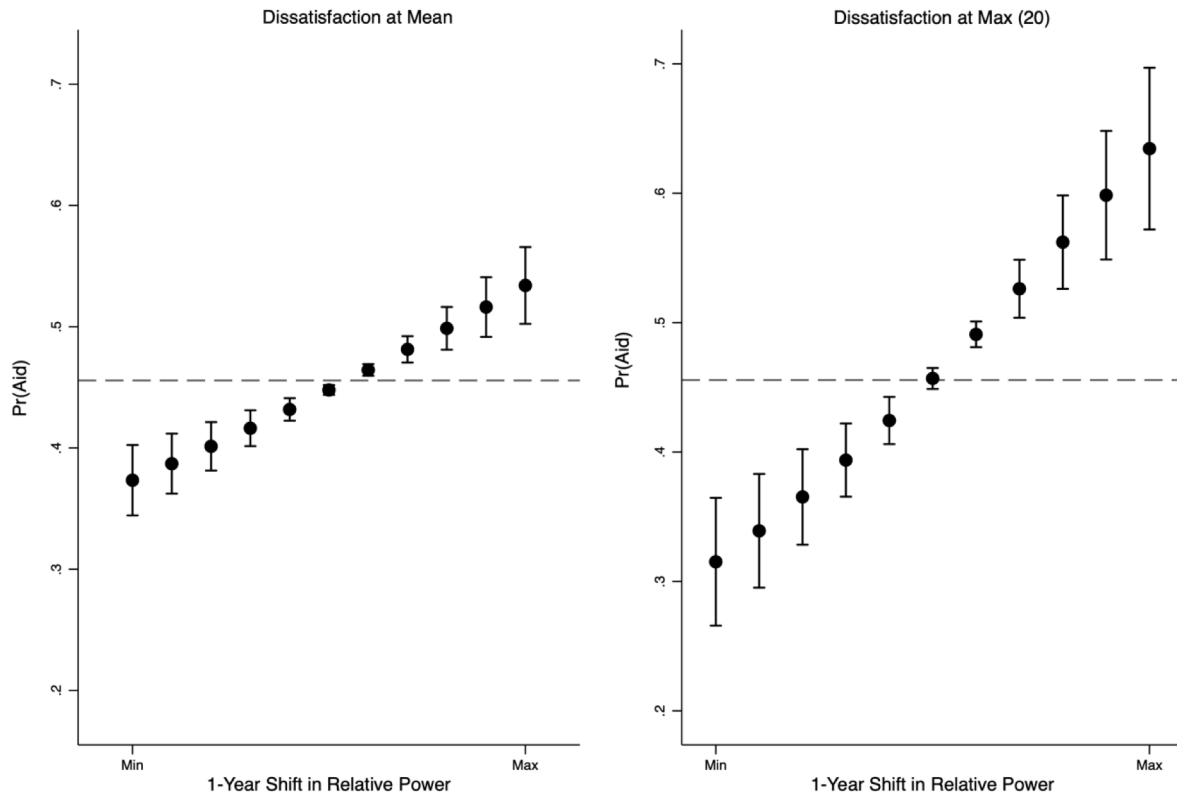
*Dashed line is equal to the probability of Aid when all variables are held at their mean values.

The graph on the right of Figure 6 illustrates the marginal effect of moving from the minimum value of *1-Year Shift* to its maximum value while holding *Dissatisfaction* at its maximum value (most dissatisfied) and all other variables at their means. Again, it is immediately apparent that as *1-Year Shift* increases in magnitude the probability of aid also increases. Again, moving from the minimum value of *1-Year Shift* to the maximum value is statistically significant at the 95 percent level. By comparing the two graphs in Figure 6, we can see that the marginal effect of this move is also significantly larger in the most dissatisfied state dyads then it is in those that are merely averagely dissatisfied. In the most dissatisfied dyads, a shift equal to the maximum value of *1-Year Shift* is associated with approximately a 63 percent probability that aid will be provided to the weaker but increasing state. In averagely dissatisfied dyads this probability is approximately 53 percent. This

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represents a statistically significant 16 percent decrease in the probability that aid will be given to the weaker but growing state.

We now turn our attention to the analysis of the amount of aid donors provide to their relatively weaker counterparts. Table 7 reports the OLS regression results for the Aid Amount analysis. As with the Aid analysis, the first two models in Table 7 were performed on the near-parity subset, while the second two were performed on the subset consisting of dyads that are less than 80 percent of parity. The key independent variables and control variables are identical to those included in the Aid analysis.

Model 5 reports the coefficients for the baseline model, which omits all three interaction terms. We can see that *1-Year Shift* is significant at the 95 percent level but is negative, contrary to the expectations of H1$_b$. Likewise, Dissatisfaction is in the opposite direction hypothesized and fails to reach significance. Relative Power is in the expected direction but is not significant. These last two results are contrary to H2$_b$ and H3$_b$, respectively.

Model 6 reports the coefficients for the full model, including all control variables. From this model we can see that the interaction of *1-Year Shift* and *Dissatisfaction* is negative and significant at the 99 percent level, providing tentative support for *H2d.* The effect of shifting power on the amount of aid provided by a donor state is conditional on the level of status quo dissatisfaction in a state dyad. When holding Dissatisfaction at its mean, a one-unit change in *1-Year Shift* is associated with a 0.5 percent decline in the amount of aid being provided by the more powerful donor state. While this seems to contradict H2d, this is an incorrect conclusion at which to arrive based on the reported coefficients. The sample mean of *Dissatisfaction* is 8, which qualifies as a relatively satisfied dyad. Recall that the variable ranges from zero to twenty with twenty being the most dissatisfied and zero being the most satisfied. It is not surprising, then, that a *1-Year Shift* has a negative effect when *Dissatisfaction* is held at its mean. To truly test whether the relationship between shifting power and

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status quo dissatisfaction is as hypothesized, we must rely on an analysis of marginal effects. Before moving to the substantive results, however, it must also be pointed out that the results in Table 7 provide support for *H3$_d$*. This is the main effect of interest in the *Aid Amount* analysis. Comparing models 6 and 8, we can see that the interaction of *1-Year Shift* and *Dissatisfaction* is significant in the greater than or equal to 80 percent of parity subset but not in the less than 80 percent of parity subset. This confirms the expectation that the relationship between shifting power and the amount of aid a donor provides is conditional on the level of status quo dissatisfaction and the degree of power parity existent in the dyad. Were the interaction term to be significant in Model 8, this hypothesis would be rejected.

Table 7. OLS Regression Results—Aid Amount.

VARIABLES	5 (>=80% parity)	6 (>=80% parity)	7 (<80% parity)	8 (<80% parity)
1-Year Shift	-0.511**	13.14***	0.686	8.068
	(0.243)	(1.487)	(1.070)	(8.071)
Dissatisfaction	-0.000301	-0.0322***	-0.00841***	0.00823
	(0.000868)	(0.00721)	(0.00220)	(0.0595)
Relative Power	-0.0412	-0.725***	-8.974***	-8.732***
	(0.178)	(0.229)	(1.086)	(1.458)
1-Year Shift* Dissatisfaction	.	-0.114***	.	-0.0433
	.	(0.0384)	.	(0.199)
1-Year Shift*Relative Power	.	-30.85***	.	-16.19
	.	(3.296)	.	(17.81)
Relative Power*Dissatisfaction	.	0.0721***	.	-0.0358
	.	(0.0156)	.	(0.125)
Ln(gdppc)B	-1.465***	-1.443***	0.204	0.204
	(0.0869)	(0.0854)	(0.213)	(0.213)
DemocracyB	-8.16e-05	-0.00137	-0.00609**	-0.00595**
	(0.00115)	(0.00127)	(0.00265)	(0.00291)
Ln(pop)B	-0.0408***	-0.0395***	0.302***	0.302***
	(0.00547)	(0.00545)	(0.0353)	(0.0312)
Human RightsB	0.00670	0.00805	-0.0915***	-0.0913***
	(0.00462)	(0.00503)	(0.0118)	(0.0113)
Trade DependenceB	2.325***	2.275***	5.971***	5.936***
	(0.799)	(0.658)	(1.949)	(2.105)
Trade OpenessB	0.0156	0.0176	-0.247***	-0.245***
	(0.0196)	(0.0219)	(0.0409)	(0.0427)
Ln(gddpc)A	3.627***	3.606***	3.648***	3.644***
	(0.0736)	(0.0608)	(0.208)	(0.162)
Ln(pop)A	0.180***	0.178***	0.0302	0.0295
	(0.00534)	(0.00510)	(0.0234)	(0.0207)
Colony	1.474***	1.474***	-0.219	-0.221
	(0.169)	(0.109)	(0.287)	(0.288)
Defense	-0.0694***	-0.0711***	0.381***	0.383***
	(0.0244)	(0.0218)	(0.0735)	(0.0693)
Ln(distance)	0.0298***	0.0290***	0.0489***	0.0490***
	(0.00304)	(0.00305)	(0.00869)	(0.00806)
Post-Cold War	0.457***	0.458***	0.519***	0.520***
	(0.0110)	(0.00915)	(0.0290)	(0.0282)
Rivalry	-0.396***	-0.377***	0.134	0.130
	(0.0396)	(0.0410)	(0.260)	(0.230)
Riot	-0.0298	-0.0305	0.0624	0.0631
	(0.0198)	(0.0210)	(0.0611)	(0.0602)
Assassination	-0.106***	-0.109***	-0.0844	-0.0849
	(0.0295)	(0.0343)	(0.0928)	(0.0813)
Civil War	-0.148***	-0.149***	-0.203***	-0.201***
	(0.0251)	(0.0287)	(0.0783)	(0.0775)
Irregular Turnover	-0.164***	-0.164***	-0.133***	-0.132***
	(0.0147)	(0.0164)	(0.0489)	(0.0507)
IMRaid	-0.168***	-0.175***	0.119***	0.118***

	(0.0106)	(0.0107)	(0.0206)	(0.0207)
Constant	-5.555***	-5.220***	-6.848***	-6.944***
	(0.241)	(0.234)	(0.732)	(0.983)
Observations	119,429	119,429	16,835	16,835
R-squared	0.074	0.075	0.108	0.108

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

The task now turns to providing a more intuitive interpretation of the interaction effect found in Model 6. Figure 7 reports the marginal effects of a change in *1-Year Shift* from its minimum to maximum values while holding *Dissatisfaction* at its mean and maximum values. Immediately apparent form both graphs is that the effect of *1-Year Shift* is in the opposite direction as expected. Therefore, while H2d and H3d are supported in that the relationship between shifting power and the amount of aid a donor gives is conditional on the level of status quo dissatisfaction and the degree of parity in a state dyad, the effect of rapidly shifting power is in the opposite direction than expected. Instead of increasing the amount of aid a donor gives, more rapid increases in relative power, on the part of the weaker recipient, decrease the amount of aid the donor provides. It is interesting that aid is more likely to be provided in these dyadic conditions, but the amount given declines as the magnitude of the shift and the level of status quo dissatisfaction increase. This can be seen by the steepness of the slope of the line in the graph on the right versus the graph on the left. This finding implies that donors provide aid in hopes of deterring costly demands by the encroaching state to alter the status quo but give less to those that are more dissatisfied and encroaching at a more rapid pace, when provided. It is clear that the marginal effect of *1-Year Shift* and the associated decline in aid is significant at the 95 percent level in both graphs. The decline in the graph on the right approximates to a 215 percent decline in the amount of aid provided to a weaker recipient.

Figure 7. Marginal Effects of *1-Year Shift* on the Amount of Foreign Aid Provided.
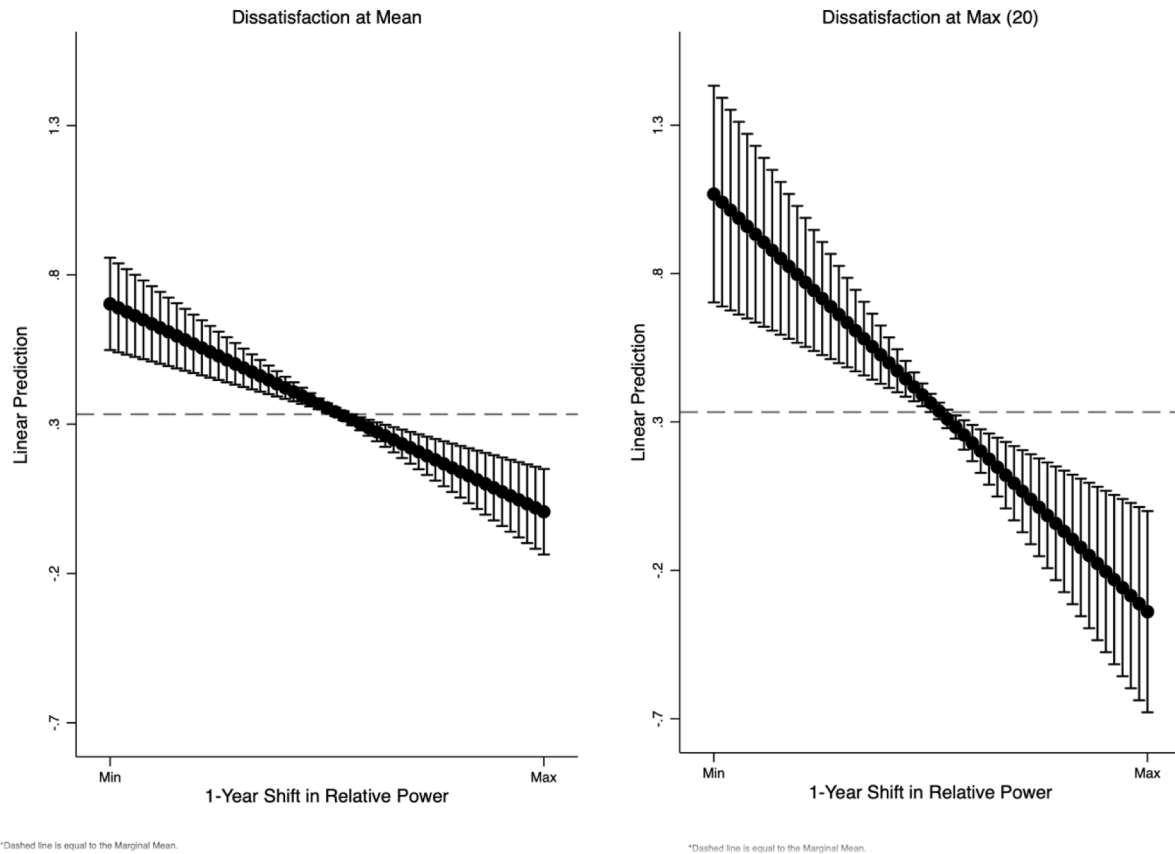
Conclusion

In this chapter, it was hypothesized that rapid shifts in relative state power, in favor of the weaker state in a dyad, increases the probability that the more powerful dyadic counterpart will provide the former with foreign aid. Additionally, it was hypothesized that this relationship is conditional on the level of status quo dissatisfaction and the degree of power parity between the dyad. The same conditions were also hypothesized to increase the amount of aid that the more powerful donor provides. The underlying argument is that the more powerful but declining state will use non-military foreign aid in an attempt to make the prospect of losing it too costly for the encroaching, weaker power. If successful, the high cost associated with the forfeiture or partial redaction of the aid being received will reduce the likelihood that the recipient will make demands to

alter the status quo distribution of benefits that are costly enough to cause the donor to stop providing said aid.

The empirical results provide support for the expectations concerning the probability that aid will be provided but are counter to the expectations concerning the amount of aid the donor gives. In a the most dissatisfied dyads that are at least 80 percent of power parity, a maximum one-year increase in relative power by the weaker state increases the probability of aid by 15 percent, from a .53 to a .63 probability. Importantly, this increase in probability is significant at the 95 percent level. On the other hand, these same conditions reduce the amount of aid the donor provides to a weaker recipient by approximately 215 percent.

The findings, while not completely in line with my theoretical expectations, are nonetheless enlightening. I have shown that shifting power, status quo dissatisfaction, and power parity are important factors to consider when analyzing foreign aid. Even with the battery of known determinants of aid, the interaction of these three variables significantly affects the likelihood that a state will receive aid and how much they will receive. These findings provide additional insight into how states use economic coercion to manipulate the behavior of their counterparts in the international system. According to empirical results, we can expect the United States to decrease its provision of aid to China and other rapidly growing, dissatisfied states in the future and begin providing aid to those not already receiving it. Overall, it is apparent that foreign aid is, indeed, used as a tool of coercive foreign policy that concerns over the dyadic status quo affect the way it is used. Additionally, the results in this chapter further bolster the claim that power transition theory need not simply be a theory of war. It can, at the least, be applied to economic conflict.

CHAPTER VII

CONCLUSION

This dissertation set out to examine whether, and how, shifting power distributions, status quo evaluations, and power parity work together to affect the use of economic foreign policy. The interaction of these variables has long been argued to be positively correlated with the outbreak of major-power war but has never been considered in context of other more common foreign policy responses. Relying on the logic of foreign policy substitution, I have argued that it is reasonable to expect that when the combination of these factors does not lead to war that it may lead other, less costly, manifestations of foreign policy. Of specific interest to this dissertation are those policy tools that fall under the economic category—namely, economic sanctions, bilateral trade, and foreign aid. Employing the logic of bargaining theory, I explained how each policy tool possesses its own bargaining range, identical in function to the bargaining range of war, proffered by Fearon (1995). When either the demand of the growing revisionist state to alter the status quo, or the demand of the status quo state to maintain it, falls outside of the agreements that the either state prefers to enacting one or more of these policies, the incentive to do is present. I argued that this can lead to the imposition of economic sanctions, reductions in bilateral trade, and to the provision of foreign aid.

The empirical results offer partial support for my theoretical expectations. As expected, the effect of shifting power on the probability of economic sanctions imposition, the probability of foreign aid provision, and bilateral trade flows is conditional on the degree of status quo

dissatisfaction in a state dyad. Among dyads that are near power parity, rapid shifts in favor of a dissatisfied, weaker state in the dyad significantly increase the probability of sanctions imposition and of foreign aid provision, and significantly decrease bilateral trade. Contrary to expectations, these same dyadic conditions decrease the amount of foreign aid a donor provides.

These findings provide support for the argument that the conditions that lead to major-power war also lead states to enact coercive economic foreign policies. The result for the amount of foreign aid donors provide is the only outcome for which the conditional effects of status quo dissatisfaction, power parity, and shifting relative power did not behave as expected. However, the effect was statistically significant but in the opposite direction of what was hypothesized.

The empirical results vindicate the argument of foreign policy substation that similar stimuli can lead to different policy outcomes at different times, the word "similar" being an important and applicable caveat. This is certainly illustrated by each of the empirical chapters of this study. Relatedly, also receiving validation, is the argument that the key tenets of power transition theory can be applied to foreign policy options that fall short of war. The application of power transition's key variables to economic foreign policy is supported by the empirical results. I would argue that these variables, and their interaction, deserve attention in any analysis that is concerned with the security implications of changing power distributions in the international system, whether said analysis is concerned with military, economic, or diplomatic foreign policy. Additionally, any study of armed conflict would be better served by identifying possible substitutes to military action and incorporate these into the empirical analysis.

Going forward, the underlying theory needs fine-tuning—this is obvious. It is understood that there are plenty of holes to be poked in this study. However, this is a first attempt at formulating a new theory of foreign policy, so there is naturally much room for improvement. In this respect, the scope conditions need to be refined. While it is not expected that the theory only

applies to the dyadic configurations put forward by power transition theory, restricting the scope to these conditions provide a good starting point for further refinement. One problem with this approach, however, is that these dyadic configurations are rare—thus, not being ideal for quantitative analysis. For example, in power transition theory's purest form, there are only a handful of applicable dyads over the last 500 years (Kegley and Raymond 1994). Lemke's (2000) regional approach may be a better, more quantitative-friendly, alternative. However, even in light of some obvious room for improvement, the foundational theoretical framework laid out in this dissertation provides a solid base from which to build a fruitful research agenda.

Limitations and Future Research

One of the limitations of each empirical chapter are the relative sample sizes in each subset of data. The subsets that include dyads that are at least 80 percent of power parity are much larger than those consisting of dyads that are less than 80 percent. Although none of the samples is small in the absolute context, the latter are much smaller relative to the former. For example, in the bilateral trade analysis, the near-parity subset contains over 21 thousand observations while the less than parity contains just over 8 thousand. The relative disparity in sample sizes may have some impact on significance levels of the variables in each subset's respective empirical models. This is undoubtedly a direct result of the scope conditions. After removing the restrictions that the dyads under consideration must consist of at least one major-power or be contiguous, the sample size for the near-parity subset increases to include over 91 thousand observations, while the less than parity sample increases to over 89 thousand observations. Perhaps the significance levels would increase if the sample size on the latter subset was closer in size with the former. This pattern of asymmetric sample sizes is true for all three empirical chapters.

Another limitation concerning sample size has to do with the possibility of type I errors, or false-positives. This is always a consideration when dealing with inferential statistics and a large

sample size. The analysis of foreign aid includes the largest sample out of the three empirical chapters of this dissertation. The reason for its relatively large size compared to the other analyses is its directed dyad-year structure. There are nearly 120 thousand observations in models 1 and 2 of Table 6. When the sample contains this many observations, it may be the case that insignificant effects provide more insight than those that successfully achieve the traditional accepted level of statistical significance. In Model 2 of Table 6, the only statistically insignificant effect is the coefficient for state rivalry. The insignificant result likely indicates that power parity has a greater effect on the provision of non-military aid than rivalry, as the coefficient for rivalry is statistically significant in in models 3 and 4, which consist of dyads that are less than 80 percent of power parity. In the near-parity subset, the effect of power equivalence washes out the effect of rivalry. This is an interesting insight gleaned from an insignificant result.

Another limitation of this dissertation is theoretically based. Specifically, how to best define the scope conditions. While I believe the dyadic hierarchy and relevant dyad explanations I offer in the study are valid, there is always room for improvement. As the study is based in the logic of power transition theory, perhaps redefining the scope conditions to those proffered directly by studies under its purview would be an appropriate alteration. Power transition theory is concerned with major power war at the system and regional level. In this study, I have not followed suite. The decision not to do so was not made without careful consideration, however. I strongly believe the logic of power transition theory applies to more than the dual realm of the international system and regional hierarchies. In fact, if logic justifies the theory's application to the regional level, I see no valid reason for why the same logic not to justify its application to the dyadic level. Hierarchical relationships exist at all three levels of analysis. That said, it may be the case that my theory would possess greater validity if I were to adjust the scope conditions to be in line with those already established by prior studies.

Another possible limitation, or possible flaw, of this study is that the theory attempts to apply a theory of major-power war to a theory of economic coercion, specifically, and foreign policy generally. I understand why this approach may be critiqued as a classic case of comparing apples to bananas. My response to this critique is that this has been an attempt to explain certain determinants of interstate behavior by drawing on existing theories of International Relations. Perhaps the counter response would be that this study should draw on different existing theories. This may, indeed, be a valid critique. At this time, however, I do am not able to identify what these other theories might be.

I view the limitations above to be the most probable. There are others, to be sure, but these present the largest challenge. That said, where there exists challenges there also exists opportunities for growth and progress. Each of these limitations provides an avenue for that growth and progress. Out of these, I believe the one that is most promising is the alteration of the scope conditions. In future research, the scope conditions could be altered to consist of both system and regional hierarchies. Relatedly, an analysis of how the three hierarchical structures interact to affect the foreign policy decisions of states provides an interesting avenue for future research. For example, how does the composition of the international hierarchy affect the composition of its regional counterparts? How does the composition of regional hierarchies affect the foreign policy decisions of dyadic hierarchies? Both of these are interesting questions that are worth pursuing. Another obvious avenue for future research would be to study how shifting power, status quo dissatisfaction, and power parity affect the use of armed conflict. This has been done at the regional and system levels but has not been applied to state dyads in the way economic foreign policy was in this study.

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APPENDIX I

Table 8. Rare Events Logistic Regression Results for Economic Sanctions Imposition with Extended Power Shift Variables and Interactions—Near Parity

VARIABLES	(1) >=80% parity	(2) >=80% parity	(3) >=80% parity	(4) >=80% parity
Dissatisfaction	0.0815***	0.0924***	0.0536	-0.0388
	(0.0223)	(0.0298)	(0.0475)	(0.0366)
Relative Power	-0.268***	-0.310***	-0.349**	-0.143
	(0.0640)	(0.0873)	(0.172)	(0.108)
Ln(trade)	-0.0134	-0.0166	-0.0456	-0.120***
	(0.0256)	(0.0305)	(0.0426)	(0.0294)
Allies	0.704**	0.808**	1.289**	1.687*
	(0.358)	(0.405)	(0.635)	(1.008)
Ln(distance)	0.100	0.0203	-0.0610	0.187
	(0.124)	(0.106)	(0.138)	(0.136)
US	2.765***	3.329***	4.482**	1.332
	(0.501)	(0.626)	(1.780)	(1.235)
Year	-0.0170	-0.201**	-0.0313	0.287***
	(0.0374)	(0.0938)	(0.197)	(0.0860)
Sanction Year	0.346	0.927	16.94	9.117***
	(0.435)	(0.625)	(18.85)	(1.510)
5-Year Shift	5.160	.	.	.
	(5.826)	.	.	.
10-Year Shift	.	5.906	.	.
	.	(4.874)	.	.
15-Year Shift	.	.	9.855*	.
	.	.	(5.272)	.
20-Year Shift	.	.	.	4.946
	.	.	.	(8.002)
5-Year Shift*Dissat.	-0.147	.	.	.
	(0.435)	.	.	.
10-Year Shift*Dissat.	.	-0.0604	.	.
	.	(0.377)	.	.
15-Year Shift*Dissat.	.	.	0.163	.
	.	.	(0.359)	.
20-Year Shift*Dissat.	.	.	.	-0.295
	.	.	.	(0.684)
Constant	26.53	393.5**	19.60	-585.7***
	(74.91)	(187.1)	(408.6)	(170.6)
Observations	10,977	6,953	3,505	1,619

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Table 9. Rare Events Logistic Regression Results for Economic Sanctions Imposition with Extended Power Shift Variables and Interactions—No Parity

VARIABLES	(1) >80% parity	(2) >80% parity	(3) >80% parity
Dissatisfaction	0.0907	-0.0473	0.305***
	(0.0621)	(0.0682)	(0.0878)
Relative Power	-0.144	0.205	1.493***
	(0.267)	(0.229)	(0.132)
Ln(Trade)	-0.268***	-0.166***	0.541***
	(0.0604)	(0.0399)	(0.0735)
Allies	-1.510	-0.726	3.815***
	(1.950)	(2.172)	(1.016)
Ln(distance)	-0.174	-0.0491	2.742***
	(0.125)	(0.110)	(0.189)
US	6.027**	3.408	-1.348
	(2.353)	(2.386)	(2.814)
Year	151.4***	114.3***	-323.4***
	(0.0124)	(0.00995)	(0.0110)
Sanction Year	-9.442	17.84	1.470
	(0)	(0)	(0)
5-Year Shift	16.65**	.	.
	(7.945)	.	.
5-Year Shift*Dissat.	-3.721***	.	.
	(0.674)	.	.
10-Year Shift	.	5.009	.
	.	(3.061)	.
10-Year Shift*Dissat.	.	0.372	.
	.	(0.479)	.
15-Year Shift	.	.	17.26***
	.	.	(5.293)
15-Year Shift*Dissat.	.	.	6.526***
	.	.	(0.203)
20-Year Shift	.	.	.
	.	.	.
20-Year Shift*Dissat.	.	.	.
	.	.	.
Constant	-299,475	-227,155	650,545
	(0)	(0)	(0)
Observations	3,876	2,380	1,217

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

APPENDIX II

Table 10. Fixed Effects OLS Regression Results for Logged Bilateral Trade with Longer Durations of Shifting Power—Near Parity

VARIABLES	(1) >=80% parity	(2) >=80% parity	(3) >=80% parity	(4) >=80% parity
Ln(Distance)	-0.00329	-0.00936	-0.00464	-0.00701
	(0.0111)	(0.00572)	(0.00564)	(0.00565)
Ln(GDP)a	0.0174	-0.0102	0.00189	0.00261
	(0.0195)	(0.0194)	(0.0195)	(0.0190)
Ln(GDP)b	0.0218	0.0272	0.0204	0.0227
	(0.0215)	(0.0213)	(0.0211)	(0.0209)
Ln(pop)a	5.944***	5.821***	5.520***	5.707***
	(0.610)	(0.581)	(0.590)	(0.597)
Ln(pop)b	6.752***	5.923***	6.513***	6.601***
	(0.386)	(0.382)	(0.394)	(0.393)
Major Power A	-3.638***	-3.809***	-2.808***	-2.275***
	(0.553)	(0.553)	(0.542)	(0.545)
Major Power B	0.439	-0.00896	0.155	0.253
	(0.822)	(0.720)	(0.728)	(0.804)
Relative Power	-6.826**	-9.811***	-7.628**	-6.749**
	(3.096)	(2.978)	(3.072)	(3.062)
Dissatisfaction	0.0168	0.0129	0.0113	0.0115
	(0.0140)	(0.0139)	(0.0142)	(0.0141)
1-Year Shift	-7.543***	.	.	.
	(1.732)	.	.	.
1-Year Shift*Dissat.	-0.510***	.	.	.
	(0.149)	.	.	.
5-Year Shift	.	6.199**	.	.
	.	(2.745)	.	.
5-Year Shift*Dissat.	.	0.250	.	.
	.	(0.264)	.	.
15-Year Shift	.	.	-3.544*	.
	.	.	(2.112)	.
15-Year Shift* Dissat.	.	.	-0.503**	.
	.	.	(0.226)	.
20-Year Shift	.	.	.	-6.427***
	.	.	.	(2.033)
20-Year Shift* Dissat.	.	.	.	-0.697***
	.	.	.	(0.219)
Constant	-121.1***	-112.6***	-114.6***	-117.2***
	(4.977)	(4.850)	(4.939)	(4.993)
Observations	91,797	99,478	99,793	100,639
R-squared	0.132	0.128	0.134	0.137
Number of dyadcode	4,223	4,255	4,278	4,272

Robust standard errors in parentheses
*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table 11. Fixed Effects OLS Regression Results for Logged Bilateral Trade with Longer Durations of Shifting Power—No Parity

VARIABLES	(1) >80% parity	(2) >80% parity)	(3) >80% parity	(4) >80% parity
Ln(Distance)	-0.0191	-0.00108	0.00747	0.00127
	(0.0148)	(0.00973)	(0.00958)	(0.0104)
Ln(GDP)a	0.0343**	0.0356**	0.0224	0.0255
	(0.0165)	(0.0154)	(0.0155)	(0.0156)
Ln(GDP)b	-0.0264*	-0.0337**	-0.0270*	-0.0291*
	(0.0159)	(0.0151)	(0.0153)	(0.0154)
Ln(pop)a	6.170***	6.151***	6.414***	6.145***
	(0.503)	(0.480)	(0.485)	(0.486)
Ln(pop)b	6.893***	6.518***	6.507***	6.751***
	(0.459)	(0.444)	(0.449)	(0.452)
Major Power A	-3.333***	-3.156***	-3.154***	-3.105***
	(0.635)	(0.703)	(0.721)	(0.734)
Major Power B	-1.897**	-1.907**	-2.032***	-2.095***
	(0.788)	(0.750)	(0.783)	(0.787)
Relative Power	-0.350	0.106	-0.0728	0.171
	(0.431)	(0.411)	(0.413)	(0.408)
Dissatisfaction	-0.0210	-0.0321**	-0.0294**	-0.0310**
	(0.0152)	(0.0141)	(0.0143)	(0.0144)
1-Year Shift	-8.065**	.	.	.
	(3.515)	.	.	.
1-Year Shift * Dissat.	0.191	.	.	.
	(0.254)	.	.	.
5-Year Shift	.	-11.97*	.	.
	.	(7.244)	.	.
5-Year Shift* Dissat.	.	1.457**	.	.
	.	(0.644)	.	.
15-Year Shift	.	.	-6.769	.
	.	.	(7.271)	.
15-Year Shift* Dissat.	.	.	0.538	.
	.	.	(0.585)	.
20-Year Shift	.	.	.	-6.853
	.	.	.	(6.855)
20-Year Shift* Dissat.	.	.	.	0.486
	.	.	.	(0.527)
Constant	-124.6***	-120.1***	-122.7***	-122.2***
	(3.340)	(3.255)	(3.219)	(3.229)
Observations	88,131	98,860	99,120	99,430
R-squared	0.139	0.139	0.146	0.146
Number of dyadcode	6,055	6,363	6,466	6,424

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

APPENDIX III

Table 12. Logistic Regression Results for The Provision of Foreign Aid and 5-Year Shifts in Relative Power—For Near Parity and No Parity Dyads

VARIABLES	(1) >=80% parity	(2) >=80% parity	(3) <80% parity	(4) <80% parity
5-Year Shift	-2.771***	-0.255	-11.97***	33.72
	(0.938)	(4.735)	(3.422)	(26.52)
Dissatisfaction	0.0191***	0.0650***	0.00430	-0.00921
	(0.00402)	(0.0208)	(0.00455)	(0.0530)
Relative Power	-0.708	0.282	-1.925**	-2.160*
	(0.437)	(0.611)	(0.809)	(1.211)
5-Year Shift* Dissat.	.	0.281*	.	0.326
	.	(0.146)	.	(0.457)
5-Year Shift* Relative Power	.	-12.53	.	-117.0*
	.	(12.46)	.	(64.97)
Relative Power * Dissat.	.	-0.110**	.	0.0290
	.	(0.0479)	.	(0.113)
Rivalry	0.370	0.369	-0.167	-0.147
	(0.397)	(0.401)	(0.363)	(0.363)
Assassination	3.773***	3.779***	3.798***	3.805***
	(0.242)	(0.243)	(0.266)	(0.267)
Civil War	4.055***	4.055***	3.938***	3.940***
	(0.251)	(0.251)	(0.260)	(0.260)
Irregular Turnover	0.480***	0.475***	0.542***	0.539***
	(0.0541)	(0.0542)	(0.0767)	(0.0769)
$Ln(gdppc)_B$	-2.134***	-2.160***	-1.764***	-1.755***
	(0.290)	(0.292)	(0.399)	(0.399)
$Polit_{yB}$	0.0481***	0.0497***	0.0540***	0.0537***
	(0.00417)	(0.00420)	(0.00480)	(0.00478)
$Ln(pop)_B$	0.0533*	0.0520*	0.220***	0.223***
	(0.0309)	(0.0310)	(0.0411)	(0.0411)
physint2	-0.197***	-0.199***	-0.219***	-0.219***
	(0.0126)	(0.0126)	(0.0169)	(0.0170)
$Trade Dependence_B$	1.567	1.617	3.812	3.893
	(1.115)	(1.114)	(3.001)	(2.994)
$Trade Openess_B$	-0.249***	-0.252***	-0.424***	-0.422***
	(0.0497)	(0.0497)	(0.0889)	(0.0889)
$Ln(gdppc)_A$	7.729***	7.748***	4.032***	4.040***
	(0.338)	(0.339)	(0.363)	(0.364)
$Ln(pop)_A$	0.362***	0.361***	0.144***	0.142***
	(0.0324)	(0.0326)	(0.0394)	(0.0394)
Colony	0.911***	0.901***	-0.00546	-0.0302
	(0.155)	(0.155)	(0.303)	(0.304)
Defense	0.411***	0.415***	0.555***	0.556***
	(0.0984)	(0.0973)	(0.0961)	(0.0964)
Ln(distance)	0.0313*	0.0309*	0.0174	0.0169

	(0.0175)	(0.0176)	(0.0160)	(0.0161)
Post-Cold War	0.118***	0.117***	-0.126**	-0.122**
	(0.0388)	(0.0387)	(0.0590)	(0.0590)
Aid Year	-0.726***	-0.725***	-0.618***	-0.618***
	(0.0270)	(0.0270)	(0.0388)	(0.0389)
Aid Year^2	0.0803***	0.0802***	0.0703***	0.0703***
	(0.00439)	(0.00439)	(0.00697)	(0.00698)
Aid Year^3	-0.00235***	-0.00234***	-0.00222***	-0.00222***
	(0.000173)	(0.000172)	(0.000293)	(0.000293)
Constant	-14.54***	-14.90***	-7.431***	-7.370***
	(1.027)	(1.033)	(0.947)	(1.056)
Observations	28,475	28,475	15,558	15,558

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 13. Logistic Regression Results for The Provision of Foreign Aid and 10-Year Shifts in Relative Power—For Near Parity and No Parity Dyads

VARIABLES	(1) >=80% parity	(2) >=80% parity	(3) <80% parity	(4) <80% parity
10-Year Shift	-2.550***	2.084	-2.150	-25.57
	(0.957)	(4.580)	(3.182)	(23.99)
Dissatisfaction	0.0198***	0.0669***	0.00631	-0.0267
	(0.00402)	(0.0207)	(0.00454)	(0.0519)
Relative Power	-0.668	0.338	-1.965**	-2.541**
	(0.434)	(0.608)	(0.798)	(1.170)
10-Year Shift* Dissat.	.	-0.0220	.	-0.354
	.	(0.155)	.	(0.430)
10-Year Shift*Relative Power	.	-12.73	.	62.73
	.	(11.95)	.	(57.59)
Relative Power* Dissat.	.	-0.113**	.	0.0712
	.	(0.0476)	.	(0.111)
Rivalry	0.347	0.343	-0.210	-0.231
	(0.412)	(0.415)	(0.330)	(0.329)
Assassination	3.597***	3.599***	3.624***	3.622***
	(0.233)	(0.234)	(0.253)	(0.253)
Civil War	3.865***	3.864***	3.737***	3.734***
	(0.241)	(0.241)	(0.244)	(0.244)
Irregular Turnover	0.445***	0.441***	0.512***	0.514***
	(0.0530)	(0.0531)	(0.0764)	(0.0764)
$Ln(gdppc)_B$	-2.220***	-2.251***	-1.680***	-1.665***
	(0.290)	(0.291)	(0.397)	(0.397)
PolityB	0.0477***	0.0492***	0.0546***	0.0542***
	(0.00421)	(0.00424)	(0.00482)	(0.00481)
$Ln(pop)_B$	0.0508*	0.0498	0.227***	0.226***
	(0.0306)	(0.0307)	(0.0418)	(0.0418)
physint2	-0.196***	-0.197***	-0.222***	-0.223***
	(0.0124)	(0.0124)	(0.0167)	(0.0167)
Trade Dependence$_B$	1.667	1.729	3.055	3.015
	(1.149)	(1.156)	(3.117)	(3.160)
Trade Openess$_B$	-0.249***	-0.248***	-0.414***	-0.418***
	(0.0497)	(0.0497)	(0.0857)	(0.0858)
$Ln(gdppc)_A$	7.683***	7.695***	3.943***	3.936***
	(0.335)	(0.336)	(0.364)	(0.364)
$Ln(pop)_A$	0.350***	0.348***	0.131***	0.132***
	(0.0319)	(0.0321)	(0.0397)	(0.0398)
Colony	0.916***	0.914***	-0.00575	0.00871
	(0.155)	(0.155)	(0.305)	(0.315)
Defense	0.440***	0.443***	0.544***	0.542***
	(0.0982)	(0.0973)	(0.0970)	(0.0972)
Ln(distance)	0.0267	0.0270	0.0124	0.0120
	(0.0178)	(0.0179)	(0.0162)	(0.0162)
Post-Cold War	0.117***	0.111***	-0.117**	-0.118**
	(0.0392)	(0.0394)	(0.0589)	(0.0589)
Aid Year	-0.709***	-0.707***	-0.616***	-0.615***

	(0.0269)	(0.0269)	(0.0395)	(0.0395)
Aid Year^2	0.0783***	0.0780***	0.0713***	0.0712***
	(0.00439)	(0.00439)	(0.00726)	(0.00726)
Aid Year^3	-0.00229***	-0.00228***	-0.00229***	-0.00229***
	(0.000172)	(0.000172)	(0.000311)	(0.000311)
Constant	-14.08***	-14.42***	-7.270***	-7.013***
	(1.019)	(1.023)	(0.959)	(1.056)
Observations	28,189	28,189	15,482	15,482

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 14. Logistic Regression Results for The Provision of Foreign Aid and 15-Year Shifts in Relative Power—For Near Parity and No Parity Dyads

VARIABLES	(1) >=80% parity	(2) >=80% parity	(3) <80% parity	(4) <80% parity
15-Year Shift	-1.898**	3.658	-2.762	4.612
	(0.928)	(5.031)	(2.916)	(23.08)
Dissatisfaction	0.0196***	0.0648***	0.00725	-0.0160
	(0.00408)	(0.0208)	(0.00454)	(0.0513)
Relative Power	-0.653	0.350	-1.893**	-2.339**
	(0.430)	(0.606)	(0.787)	(1.174)
15-Year Shift* Dissat.	.	0.0997	.	-0.209
	.	(0.143)	.	(0.401)
15-Year Shift*Relative Power	.	-17.18	.	-14.25
	.	(12.91)	.	(54.08)
Relative Power* Dissat.	.	-0.108**	.	0.0502
	.	(0.0478)	.	(0.109)
Rivalry	0.354	0.337	-0.225	-0.221
	(0.417)	(0.424)	(0.353)	(0.352)
Assassination	3.700***	3.703***	3.705***	3.705***
	(0.233)	(0.233)	(0.252)	(0.252)
Civil War	3.996***	3.995***	3.781***	3.780***
	(0.244)	(0.244)	(0.246)	(0.246)
Irregular Turnover	0.480***	0.476***	0.516***	0.516***
	(0.0532)	(0.0532)	(0.0767)	(0.0767)
$Ln(gdppc)_B$	-2.015***	-2.036***	-1.540***	-1.527***
	(0.287)	(0.288)	(0.394)	(0.394)
PolityB	0.0459***	0.0473***	0.0527***	0.0524***
	(0.00424)	(0.00426)	(0.00483)	(0.00482)
$Ln(pop)_B$	0.0699**	0.0672**	0.233***	0.233***
	(0.0302)	(0.0303)	(0.0411)	(0.0411)
physint2	-0.195***	-0.196***	-0.220***	-0.221***
	(0.0121)	(0.0121)	(0.0165)	(0.0165)
Trade Dependence$_B$	1.393	1.468	2.626	2.617
	(1.046)	(1.054)	(3.582)	(3.612)
Trade Openess$_B$	-0.244***	-0.246***	-0.444***	-0.444***
	(0.0479)	(0.0480)	(0.0875)	(0.0874)
$Ln(gdppc)_A$	8.085***	8.105***	3.889***	3.888***
	(0.333)	(0.333)	(0.364)	(0.364)
$Ln(pop)_A$	0.374***	0.374***	0.132***	0.132***
	(0.0312)	(0.0314)	(0.0395)	(0.0395)
Colony	0.868***	0.860***	-0.00728	-0.0119
	(0.154)	(0.154)	(0.317)	(0.321)
Defense	0.422***	0.423***	0.554***	0.554***
	(0.0993)	(0.0981)	(0.0954)	(0.0955)
Ln(distance)	0.0299*	0.0288	0.0131	0.0130
	(0.0176)	(0.0177)	(0.0162)	(0.0162)
Post-Cold War	0.141***	0.141***	-0.110*	-0.111*
	(0.0400)	(0.0398)	(0.0594)	(0.0594)
Aid Year	-0.713***	-0.711***	-0.606***	-0.606***
	(0.0266)	(0.0266)	(0.0387)	(0.0387)
Aid Year^2	0.0779***	0.0777***	0.0690***	0.0689***

	(0.00439)	(0.00438)	(0.00703)	(0.00704)
Aid Year^3	-0.00225***	-0.00224***	-0.00218***	-0.00218***
	(0.000173)	(0.000172)	(0.000297)	(0.000298)
Constant	-15.78***	-16.14***	-7.569***	-7.378***
	(1.011)	(1.016)	(0.946)	(1.047)
Observations	28,711	28,711	15,651	15,651

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Table 15. Logistic Regression Results for The Provision of Foreign Aid and 20-Year Shifts in Relative Power—For Near Parity and No Parity Dyads

VARIABLES	(1) >=80% parity	(2) >=80% parity	(3) <80% parity	(4) <80% parity
20-Year Shift	-0.605	-1.988	-1.462	0.687
	(0.900)	(4.361)	(2.767)	(21.82)
Dissatisfaction	0.0185***	0.0564***	0.00683	-0.0201
	(0.00407)	(0.0208)	(0.00462)	(0.0520)
Relative Power	-0.487	0.327	-2.016**	-2.558**
	(0.437)	(0.610)	(0.796)	(1.203)
20-Year Shift* Dissat.	.	0.198	.	-0.372
	.	(0.139)	.	(0.386)
20-Year Shift*Relative Power	.	0.573	.	0.853
	.	(11.33)	.	(50.58)
Relative Power* Dissat.	.	-0.0904*	.	0.0589
	.	(0.0479)	.	(0.111)
Rivalry	0.462	0.464	-0.0222	-0.0201
	(0.416)	(0.419)	(0.374)	(0.373)
Assassination	3.583***	3.585***	3.699***	3.699***
	(0.228)	(0.228)	(0.257)	(0.257)
Civil War	3.940***	3.942***	3.875***	3.875***
	(0.244)	(0.244)	(0.254)	(0.254)
Irregular Turnover	0.500***	0.497***	0.458***	0.458***
	(0.0539)	(0.0540)	(0.0772)	(0.0771)
$Ln(gdppc)_B$	-2.048***	-2.058***	-1.555***	-1.537***
	(0.287)	(0.288)	(0.400)	(0.400)
PolityB	0.0461***	0.0473***	0.0520***	0.0515***
	(0.00421)	(0.00423)	(0.00489)	(0.00489)
$Ln(pop)_B$	0.0527*	0.0503*	0.248***	0.248***
	(0.0304)	(0.0305)	(0.0414)	(0.0414)
physint2	-0.195***	-0.196***	-0.218***	-0.219***
	(0.0123)	(0.0123)	(0.0169)	(0.0169)
Trade Dependence$_B$	1.144	1.197	3.380	3.307
	(0.967)	(0.970)	(3.269)	(3.342)
Trade Openess$_B$	-0.248***	-0.252***	-0.468***	-0.470***
	(0.0490)	(0.0490)	(0.0936)	(0.0935)
$Ln(gdppc)_A$	7.985***	8.002***	3.813***	3.808***
	(0.342)	(0.342)	(0.366)	(0.367)
$Ln(pop)_A$	0.383***	0.383***	0.124***	0.124***
	(0.0325)	(0.0326)	(0.0396)	(0.0396)
Colony	0.876***	0.857***	-0.00396	-0.000273
	(0.153)	(0.153)	(0.314)	(0.322)
Defense	0.409***	0.415***	0.606***	0.606***
	(0.0983)	(0.0969)	(0.0982)	(0.0983)
Ln(distance)	0.0249	0.0241	0.0135	0.0135
	(0.0176)	(0.0176)	(0.0166)	(0.0166)
Post-Cold War	0.121***	0.124***	-0.0934	-0.0946
	(0.0395)	(0.0393)	(0.0595)	(0.0595)
Aid Year	-0.738***	-0.737***	-0.595***	-0.594***
	(0.0267)	(0.0267)	(0.0382)	(0.0383)
Aid Year²	0.0815***	0.0813***	0.0662***	0.0661***

	(0.00434)	(0.00434)	(0.00687)	(0.00687)
Aid Year^3	-0.00237***	-0.00236***	-0.00205***	-0.00204***
	(0.000170)	(0.000170)	(0.000287)	(0.000287)
Constant	-15.46***	-15.76***	-7.505***	-7.277***
	(1.025)	(1.032)	(0.953)	(1.062)
Observations	28,381	28,381	15,467	15,467

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 16. OLS Regression Results for The Logged Amount of Foreign Aid and 5-Year Shifts in Relative Power—For Near Parity and No Parity Dyads

VARIABLES	(1) >=80% parity	(2) >=80% parity	(3) <80% parity	(4) <80% parity
5-Year Shift	6.607***	-15.32***	6.416	-15.84
	(1.689)	(4.209)	(5.827)	(31.69)
Dissatisfaction	-0.00177	-0.0177	-0.00367*	0.0496
	(0.00172)	(0.0125)	(0.00213)	(0.0373)
Relative Power	0.638**	0.245	-2.548***	-1.592*
	(0.302)	(0.399)	(0.597)	(0.860)
5-Year Shift* Dissat.	.	0.492*	.	-0.155
	.	(0.262)	.	(0.918)
5-Year Shift*Relative Power	.	51.11***	.	56.01
	.	(12.16)	.	(79.38)
Relative Power* Dissat.	.	0.0375	.	-0.115
	.	(0.0287)	.	(0.0798)
Rivalry	-0.0566	-0.0519	0.0101	-0.00167
	(0.114)	(0.113)	(0.0750)	(0.0748)
Assassination	0.0579	0.0550	0.0118	0.0135
	(0.0877)	(0.101)	(0.0643)	(0.0593)
Civil War	-0.0613	-0.0613	-0.0752	-0.0733
	(0.0777)	(0.0736)	(0.0809)	(0.0671)
Riot$_B$	-0.112**	-0.109**	0.0239	0.0253
	(0.0503)	(0.0552)	(0.0491)	(0.0500)
Irregular Turnover	-0.175***	-0.175***	-0.118***	-0.115**
	(0.0443)	(0.0534)	(0.0360)	(0.0470)
Ln(gdppc)$_B$	-1.378***	-1.354***	-0.637***	-0.647***
	(0.195)	(0.172)	(0.229)	(0.231)
PolityB	0.00130	0.000925	-0.00316	-0.00252
	(0.00203)	(0.00207)	(0.00234)	(0.00267)
Ln(pop)$_B$	-0.0168	-0.0166	0.0727***	0.0718***
	(0.0233)	(0.0203)	(0.0271)	(0.0277)
physint2	-0.0245**	-0.0242**	-0.0241**	-0.0240**
	(0.00996)	(0.0107)	(0.0121)	(0.0110)
Trade Dependence$_B$	1.519	1.455	2.040*	1.966*
	(1.341)	(1.347)	(1.043)	(1.115)
Trade Openess$_B$	-0.0168	-0.0187	-0.0434	-0.0428
	(0.0695)	(0.0580)	(0.0586)	(0.0521)
Ln(gdppc)$_A$	4.186***	4.169***	2.270***	2.280***
	(0.206)	(0.225)	(0.205)	(0.216)
Ln(pop)$_A$	0.159***	0.157***	0.0574***	0.0581***
	(0.0185)	(0.0193)	(0.0172)	(0.0200)
Colony	0.599***	0.593***	-0.160	-0.148
	(0.105)	(0.104)	(0.135)	(0.151)
Defense	0.0440	0.0391	0.0858	0.0911*
	(0.0732)	(0.0625)	(0.0527)	(0.0533)
Ln(distance)	0.0234***	0.0225***	0.0110*	0.0120**
	(0.00790)	(0.00651)	(0.00647)	(0.00597)
Post-Cold War	0.529***	0.533***	0.266***	0.264***
	(0.0219)	(0.0262)	(0.0311)	(0.0330)
IMRaid5	-0.0535***	-0.0557***	0.0309	0.0322*

	(0.0187)	(0.0168)	(0.0192)	(0.0177)
Constant	-6.965***	-6.765***	-3.322***	-3.772***
	(0.509)	(0.500)	(0.593)	(0.577)
Observations	28,475	28,475	15,537	15,537
R-squared	0.530	0.530	0.533	0.533

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 17. OLS Regression Results for The Logged Amount of Foreign Aid and 10-Year Shifts in Relative Power—For Near Parity and No Parity Dyads

VARIABLES	(1) >=80% parity	(2) >=80% parity	(3) <80% parity	(4) <80% parity
10-Year Shift	-4.289***	-5.863*	-5.297	-61.01**
	(1.323)	(3.466)	(5.511)	(29.91)
Dissatisfaction	-0.000915	-0.00118	-0.00251	0.0703
	(0.00174)	(0.0119)	(0.00190)	(0.0450)
Relative Power	0.610**	0.593	-2.458***	-0.998
	(0.304)	(0.381)	(0.634)	(0.885)
10-Year Shift* Dissat.	.	-0.0543	.	-0.254
	.	(0.273)	.	(0.699)
10-Year Shift*Relative Power	.	5.365	.	135.8*
	.	(9.189)	.	(77.04)
Relative Power* Dissat.	.	0.000668	.	-0.157*
	.	(0.0284)	.	(0.0947)
Rivalry	-0.116	-0.112	-0.0268	-0.0811
	(0.111)	(0.123)	(0.0688)	(0.0715)
Assassination	0.0965	0.0964	0.00492	0.00749
	(0.0885)	(0.0847)	(0.0744)	(0.0668)
Civil War	-0.168**	-0.169**	-0.0770	-0.0751
	(0.0673)	(0.0788)	(0.0747)	(0.0521)
Riot$_B$	-0.122**	-0.123**	0.0263	0.0304
	(0.0510)	(0.0554)	(0.0494)	(0.0517)
Irregular Turnover	-0.171***	-0.171***	-0.127***	-0.121***
	(0.0414)	(0.0421)	(0.0380)	(0.0360)
Ln(gdppc)$_B$	-1.460***	-1.460***	-0.590***	-0.607***
	(0.214)	(0.239)	(0.226)	(0.191)
PolityB	0.00418	0.00415**	-0.00370	-0.00276
	(0.00262)	(0.00204)	(0.00265)	(0.00244)
Ln(pop)$_B$	-0.00104	-0.000414	0.0748***	0.0730***
	(0.0207)	(0.0258)	(0.0239)	(0.0256)
physint2	-0.0240**	-0.0239*	-0.0220*	-0.0224**
	(0.0121)	(0.0127)	(0.0121)	(0.0103)
Trade Dependence$_B$	1.635	1.627	2.239**	2.082
	(1.295)	(1.481)	(1.093)	(1.270)
Trade Openess$_B$	0.0109	0.0118	-0.0317	-0.0326
	(0.0851)	(0.0584)	(0.0537)	(0.0448)
Ln(gdppc)$_A$	4.450***	4.443***	2.174***	2.193***
	(0.267)	(0.225)	(0.199)	(0.230)
Ln(pop)$_A$	0.178***	0.177***	0.0552***	0.0589***
	(0.0204)	(0.0183)	(0.0167)	(0.0181)
Colony	0.660***	0.662***	-0.135	-0.101
	(0.120)	(0.107)	(0.134)	(0.150)
Defense	0.0269	0.0281	0.0821	0.0860*
	(0.0738)	(0.0618)	(0.0597)	(0.0491)
Ln(distance)	0.0185**	0.0188**	0.00987	0.0107*
	(0.00781)	(0.00813)	(0.00659)	(0.00598)
Post-Cold War	0.494***	0.493***	0.248***	0.246***
	(0.0322)	(0.0274)	(0.0269)	(0.0333)
IMRaid10	-0.0427**	-0.0430*	0.0234	0.0274*

	(0.0212)	(0.0226)	(0.0187)	(0.0148)
Constant	-7.766***	-7.747***	-3.285***	-4.011***
	(0.670)	(0.517)	(0.486)	(0.617)
Observations	28,189	28,189	15,451	15,451
R-squared	0.528	0.528	0.547	0.547

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 18. OLS Regression Results for The Logged Amount of Foreign Aid and 15-Year Shifts in Relative Power—For Near Parity and No Parity Dyads

VARIABLES	(1) >=80% parity	(2) >=80% parity	(3) <80% parity	(4) <80% parity
15-Year Shift	-6.591***	-2.630	-1.460	-100.2***
	(1.029)	(3.510)	(4.673)	(32.91)
Dissatisfaction	-0.00155	-0.00901	-0.00318	0.0604
	(0.00164)	(0.0149)	(0.00229)	(0.0469)
Relative Power	0.650*	0.493	-2.374***	-1.194
	(0.362)	(0.440)	(0.513)	(0.853)
15-Year Shift* Dissat.	.	-0.192	.	-0.0680
	.	(0.206)	.	(0.601)
15-Year Shift*Relative Power	.	-7.821	.	234.8***
	.	(8.378)	.	(75.55)
Relative Power* Dissat.	.	0.0174	.	-0.137
	.	(0.0349)	.	(0.0992)
Rivalry	-0.161	-0.152	-0.0180	-0.0555
	(0.105)	(0.121)	(0.0746)	(0.0739)
Assassination	0.0786	0.0759	0.0182	0.0194
	(0.0925)	(0.0950)	(0.0599)	(0.0742)
Civil War	-0.0625	-0.0645	-0.0878	-0.0852
	(0.0909)	(0.0776)	(0.0673)	(0.0655)
$Riot_B$	-0.132**	-0.132**	0.0340	0.0398
	(0.0573)	(0.0528)	(0.0495)	(0.0478)
Irregular Turnover	-0.165***	-0.163***	-0.121***	-0.117***
	(0.0546)	(0.0491)	(0.0382)	(0.0335)
$Ln(gdppc)_B$	-1.507***	-1.512***	-0.696***	-0.707***
	(0.243)	(0.211)	(0.192)	(0.199)
PolityB	0.00585**	0.00562**	-0.00333	-0.00274
	(0.00252)	(0.00236)	(0.00221)	(0.00246)
$Ln(pop)_B$	0.000658	0.00198	0.0680***	0.0658**
	(0.0251)	(0.0207)	(0.0221)	(0.0258)
physint2	-0.0256**	-0.0258**	-0.0231***	-0.0229**
	(0.0122)	(0.0112)	(0.00867)	(0.0111)
$Trade\ Dependence_B$	1.853	1.836	2.241*	2.085
	(1.335)	(1.287)	(1.221)	(1.478)
$Trade\ Openess_B$	-0.00102	0.00189	-0.0352	-0.0346
	(0.0745)	(0.0576)	(0.0536)	(0.0616)
$Ln(gdppc)_A$	4.877***	4.870***	2.346***	2.335***
	(0.273)	(0.287)	(0.191)	(0.192)
$Ln(pop)_A$	0.194***	0.193***	0.0663***	0.0708***
	(0.0257)	(0.0187)	(0.0194)	(0.0172)
Colony	0.676***	0.687***	-0.149	-0.108
	(0.116)	(0.123)	(0.118)	(0.134)
Defense	0.00331	8.87e-05	0.0865	0.0801
	(0.0645)	(0.0531)	(0.0543)	(0.0608)
Ln(distance)	0.0114	0.0121*	0.00952*	0.00998
	(0.00755)	(0.00668)	(0.00569)	(0.00640)
Post-Cold War	0.516***	0.511***	0.264***	0.262***
	(0.0259)	(0.0275)	(0.0268)	(0.0293)
IMRaid15	-0.0325*	-0.0330	0.0284*	0.0320

	(0.0190)	(0.0226)	(0.0147)	(0.0211)
Constant	-8.599***	-8.528***	-3.498***	-4.064***
	(0.600)	(0.727)	(0.464)	(0.602)
Observations	28,711	28,711	15,632	15,632
R-squared	0.520	0.521	0.532	0.533

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 19. OLS Regression Results for The Logged Amount of Foreign Aid and 20-Year Shifts in Relative Power—For Near Parity and No Parity Dyads

VARIABLES	(1) >=80% parity	(2) >=80% parity	(3) <80% parity	(4) <80% parity
20-Year Shift	-1.362	-17.52***	0.898	-101.0***
	(0.832)	(3.509)	(3.965)	(25.97)
Dissatisfaction	-0.00163	-0.0133	-0.00302	0.0638
	(0.00155)	(0.0159)	(0.00193)	(0.0426)
Relative Power	0.607**	0.176	-2.494***	-1.550*
	(0.297)	(0.427)	(0.551)	(0.854)
20-Year Shift* Dissat.	.	0.309***	.	-0.0561
	.	(0.118)	.	(0.407)
20-Year Shift*Relative Power	.	39.77***	.	242.2***
	.	(8.290)	.	(64.09)
Relative Power* Dissat.	.	0.0281	.	-0.143
	.	(0.0363)	.	(0.0906)
Rivalry	-0.131	-0.127	-0.0294	-0.0762
	(0.103)	(0.137)	(0.0760)	(0.0787)
Assassination	0.0876	0.0908	0.0146	0.0159
	(0.0994)	(0.0940)	(0.0599)	(0.0691)
Civil War	-0.0402	-0.0359	-0.0712	-0.0682
	(0.0680)	(0.0792)	(0.0655)	(0.0778)
Riot$_B$	-0.121**	-0.120**	0.0428	0.0479
	(0.0549)	(0.0530)	(0.0475)	(0.0486)
Irregular Turnover	-0.176***	-0.181***	-0.122***	-0.117**
	(0.0460)	(0.0522)	(0.0428)	(0.0558)
Ln(gdppc)$_B$	-1.432***	-1.415***	-0.608**	-0.627***
	(0.197)	(0.227)	(0.248)	(0.223)
PolityB	0.00326	0.00291	-0.00365	-0.00287
	(0.00204)	(0.00204)	(0.00289)	(0.00250)
Ln(pop)$_B$	-0.00673	-0.00663	0.0716**	0.0691**
	(0.0223)	(0.0214)	(0.0320)	(0.0299)
physint2	-0.0205*	-0.0201	-0.0229**	-0.0230**
	(0.0120)	(0.0132)	(0.0102)	(0.0110)
Trade Dependence$_B$	1.600	1.587	2.477	2.064
	(1.509)	(1.579)	(2.194)	(1.935)
Trade Openess$_B$	0.00186	-0.00395	-0.0357	-0.0313
	(0.0663)	(0.0637)	(0.0491)	(0.0543)
Ln(gdppc)$_A$	4.573***	4.563***	2.291***	2.260***
	(0.232)	(0.239)	(0.251)	(0.227)
Ln(pop)$_A$	0.176***	0.173***	0.0611***	0.0640***
	(0.0192)	(0.0213)	(0.0214)	(0.0204)
Colony	0.652***	0.610***	-0.153	-0.0682
	(0.106)	(0.119)	(0.160)	(0.137)
Defense	0.00926	0.0276	0.0889	0.0807
	(0.0739)	(0.0838)	(0.0635)	(0.0631)
Ln(distance)	0.0168**	0.0177**	0.0103	0.0107
	(0.00702)	(0.00715)	(0.00862)	(0.00751)
Post-Cold War	0.520***	0.526***	0.268***	0.263***
	(0.0237)	(0.0228)	(0.0317)	(0.0290)
IMRaid20	-0.0540***	-0.0530***	0.0293	0.0343*

	(0.0159)	(0.0171)	(0.0188)	(0.0192)
Constant	-7.854***	-7.646***	-3.481***	-3.867***
	(0.682)	(0.590)	(0.591)	(0.636)
Observations	28,381	28,381	15,451	15,451
R-squared	0.521	0.522	0.532	0.534

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

VITA

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Education

Ph.D., Political Science, University of Mississippi, University, MS, 2019 (Expected)
Fields: International Relations, Comparative Politics

M.A., Political Science, University of Mississippi, University, MS, 2017
Fields: International Relations, Comparative Politics

M.A., Diplomacy, Norwich University, Northfield, VT, 2011
Field: International Terrorism

B.S., Utah Valley University, Orem, UT, 2007
Field: Art and Visual Communications

Conference Papers

"Shifts and sanctions: The effect of shifting relative power on the likelihood of economic sanctions imposition." Presented at the annual meeting of the Southwestern Social Science Association in Orlando, FL., October 2018

"Power Parity and Trade." (with Matthew DiGiuseppe) Presented at the annual meeting of the Southern Political Science Association in New Orleans, LA., January 2017

Research Interests

International relations, relative power, international trade, economic sanctions, interstate conflict, intrastate conflict, crisis bargaining, foreign policy, international political economy

Dissertation Title

"Shifting Power, Status Quo Dissatisfaction, and Power Parity: Their Effect on the Use of Coercive Foreign Policy in International Relations"

Professional Activities and Service

Reviewer, *International Interactions*

Co-chair, Department of Political Science Stats Lab, University of Mississippi, fall 2017

Volunteer, Peace Science Society Annual Conference, University of Mississippi, November 2015

Working Papers

"Power Dynamics, Status Quo Evaluations, and Sanctions Imposition."

"Elevated Conflict Risk, Rational Firms, and Bilateral Trade."

"Don't Bite the Hand that Feeds You: Power Distributions, Status Quo Evaluations, and the Provision of Foreign Aid."

Teaching

Instructor of Record
POLS 103: Introduction to International Relations, University of Mississippi, fall 2015, fall 2017, spring 2018

Courses Prepared

POLS 103: Introduction to International Relations

Grants and Awards

University of Mississippi Graduate School Honors Fellowship, $3000 per year ($12,000.00 total), August 2014 – May 2018

University of Mississippi Graduate School Dissertation Fellowship, $6500, fall 2018

University of Mississippi College of Liberal Arts, Summer Research Fellowship, $5000, summer 2017, summer 2018

Southern Political Science Association, Prestage-Cook Travel Award, $250, January 2017

Additional Training and Skills

Stata
Quantitative Research
Qualitative Research
Econometrics

Data Management
Teaching
Public Speaking
Presentations
Microsoft Office