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Power capabilities and similarity of interests: a test of the power transition theory

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POWER CAPABILITIES AND SIMILARITY OF
INTERESTS: A TEST OF THE POWER
TRANSITION THEORY

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Abstract

The study of major power conflict frequently focuses on the role of the distribution of capabilities. Power transition theory argues that when the dominant state in the international system is overtaken in power capabililities by a dissatisfied challenger, the likelihood of conflict increases significantly. Despite theoretical and empirical support for the power transition theory, it neglects the possibility of increasing power capabilities externally. Alliances and other third parties may enter into a conflict on one side or the other, or remain neutral. A state will necessarily consider the likely actions of other parties before choosing to initiate conflict against its target. This study presents a measure of power that includes such external sources of power. This measure of power, the modified CINC score, is compared to the original Correlates of War CINC score in this study. Two definitions of conflict are employed to test the variables generated from these measures of power. The results indicate that both support the power transition theory. The modified CINC score, although presenting similar results to the basic CINC score, fills the important theoretical gap of the power transition theory in not including external sources of power capabilities. It also eliminates many of the cases in which no conflict occurs despite a basic CINC power transition.

I. Introduction

The power transition theory studies the role of power capability distribution in the international system as a root cause of major power conflict. The theory argues that major power conflict is most likely to occur when a major power, dissatisfied with its place in the international system, overtakes the dominant state in power capabilities. Both power parity between the two most powerful states and dissatisfaction of the rising challenger are necessary conditions, but it is the transition that is the most salient indicator of likely conflict.

Nevertheless, the theory exhibits a serious theoretical gap, focusing almost entirely on the role of domestic capabilities, the internal measures of a state's strength. Although certainly an important indicator of state capabilities, early studies only measure power using Gross National Product. More recent studies tend to use the Correlates of War project's Composite Index of National Capabilities (CINC) score, an index focused on measures that are more salient to the perception of true state power. However, this still ignores the significance of third parties in interstate conflict initiation. The literature has given alliances and other third parties a significant role in the escalation of hostilities, but ignores their effects on onset.

Consequently, this study utilizes a measure of power capabilities that includes both internal and external means of increasing power capabilities. Woosang Kim (1989, 1991) has presented power transition studies that include alliance coalition capabilities as an indicator of power capabilities. This is problematic because it takes alliance reliability for granted. Allies, like neutral states, might choose to enter on one side or the other or to remain neutral. Therefore, rather than using alliance data to account for likely external power, this study uses the weighted S-score developed by Signorino and Ritter (1999) as an indicator of the likelihood that a state will enter on one side or the other. As the internal measure of power, this study utilizes the

CINC score. Although not used in Organski and Kugler's (1980) original study, it enjoys more mainstream use in the interstate conflict literature.

The modified CINC score presented herein improves upon earlier research by presenting a measure of power that includes both internal and external sources of power and accounts for likely third party behavior. When taking into account the power transition, rate of growth, and relative power, this measure should show to be more significant and more realistic than using only domestic capabilities.

II. Literature Review

The relationship between power and conflict has long been debated by those studying international relations. Despite the longevity of this discourse, scholars in the field have been unable to reach a clear consensus regarding this relationship. The balance of power theory, often attributed as far back as Thucydides, had become preponderant in the discipline, and until recently has managed to maintain this status. In fact, balance of power gained such predominance that it was employed by many government elites in the West throughout modern history (for example, the policies of Great Britain during the 19th century). Although this respectably ancient theory has dominated international relations research as well as foreign policy, it lacks consistent empirical support. Recent literature has tended to favor those studies suggesting that power preponderance is more conducive to the maintenance of peace between states. Specifically, the literature shows that a power transition between a preponderant state and a rising challenger is the most conducive environment to major power conflict.

The power transition theory has enjoyed a wealth of literature showing both its theoretical value and its significant empirical results, recently being referred to as the current "scholarly consensus" (Reed 2003, 633). Power transition theory suggests that a relatively equal distribution of power capabilities between states is more likely to be result in conflict, where balance of power theory posits that this power distribution encourages peace in the international system. The theory argues that conflict is most likely to occur in the context of another state, approaching the preponderant state in power capabilities, which exhibits dissatisfaction with the international status quo (Organski and Kugler 1980). This implies that power parity is more typically the environment of conflict onset, while power preponderance tends to decrease the chances of war onset. Although he is often claimed by balance-of-power theorists, Thucydides

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illustrates this dynamic in his observation that "[w]hat made the war inevitable was the growth of Athenian power and the fear which this caused in Sparta" (Thucydides 1972, 49).

A.F.K. Organski first presented the destabilizing effects of power transitions in *World Politics*: "wars are most likely when there is an approaching balance of power between the dominant nation and a major challenger…Indeed, the major wars of recent history have all been wars involving the biggest power in the world and its allies against a challenger (or group of challengers) who had recently risen in power…" (Organski 1958, 376, 361). It is important to note that the power transition theory, breaking with traditional realism, focuses on the *domestic* sources of power and how it impacts conflict. In fact, Organski posits that it is only likely in a specific context of political and economic development (1958, 339; Lemke 2002, 2). This is a necessary but not sufficient context, as the power transition also demands that the rising challenger be dissatisfied, typically because it "[became] powerful too late to receive a proportionate share of the benefits" of its power status (479). To illustrate, Organski shows that the development of Germany and the United States provided pre-World War I England with two potential challengers, although only Germany exhibited a significant degree of dissatisfaction with its place in the international system, a feature of the theory which is discussed more in depth below.

Organski builds upon his original theory with Jacek Kugler in *The War Ledger* (1980). "If one nation gains significantly in power, its improved position relative to that of other nations frightens them and induces them to try to reverse this gain by war. Or, vice versa, a nation gaining on an adversary will try to make its advantage permanent by reducing its opponent by force of arms" (Organski and Kugler 1980, 13). Unlike *World Politics,* this work focuses specifically on the power transition theory and tests its ability to account for major power

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conflicts. Using the criteria of at least one major power in each opposing coalition, higher battle deaths than in any previous war, and the result of losing territory or population, the authors find four cases to illustrate power transition theory in practice: the Franco-Prussian War of 1870-71, the Russo-Japanese War of 1904-5, and the two World Wars (the Napoleonic Wars are introduced as fitting the qualifications outlined therein, but excluded due to lack of reliable data) (Organski and Kugler 1980, 45-46). Kim (1989, 1991) points out that their selection is too restrictive, and includes the Crimean War, the Franco-Austria War ("War of Italian Unification"), and the Austro-Prussian War ("Seven Weeks War") in his studies.

Organski and Kugler contend that power transition theory views "domestic changes as the source of the greatest disturbances in the international system" (Kugler and Lemke 1996, 9-10). Werner (2000) finds that states with similar domestic politics are able to avoid conflict with one another. Unlike earlier research, "domestic politics is assumed to matter because domestic politics can constrain or influence a leader's management of international disputes (Werner 2000, 368). Organski shows how the accumulation of strength was not only the result of military victory or alliance building, and that "internal changes of the most momentous sort are constantly occurring *within* modern nations" (emphasis added, Orgasnki 1958, 339). This is the key domestic factor in building one state's power relative to others and is the principle source of power in power transition theory.

Power transition theory focuses its attention on the hierarchical structure of the international system, only acknowledging anarchy as a *condition* thereof. Organski (1958) describes the international system not as "a self-regulating mechanism or a chess game" nor as "a wild chaos or free-for-all," but argues that the international system should be viewed as a pyramid with the dominant world power at the apex and other categories of powers as one

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descends the pyramid (339). The apex of the pyramid is the dominant nation, followed by a small number of great powers, below which are middle powers, small powers, and, finally, dependencies (365). This vertically-parallel power structure presents the possibility of extending the power transition theory beyond the major power conflicts (those causing a change in structure of the international system) to regional conflicts causing a change in the *regional* power structure. Although interesting and often receiving empirical support (for example, Lemke 2002, 1996), this extension is problematic, which I address below.

Beyond Organski's (1958) original discussion of his theory and Organski and Kugler's (1980) empirical studies on great power conflicts, Lemke (2002, 1996) applies this theory beyond the small sample at the top of the hierarchy. As mentioned above, Lemke (1996) posits a 'power-cone' hierarchy of states in the international system. Vertical movement indicates an increase in power capabilities, while horizontal movement indicates changing spheres of influence or distance. These smaller hierarchies may be perceived as "diminutive parallels of the dominant international hierarchy in that there is a relationship of power dominance and subordination within each one. Each local hierarchy has its own dominant power that has established relations within the local hierarchy to its liking" (80). As an illustration, Lemke (1996) offers this discussion regarding those more powerful nation and challengers (contenders): "Compared to the United States, Argentina is a minor power. Compared to Brazil, Argentina is a contender. Likewise, compared to Argentina, Paraguay is a minor power, yet compared to Bolivia it is a contender" (81). However, the extension of the power transition theory beyond those system-changing conflicts is problematic. More powerful states may easily become involved in disputes within the regional hierarchies of which they are the hegemon. The likely actions of a more powerful state may be well known as a function of their regional interests. A

rising challenger within a local hierarchy is not likely to be sufficiently committed to changing the local status quo if, in all likelihood, the regional hegemon it is approaching has very similar interests to a state one step above their own regional hierarchy.

Throughout the power transition literature, the theory has shown that interstate conflict typically requires both opportunity and willingness (Starr 1978). Lemke and Werner (1996) expand on this relationship, arguing that the Starr's opportunity is fulfilled by power parity and his willingness is fulfilled by negative evaluations of the status quo. As mentioned above, states are most likely to fight in near power parity, as "[o]nly when a pair of states are [*sic*] relatively equal in capabilities can both sides in a conflict realistically expect to win" (Lemke and Werner 1996, 235). Power parity creates an environment in which the challenger is more likely to anticipate victory against the dominant nation. Organski (1958) and Organski and Kugler (1980) show that dissatisfaction (also referred to in the literature as commitment to change, Lemke and Werner 1996) is exhibited by the challenger when the "prospective rules of the system that it would like to impose are different 'enough' from those already established" (Lemke and Werner 1996, 239). The prospective rules are different "enough" according to Lemke and Werner if the costs of initiating conflict with a state outweigh the anticipated adjustment of the status quo (1996, 239-240). Danilovic and Clare (2007) show how dissatisfaction with the status quo stems from conflicting interests in a given region, that "their willingness to fight is contingent upon their satisfaction with their influences across different regions" (302).

Although current empirical studies tend to favor the power transition arguments, it has generally failed to explain the significance of alliances and other third parties within the international system (although some studies have accounted for a significant role of alliances in international; see Kim 1989, 1991, further discussed below). In fact, the power transition theory

argues that because alliances tend to be fixed, they are inconsequential to the likelihood of conflict initiation, although they may be significant in the continuation or even the escalation of major power conflicts (Kugler and Lemke 1996, Organski and Kugler 1980). In power transition theory, increasing power is an internal process as a result of economic development (Organski 1958); however, balance of power argues that alliances are fluid and thus an important factor in shifting the distribution of power capabilities, stressing the importance of increasing power by external means (Kaplan 1957, Morgenthau 1973). Balance of power theorists argue that alliance building is a vital process by which states maintain the international balance of capabilities: "[t]o be helpful (in balancing power), flexibility has to mean that, where one or more states threaten others, some state will join one side or defect from the other in order to tilt the balance against the would-be aggressors" (Waltz 1979, 164).

The alliance literature is extensive, if not on its own then on the periphery of other major topics in international relations. The role of alliances is understated in the power transition theory literature, even though studies have found alliances to be crucial, whether those results show alliances to be pacific or deterrent in nature (Smith 1998, Leeds 1999). A potential challenger is unlikely to have the opportunity when those states with parallel interests are taken into account, especially those that the challenger views as reliable (Leeds 2003). Although alliances provide some indication of how states are going to react in the event of conflict, alliance reliability is difficult to assess and oftentimes impossible to predict. Empirical studies of alliance reliability have presented results varying from 24.5% reliability (Sabrosky 1980, Siverson and King 1980) to 74.5% (Leeds, Long, and Mitchell 2000).

Still, several studies of the power transition theory, most notably Kim (1989, 1991), have argued that alliances do prove significant even within the power transition theory. Kim (1989)

finds general support for the power transition hypothesis, but argues that the likelihood of conflict only actually increases when two alliance coalitions are relative equal in their power capabilities, rather than the relative capabilities of two states. The power transition literature is supported, but Kim shows that focusing solely on domestic capabilities presents empirical as well as theoretical problems. In this sense he finds that parity between two units is conducive to conflict, but that the balance of power theory provides a better explanation of the "critical role" alliances play therein (271). The exclusive focus on internal means of increasing a state's power becomes problematic for the researcher, and it is important to recognize that there are both internal and external means by which power can be expanded (Most and Starr 1984). Both types of power will interest a potential attacker in deciding to enter a conflict with another major power. In light of this, Kim (1996) studies power transition theory by "relaxing the assumption that internal growth is the only method of augmenting power and suggest that a nation's power can be augmented not only by such internal means as industrialization, but also by such external means as alliance formation" (95).

The significance of Kim's (1989, 1991) studies is evident, though his findings are focused almost entirely on *alliance* coalitions. His alliance coalitions are the total capabilities of all allies. Certainly, the formalization of a military agreement provides states with a means to attach costs to a failure to uphold an agreement, whether material costs or damage to the state's prestige; nevertheless, a state must assess not only the reliability of its and its enemies' allies, but also those third parties which might become involved in a conflict on one side or the other. In order to account for what challengers must consider in the decision to enter conflict, this study uses not only the sum of capabilities of those states within an alliance, but also how and if they

will take sides. This study draws on Kim's theoretical arguments, but suggests that his measure of power is too reliant on formalized military agreements.

III. Theoretical Development

Power transition theory posits a hierarchical international structure, in which states are placed based on power capabilities, prestige, and general sphere of influence (Organski 1958). Although this system exists in anarchy, it is not chaotic. Decisions regarding major conflict initiation will be made by state actors based on their position or perceived position in the hierarchy. A rising challenger state must have some expectation of victory before it will choose to contest the preponderant state. Further, the rising challenger must be significantly dissatisfied with its placement in the international system to view conflict as preferable to peace (Organski and Kugler 1980). This context, a dissatisfied challenger reaching relative power parity with the dominant state, is most conducive to major power conflict.

Despite the empirical support enjoyed by this theory, it largely ignores the role of third parties in the onset of major power conflict. Because empirical evidence suggests they are significant, whether as a deterrent or an accelerant, this treatment of third parties is a major theoretical and empirical flaw (Smith 1998, Leeds 1999). In measuring power, empirical studies of power transition theory typically only measure domestic power capabilities. Domestic resources are certainly imperative to the measurement of a state's capabilities, but state power must also be measured to include external sources. The challenger cannot expect victory if the preponderant state is able to form a more powerful coalition of likely supporters. The dominant state may make up for its inability to increase internal capabilities by arranging for allies and other parties to increase its external capabilities (Starr 1978). For this reason, this study uses a measure of power that includes both internal and external state capabilities in measuring the likelihood of conflict.

Woosang Kim (1989, 1991) presents several notable exceptions to the power transition literature in utilizing both internal and external measures of power. His studies argue that relative alliance coalition capabilities are better indicators of the likelihood of conflict than relative dyadic domestic capabilities. Although focused on alliances, his studies do include some third party states which do not necessarily have a formalized agreement with one of those states in a given dyad. Despite this inclusion of third parties beyond formalized alliances in his measure of power, he goes too far in assuming the reliability of these allies. The costs of reneging on an alliance often do not outweigh the expected costs of conflict. The researcher must be aware that in the event of conflict, third parties may enter on the side of the dominant state, the rising challenger, or remain neutral (Signorino and Ritter 1999).

Although never entirely reliable, alliances are important indicators of state interests. Because alliances are formalized cooperative agreements, they present costs to member states should they renege, whether these costs are to the state's wealth or prestige. Due to these deterrents to reneging, those states considering whether or not to initiate conflict will consider the likely actions not only of their own allies, but those of their potential enemy's allies as well. However, this study does not specifically look at alliances because of two specific problems. First, alliances are fickle: empirical studies of alliance reliability exhibit drastic inconsistency ranging from about a quarter of the time (Sabrosky 1980) to about three quarters of the time (Leeds, Long, and Mitchell 2000). Even if the researcher assumes that alliances are generally reliable, an inherent probability of alliance failure always exists. A state may only enjoy complete trust in its allies in extremely rare cases, if ever. The second reason alliances are problematic is that third parties may choose to enter conflict on either side despite the lack of a formalized agreement (Signorino and Ritter 1999). Therefore, those studies which present allies

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as completely reliable and assume only formalized alliance participation ignore these third parties and other special relationships. For these reasons this study agree with Kim's most general assumption in the necessity of including third parties in measures of power, but avoids reliance on formalized agreements.

In order to account for alliance reliability as well as the inclusion of other parties, this study utilizes similarity of foreign policy interests to measure external sources of power capabilities. Similarity of foreign policy interests is best represented by the S-score presented by Signorino and Ritter (1999). The S-score is a spatial measure of foreign policy similarity and more accurately illustrates interest similarity than the earlier tau-b measure (Signorino and Ritter 1999, Bennett and Rupert 2003). It should therefore provide a reliable measure in the inclusion of likely external capabilities.

This study looks at the domestic capabilities, but includes the likelihood of third parties in the decision making process of a challenger before deciding to initiate conflict. Although domestic capabilities are vital, other likely parties must be included in the measure of a state's overall capabilities. It is when these likely coalitions reach a level of relative parity that the rising state is most likely to challenge the dominant state. This is the first hypothesis.

H_1: The likelihood of major power conflict increases in the event of a power transition of two major powers' internal and likely external power capabilities.

Further, Organski and Kugler (1980) argue that the rate of growth of the challenger relative to that of the dominant state will be significant in indicating the likelihood of conflict. The quicker the approach of the challenger, the more unstable its rise to hegemony will be. Thus, this study's second hypothesis is:

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H₂: The likelihood of major power conflict increases when the power capabilities of the

challenger and its likely supporters are high relative to the dominant state and its likely

supporters.

Finally, the implication of the power transition theory is that power parity is conducive to

conflict.   Conflict is unlikely to occur if the rising state's capabilities increase beyond parity

with the dominant state.

H₃: The likelihood of major power conflict increases when the power capabilities of the

challengers and its likely supporters are in relative power parity with the dominant state

and its likely supporters.

These hypotheses imply that the modified CINC score is going to be more statistically

significant than using the basic CINC score. The primary focus of this study is to provide a new

measure of power rather than to reaffirm the empirical results of power transition theorists. I

now turn to the results to compare these two measures of power.

IV. Research Design

The data used for this study were gathered using the Expected Utility Generation and Data Management (EUGene 3.203) software (Bennett and Stam 2000) and run using Stata 9.2. The unit of analysis is the non-directed, major-power dyad for all years between 1816 and 2000. Only major power dyads are included because power transition theory only attempts to explain the likelihood of conflict between those states at the apex of the international power hierarchy (Organski and Kugler 1980, Kim 1991). Subsequent empirical studies have applied the theory beyond these to regional and minor power hierarchies (for example, see Lemke 2002, 1996). However, this approach is problematic because of the ability of more powerful states to become involved and possibly act as deterrents or to influence the outcome in the event of conflict. This may be for a variety of reasons, though it is often an effect of more powerful states' interests in the region (Danilovic and Clare 2007). Major power conflicts are at the crux of the traditional power transition theory while these extensions are not and are thus omitted from this study. I use non-directed dyads because I make no assumptions regarding which state initiates the conflict.

Table 1 presents those great powers included in this study and the years during which they are considered great powers.

Table 1. Great Powers and Years

Major Powers	Years as Major Powers
United Kingdom	1816-2000
France	1816-1940; 1945-2000
Prussia/Germany	1816-1918; 1925-1945; 1991-2000
Austria-Hungary	1816-1918
Russia/USSR	1816-1917; 1922-2000
Italy	1860-1943
United States	1898-2000
Japan	1895-1945; 1991-2000
China	1953-2000

I utilize two different dependent variables indicating conflict onset, both generated using the Militarized Interstate Dispute (MID) dataset from the Correlates of War Project (Ghosn, Palmer, and Bremer 2004). Because major power conflict is so costly to the participants, these variables are measured by the level of hostilities reached by both parties. The level of hostilities is coded on a scale of "1" to "5" with "1" indicating no hostilities between the states, "2" indicating a threat, "3" indicating a display of force, "4" indicating a use of force, and "5" indicating war. The first dependent variable indicates the level of hostilities reached by both sides reached a use of force or war. This does not imply both states reached the same level of hostilities, as State A in a given dyad may very well have increased its level of hostilities to the level of war, while State B maintained the use of force. The dyad years in which conflict is ongoing are dropped, as this study and those of the power transition theory in general focus on the onset of conflict. For simplicity, I refer to this as "major conflict."

The second dependent variable indicates whether a MID occurred, but short of the use of force. MID's themselves are defined as "united historical cases of conflict in which the treat, display or use of military force short of war by one member state is explicitly directed towards the government, official representatives, official forces, property, or territory of another state" (Jones, Bremer, and Singer 1996). Those cases in which the level of hostilities of one member of the dyad reaches war are not included as a MID. These will include threats and displays of foce. Again, those dyad years in which there are ongoing conflicts are dropped, and I refer to this variable as "minor conflict."

It is important to note that the number of uses of force and wars is greater than the number of MID's. This is most likely an effect of the level of hostilities coded as war. A MID is

not said to have occurred if the level of hostilities reaches this level. If one side of the dyad reaches the level of war, then the dyad is not coded as a MID.

Power transition theory only attempts to explain the onset of hostilities. As mentioned previously, this study does not attempt to predict which state in a given dyad initiates the conflict, as the literature has no consensus on whether the preponderant state or the rising challenger tends to initiate. Kim (1989, 1991) utilizes both linear and logistic regression models because Organski and Kugler (1980) do not specify which they use. Nevertheless, a binary dependent variable demands the use of a logistic model to ensure values which only fall between 0 and 1.

The primary power capabilities measure utilized in this study necessarily includes both internal and external sources of power; however, the assumption that both are significant within the power transition literature is not entirely novel. Woosang Kim (1989, 1991) has shown that the tendency of most power transition theorists to ignore the role of external means of power is particularly troublesome. His research shows that focusing only on domestic capabilities is overly restrictive. Whether or not conflict occurs is not solely dependent on the distribution of power between the two most powerful states in the international system. The challenging state will not engage in conflict if it cannot assume some likelihood of victory. There is little likelihood of victory for the challenging state if its capabilities *and* the capabilities of its supporters are not in near-parity with the dominant state and its likely supporters. As with Organski and Kugler's (1980) study, this work studies only major power behavior.

The measure utilized for internal capabilities is the Correlates of War project's Composite Index of National Capabilities (CINC) (Singer, Bremer, and Stuckey 1972, Singer 1987). Although earlier studies of the power transition theory use other measures (for example,

GDP or GNP), the COW CINC score for each state is more commonly used in studies of interstate conflict (de Soysa, Oneal, and Park 1997; Singer 1987). Later studies within the power transition theory literature also utilize the CINC score, which combines those statistics which may be considered most salient to measures of power capabilities: total population, urban population, iron and steel production, energy consumption, military personnel, and military expenditures (Singer, Bremer, and Stuckey 1972).

Previous studies of interstate conflict, as well as those within the power transition literature which attempt to account for external sources of state power, are too optimistic about the role of formalized alliances. Formalized alliances may be important indicators of state interests and possibly the likelihood of involvement (in other words, the possibility of deterring a potential attacker from initiating conflict with a target); however, the researcher cannot take for granted that they will enter on the side of their ally. An ally may very well choose to stay neutral or even enter on the side of the opponent. For these reasons, as opposed to types of alliances or total alliance coalition capabilities, this study includes dyadic, weighted S-scores as its external measure of power augmentation. The S-score is a measure of similarity of foreign policy interests between two states based on alliance portfolio similarity (Signorino and Ritter 1999). The values may fall between S=1, indicating identical interest similarity, to S=-1, indicating complete dissimilarity. Further, a given state will typically value its relationship with a more powerful state than a weaker state, and so the weighted S-score, or S_c, is used. This S-score includes weighting as one state's power capabilities as a proportion of the overall capabilities in the international system. The higher proportion a state's capabilities are, the more likely their support will be valued by other states.

Although the power transition theory requires the challenging state to be dissatisfied, few studies have attempted to quantify dissatisfaction (Organski and Kugler 1980, Kim 1991; for a notable exception see Lemke and Werner 1996). I argue that the S-score should account for satisfaction. Kim (1991) uses similarity of interests between the dominant state and the challenger as indicative of satisfaction using the Kendall's tau-b measure of alliance portfolio similarity. This research replaces Kim's (1991) use of Kendall's tau-b with the S-score (Signorino and Ritter 1999).

The new measure of power is developed after identifying both the internal (CINC score) and likely external sources of power (S_c-score). For each dyad, the S_c-score is multiplied by the CINC score for state B. These values are summed for each of state A's country-years and added to State A's capabilities to give the modified CINC score for that dyad-year. For example, the modified CINC score for France in 1816 will be the same for each dyad-year whether state B is the United Kingdom or Austria-Hungary. To clarify, those dyads with a negative S_c score will subsequently be negative when multiplied by the capabilities of state B. The addition of these values take away from the modified CINC score of state A, indicating that state B in this dyad is more likely to side against state A. The minimum value of all modified CINC scores is added to all values to remove the complications of a state's capabilities being negative. Table 2 shows the differences between the CINC and modified CINC scores.

Table 2. Correlation of Modified and Basic CINC Scores

	Modified	Basic
Modified	1.0000	
Basic	0.2155	1.0000

The two measures of power also present different power transitions. Table 3 presents the correlation between the power transition variables generated using the modified CINC scores and the basic CINC scores.

Table 3. Correlation of Modified and CINC-based Power Transitions

	Modified Transition	Basic Transition
Modified Transition	1.0000	
Basic Transition	0.6709	1.0000

The two measures of power are significantly different in value, as indicated in table 4. This table presents the summary statistics of both the basic CINC score and the modified CINC score generated in this study. The modified CINC score varies to a wider degree than the basic CINC score. Because of the relatively low correlation between the two and the variation in values, I hypothesize that the results for the two different measures of power capabilities will differ significantly.

Table 4. Differences between CINC and Modified CINC

	Mean	Min	Max	St. Dev.
CINC	0.106	0.018	0.384	0.074
Modified CINC	0.550	0.000	1.173	0.141

The values of the measures of power vary state by state as well. The highest mean different between the two measures of power occurs with Germany (0.526 difference in means) and the lowest in the United States (0.321 difference in the means). Table 5 lists the major powers during the studied period by their mean basic CINC scores from highest to lowest values. The top row for each great power presents the summary statistics for the basic CINC score and the second row for the modified CINC score developed in this research. The third row presents the absolute value difference between the two.

Table 5. Comparison of CINC and Modified CINC Scores		Mean	Min	Max	St. Dev.
USA	(cinc)	0.211	0.130	0.384	0.056
	(mod_cinc)	0.532	0.000	0.868	0.170
		0.321	0.130	0.484	0.114
UK	(cinc)	0.154	0.022	0.337	0.103
	(mod_cinc)	0.625	0.185	1.173	0.202
		0.471	0.163	0.836	0.099
FRN	(cinc)	0.077	0.017	0.158	0.041
	(mod_cinc)	0.531	0.076	0.730	0.116
		0.454	0.059	0.572	0.075
GMY	(cinc)	0.092	0.028	0.202	0.043
	(mod_cinc)	0.618	0.412	0.840	0.128
		0.526	0.384	0.638	0.085
AUH	(cinc)	0.058	0.032	0.099	0.019
	(mod_cinc)	0.523	0.435	0.638	0.037
		0.465	0.403	0.539	0.018
ITA	(cinc)	0.033	0.020	0.051	0.005
	(mod_cinc)	0.488	0.442	0.557	0.021
		0.455	0.422	0.506	0.016
RUS	(cinc)	0.128	0.052	0.185	0.034
	(mod_cinc)	0.547	0.249	0.826	0.142
		0.419	0.197	0.641	0.108
CHN	(cinc)	0.114	0.091	0.131	0.009
	(mod_cinc)	0.442	0.288	0.531	0.061
		0.328	0.197	0.400	0.052
JPN	(cinc)	0.042	0.025	0.067	0.011
	(mod_cinc)	0.504	0.462	0.564	0.028
		0.462	0.437	0.597	0.017

The primary independent variable of this study is dichotomous: the power transition

based on the modified CINC score, indicating whether or not a transition occurs. Organski and

Kugler's (1980) original method as well as those methods employed by the extensions of Kim

(1989, 1991) look specifically at periods consisting of twenty years to see whether or not a

transition occurs. This study does not assume that such a length of time is required for a power

transition and utilizes five year periods. The power transition is operationalized this way

because previous studies have indicated that if the power transition occurs in too long of a time

span, then the likelihood of conflict is especially low (Organski and Kugler 1980, Kim 1989). I develop this variable in several steps. First, the difference between the two states' modified CINC scores is found. This raw number is then made into a trichotomous variable. Dyads in which state A is in preponderant are coded "1," dyads in which state B is preponderant are coded "-1," and those states in relative power parity (the value is within one standard deviation from zero) are coded "0." Finally, I find the difference between the trichotomous variable for a given year and its value five years ago. Those cases in which the value is not zero are coded as a power transition.

The second independent variable utilized by this study is the difference of growth rates between the two states in the dyad. Organski and Kugler (1980) suggest that the rate of growth of the challenger may influence the likelihood of conflict. If the rate of growth of the challenger is high relative to that of the dominant state, the likelihood of conflict increases. Using Bennett and Stam's (2004) method, this value is calculated first by taking the five-year moving average modified CINC score. In other words, the mean used in 1916 includes the years 1912 through 1916; the mean used in 1917 includes the years 1913 through 1917, and so on. Next, the value of state A's five-year moving average is subtracted from that of state B, and the absolute value is found. I find the absolute value because the direction is not important, but rather the difference between the values. The higher the difference between these rates of growth between the two states, the more likely conflict between the two states will occur.

For the last independent variable, Kim (1991) employs a variable he refers to as "alliance equality," which is the proportion of the alliance coalition capabilities during a given time period. This study employs a similar variable but defines it as the capabilities of the weaker state as a proportion of the capabilities of the stronger state. This is the same method as that utilized

by Kim (1991), simply using the modified CINC scores to measure power capabilities. This study does not look specifically look at 20 year periods, and assumes that the closer to a value of 1 of annual parity of power capabilities, the greater the likelihood of conflict.

This study utilizes a number of control variables to account for extraneous circumstances. First, this study measures the balance of power between two states. This measure is the capabilities of the weaker state as a proportion of the total capabilities of the dyad with a value of 0.5 indicating total balance. The balance of forces should affect the willingness of states to enter conflict with one another. In other words, significant disparity in the balance of forces will deter conflict.

Second, I control for the effects of geographic contiguity. States that are contiguous are significantly more likely fight with one another (Oneal and Russett 1997). States that share a land border are coded "1." Because major powers are considered politically relevant despite a lack of land contiguity, this variable is ordered up to a value of "6," indicating the two states' nearest borders to one another are further than 400 miles apart (Stinnett et al. 2002).

Third, the effects of joint democracy are considered. The measure of joint democracy employed by this study is simply the value of the less democratic state in the dyad. This is the method employed by a number of studies of international conflict (Bennett and Stam 2000, Werner 2000). The democratic peace literature has presented a large volume of empirical evidence suggesting that democracies are significantly less likely to enter conflict with one another (Maoz and Russett 1993, Rousseau et al. 1996). This should account for the lack of predicted conflicts between democratic states.

Finally, this study looks at the number of peace years, the number of years since the last conflict of the dyad. Conversely, recent studies have shown that the number of peace years is

temporally dependent (Beck, Katz, and Tucker 1998). Temporal dependence refers to the effect of events one or more years previous affecting those current events. The conflict history of a dyad will be a significant indicator of whether or not conflict will occur in future dyad year. In order to account for this effect on peace years, I run three cubic spline variables.

As mentioned above, the three independent variables employed by this study are all hypothesized to be significant and increase the likelihood of major power conflict between the states in a given dyad. In order to compare the results based on different measures of power, this study runs a second model using the basic CINC score as its measurement of state capabilities, and predicts that these values will not be as statistically significant as those using the modified CINC score. I also hypothesize that the modified CINC score-based model will be a better predictor of conflict than this second model. In order to compare the measures of power, I present the marginal effects in the event that a power transition does not occur, and in the event that one does occur.

V. Results

In order to discover the relationship between the independent variables (those are the power transition, the relative growth of power capabilities between the two states, and the relative capabilities between the two states) and the likelihood of conflict, logistic regression models are used due to the dichotomous nature of the dependent variable. These models are specified as:

$$\text{Conflict} = \beta_1 + \beta_2\text{Power Transition} + \beta_3\text{Relative Growth Rate} + \beta_4\text{Power Parity} + +$$

$$\beta_5\text{Power Balance} + \beta_6\text{Geographic Contiguity} + \beta_7\text{Joint Democracy} + \beta_8\text{Peace Years} +$$

$$\beta_9\text{Spline1} + \beta_{10}\text{Spline2} + \beta_{11}\text{Spline3} + \varepsilon$$

In this model, β represents a parameter estimate and ε is the error term. The model looks at the relationship that each variable has on the likelihood of conflict between the two states in a dyad. The first model includes the measure of conflict indicated by at least the use of force by both sides excluding dyad years in which an ongoing war is present. This measure of conflict includes a slightly greater number of successes. The second measure of conflict is also dichotomous indicating whether or not a militarized interstate dispute (MID) short of the use of force occurred. The different observed cases of conflict are summarized in table 6.

Table 6. Tabulation of Different Measures of Conflict

	Conflict	No Conflict	Total
Major Conflict	199	2703	2902
Minor Conflict	148	2754	2902

The results of this model are presented in table 7, comparing the output for both the modified CINC score and the basic CINC score. The coefficients, standard error, and p-values are presented, with those statistically significant variables in bold.

Table 7. Results of Logit, Major Conflict between Major Powers
N=2469, Mod CINC pseudo-R^2=0.05, CINC pseudo-R^2=0.06

		Mod CINC Results	CINC Results
Power Transition		**0.689**	**0.893**
	(se)	**0.385**	**0.327**
	(p)	**(0.073)**	**(0.006)**
Relative Growth		-0.153	-4.252
	(se)	1.818	4.535
	(p)	(0.933)	(0.348)
Power Parity		0.005	3.051
	(se)	0.018	4.159
	(p)	(0.803)	(0.463)
Balance of power		0.038	8.452
	(se)	0.037	9.272
	(p)	(0.310)	(0.385)
Contiguity		**-0.132**	-0.087
	(se)	**0.067**	0.072
	(p)	**(0.049)**	(0.224)
Joint democracy		**-0.169**	**-0.179**
	(se)	**0.064**	**0.066**
	(p)	**(0.008)**	**(0.006)**
Peace Years		0.039	0.047
	(se)	0.066	0.064
	(p)	(0.551)	(0.467)
_Spline 1		0.000	0.000
	(se)	0.000	0.000
	(p)	(0.491)	(0.421)
_Spline 2		-0.000	-0.000
	(se)	0.000	0.000
	(p)	(0.368)	(0.315)
_Spline 3		0.000	0.000
	(se)	0.000	0.000
	(p)	(0.157)	(0.139)
Constant		**-4.199**	-11.622
	(se)	**0.825**	8.645
	(p)	**(0.000)**	(0.179)

Note: Bold indicates significant results

The results show that the power transition variable is less significant when based on the modified CINC score (the p-value is 0.073) than the basic CINC score (the p-value is 0.006). In the event of a power transition in a given dyad year, the variable based on the modified CINC score shows an increase in probability of conflict by 0.689. On the other hand, the power transition generated using the basic CINC score increases the probability of conflict by 0.893. Nevertheless, these results support the expected relationship predicted by Hypothesis 1, supporting the power transition theory (Organski and Kugler 1980). In both cases, a power transition increases the likelihood of conflict in a dyad.

The relative growth independent variable actually indicates an indirect relationship, contrary to that expected by Hypothesis 2, but consistent with Kim's (1991) findings. The coefficients though are not statistically significant. The same is true for the third independent variable, power parity between the two states in the dyad. The relationship is predicted by Hypothesis 3 but is statistically insignificant, contrary to Kim's (1991) results.

When controlling for contiguity, the relationship is negatively associated with conflict, decreasing the likelihood by 0.132, and statistically significant (the p-value is 0.049). This is especially interesting, but not entirely surprising. Although several states considered great powers are contiguous, their great power status presents them with an ability to become engaged in conflicts with states beyond their neighbors. This is reflected in inclusion of all great powers in politically relevant dyads (Lemke and Reed 2001).

Joint democracy is negatively associated with conflict and is statistically significant in both the modified and basic CINC derived variables (the p-value is 0.008 and 0.006, respectively). The more democratic the less democratic state in the dyad is, the less likely conflict is to occur between the two states (Maoz and Russett 1993).

Table 8 presents the results of the logit regression which utilizes minor conflict as its measure of conflict. Recall that this variable does not include those cases in which the level of hostilities exhibited by one side or the other reached the level of war. Those variables which are statistically significant are presented in bold.

Table 8. Results of Logit, Minor Conflict
N=2469, Mod CINC pseudo-R^2=0.04, CINC pseudo-R^2=0.06

		Mod CINC Results	CINC Results
Power Transition		**0.575**	**0.405**
	(se)	**0.240**	**0.194**
	(p)	**(0.016)**	**(0.036)**
Relative Growth		0.023	3.630
	(se)	1.109	2.661
	(p)	(0.983)	(0.173)
Power Parity		0.004	-2.455
	(se)	0.010	2.764
	(p)	(0.726)	(0.374)
Balance of power		-0.033	-10.711
	(se)	0.045	6.612
	(p)	(0.459)	(0.105)
Contiguity		**-0.160**	**-0.114**
	(se)	**0.041**	**0.045**
	(p)	**(0.000)**	**(0.012)**
Joint democracy		**-0.139**	**-0.143**
	(se)	**0.040**	**0.041**
	(p)	**(0.000)**	**(0.000)**
Peace Years		0.038	0.043
	(se)	0.036	0.035
	(p)	(0.296)	(0.219)
_Spline 1		0.000	0.000
	(se)	0.000	0.000
	(p)	(0.178)	(0.162)
_Spline 2		-0.000	-0.000
	(se)	0.000	0.000
	(p)	(0.125)	(0.139)
_Spline 3		**0.000**	0.000
	(se)	**0.000**	0.000
	(p)	**(0.070)**	(0.142)
Constant		**-2.637**	5.289
	(se)	**0.455**	5.828
	(p)	**(0.000)**	(0.364)

Note: Bold indicates significant results

The militarized interstate dispute data is more significant than that using level of hostilities. The power transition variable based on the modified CINC scores is statistically significant (the p-value is 0.016) and predicts an increased likelihood of conflict by 0.575. The power transition variable generated using the basic CINC scores is also significant (the p- value is 0.036) and indicates a 0.405 increase in the likelihood of conflict in the dyad. These results both provide support for my first hypothesis.

Consistent with the first model, the two other independent variables, relative growth rate and power parity, are not statistically significant. This is true for both the variables generated using the modified CINC score and those generated using the basic CINC score. Again, these models present no evidence for hypotheses 2 or 3. Again, the results for relative growth are consistent with Kim (1991) and parity contrary to his findings.

As in the first model, both contiguity and joint democracy are significant and negatively associated with the incidence of interstate conflict. It is interesting to note that the role of contiguity is actually that of a pacifier. Contiguity decreases the likelihood of conflict by 0.160 (the p-value is less than 0.001) in the modified CINC logit, and decreases the likelihood of conflict 0.114 (the p-value is 0.012) in the basic CINC logit. And again, joint democracy decreases the likelihood of conflict by 0.139 (the p-value is less than 0.001) in the modified CINC model and by 0.143 (the p-value is less than 0.001) in the basic CINC model.

The balance of power variable is not significant in either for either model and for either definition of conflict. It is also interesting to note that the peace years and their derived splines have little significant relationship with the incidence of conflict.

Kim's (1989, 1991) results indicate that the environment most conducive to conflict is the existence of power parity between the two states. He finds some support for the power transition

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theory, as does this study, but would more accurately be considered an argument against the

balance of power theory.

Table 9. Marginal Effects for Major Conflict

	Modified CINC		Basic CINC	
	Y=0.012	Y=0.022	Y=0.009	Y=0.021
	X=0	X=1	X=0	X=1
Power Transition	0.012	**0.011**	**0.013**	**0.013**
(se)	0.008	**0.006**	**0.005**	**0.004**
(p)	(0.147)	**(0.066)**	**(0.007)**	**(0.006)**
Relative Growth	-0.002	-0.003	-0.040	-0.089
(se)	0.022	0.041	0.043	0.094
(p)	(0.933)	(0.933)	(0.352)	(0.345)
Power Parity	0.000	0.000	0.029	0.064
(se)	0.000	0.000	0.040	0.087
(p)	(0.802)	(0.803)	(0.469)	(0.462)
Balance of power	0.000	0.001	8.452	0.177
(se)	0.00	0.001	9.272	0.202
(p)	(0.318)	0.315	(0.385)	(0.383)
Contiguity	**-0.002**	**-0.003**	-0.001	-0.002
(se)	**0.001**	**0.002**	0.001	0.001
(p)	**(0.050)**	**(0.055)**	(0.245)	(0.223)
Joint democracy	**-0.002**	**-0.004**	**-0.002**	**-0.004**
(se)	**0.001**	**0.001**	**0.001**	**0.001**
(p)	**(0.005)**	**(0.010)**	**(0.010)**	**(0.004)**
Peace Years	0.000	0.000	0.000	0.001
(se)	0.001	0.001	0.001	0.001
(p)	(0.550)	(0.551)	(0.471)	(0.466)
_Spline 1	0.000	0.000	0.000	0.000
(se)	0.000	0.000	0.000	0.000
(p)	(0.490)	(0.493)	(0.421)	(0.420)
_Spline 2	0.000	-0.000	-0.000	-0.000
(se)	0.000	0.000	0.000	0.000
(p)	(0.367)	(0.373)	(0.315)	(0.314)
_Spline 3	0.000	0.000	0.000	0.000
(se)	0.000	0.000	0.000	0.000
(p)	0.155	(0.168)	(0.139)	(0.140)

Note: Bold indicates significant results

The next two tables present the marginal effects of the dependent variables when the power transition variable is set at either 1 or 0 and the other independent variables are set at their means. The marginal effects are displayed to address the percentage change in the dependent variable when the dichotomous independent variable, the power transition, is set at success ("1") or failure ("0") holding all other values constant. Table 9 presents the marginal effects for the first model, that where the level of hostilities reaches at least the use of force.

The predicted values for conflict are presented above the set values of the dichotomous power transition variable. These indicate a substantial change in probability of conflict based on whether or not a power transition occurs. The percentage change from no transition to a transition is approximately 83.33% when the transition is based on the modified CINC scores of the two states. The percentage change in y in the event of a transition based on the basic CINC score is 133.33%. The substantial effects of the power transition are evident in both models.

Table 10 presents the marginal effects for the models using militarized interstate disputes short of the level of war or the use of force as the measure of conflict.

The percentage changes in the predicted values for the dependent variable are also significant for this measure of marginal effects. For the model run using the modified CINC score, the percentage change in the likelihood of minor conflict is 67.57%. Using the basic CINC score, the likelihood of minor conflict increases by 67.74%.

The results strongly suggest that in the event of a power transition based on either measure of power, the likelihood of conflict increases. When conflict is measured by level of hostilities reached, the basic CINC score predicts a much higher likelihood of conflict. When conflict is measured by a militarized interstate dispute, the modified CINC is a better indicator. This discrepancy demands further discussion.

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Table 10. Marginal Effects for Minor Conflict

	Modified CINC		Basic CINC	
	Y=0.037	Y=0.062	Y=0.031	Y=0.052
	X=0	X=1	X=0	X=1
Power Transition	**0.027**	**0.026**	**0.015**	**0.017**
(se)	**0.013**	**0.011**	**0.007**	**0.008**
(p)	**(0.041)**	**(0.014)**	**(0.038)**	**(0.034)**
Relative Growth	0.000	0.001	0.109	0.180
(se)	0.040	0.064	0.079	0.132
(p)	(0.983)	(0.983)	(0.038)	(0.174)
Power Parity	0.000	0.000	-0.073	-0.121
(se)	0.000	0.001	0.082	0.136
(p)	(0.726)	(0.727)	(0.369)	(0.371)
Balance of power	-0.001	-0.002	-0.320	-0.530
(se)	0.002	0.002	0.194	0.324
(p)	(0.461)	(0.459)	(0.099)	(0.101)
Contiguity	**-0.006**	**-0.009**	**-0.003**	**-0.006**
(se)	**0.001**	**0.002**	**0.001**	**0.002**
(p)	**(0.000)**	**(0.000)**	**(0.014)**	**(0.012)**
Joint democracy	**-0.005**	**-0.008**	**-0.004**	**-0.007**
(se)	**0.001**	**0.002**	**0.001**	**0.002**
(p)	**(0.000)**	**(0.000)**	**(0,000)**	**(0.000)**
Peace Years	0.001	0.002	0.001	0.002
(se)	0.001	0.002	0.001	0.001
(p)	(0.295)	(0.298)	(0.220)	(0.220)
_Spline 1	0.000	0.000	0.000	0.000
(se)	0.000	0.000	0.000	0.000
(p)	(0.178)	(0.181)	(0.164)	(0.163)
_Spline 2	-0.000	-0.000	-0.000	-0.000
(se)	0.000	0.000	0.000	0.000
(p)	(0.124)	(0.128)	(0.142)	(0.140)
_Spline 3	**0.000**	**0.000**	0.000	0.000
(se)	**0.000**	**0.000**	0.000	0.000
(p)	**(0.069)**	**(0.073)**	(0.146)	(0.143)

Note: Bold indicates significant results

A closer look at the data indicates that using the modified CINC score accounts for many

cases in which the contemporary literature has had to rely on satisfaction. In every case that

there is a modified CINC-based power transition, there is a basic CINC-based transition. The

difference is that the modified CINC score eliminates many of those cases in which a power

transition occurs, but conflict does not. The most striking example is that of the United States and the United Kingdom. The United States does not appear as a major power until 1898. Soon thereafter a basic CINC power transition occurs between the United States and the United Kingdom. The power transition theory, as well as the history of the two states at that time, would indicate a likelihood of conflict. Nevertheless, no conflict occurs between the two. This is explained using my measure of power: the modified CINC score-based variable does not indicate a power transition between the two states. The United States did not have enough likely support from other major powers to surpass the United Kingdom's power capabilities. To provide a more recent extension, China is likely to surpass the United States in domestic capabilities in the near future. Recent studies have argued that in order to maintain a relatively peaceful international system, the United States, as the dominant state, must ensure that the rising challenger, China, is satisfied (Kugler 2006). This study shows that the likelihood of conflict between the two is unlikely, as the capabilities of China are not great enough to compare with those of the United States as well as its likely supporters.

VI. Summary and Conclusion

Power is an elusive concept within the interstate conflict research, and is difficult to define. The power transition literature has tended to avoid the inclusion of external power, arguing that it is only domestic capability transitions that create the context for major power conflict. This study argues that this requirement is too restrictive. Because measures of power capabilities should include some external sources, this study presents a measure of power that uses domestic capabilities and an index as an indicator of likely third party support. I compare variables based on this measure of power with those using only the basic Composite Index of National Capabilities. These measures are compared across two conceptualizations of conflict: militarized interstate disputes and another based on the level of hostilities. The results suggest substantial support for the power transition theory presented by Organski and Kugler (1980). Finally, this study presents the marginal effects of the change in likelihood of conflict in the event of a power transition. The results show that each time a power transition occurred, the predicted likelihood of conflict increases considerably.

The modified CINC score developed in this study provides support for the power transition theory. The findings suggest that a power transition is significantly likely to increase the likelihood of major power conflict. This is the most basic argument of the theory, and the use of the modified CINC score does not call it into question. My measure does exhibit some overlap with the basic CINC score, which also shows significant support for the power transition theory. With regard to my primary independent variable, the power transition, the results are significant for both measures of conflict. Although the basic CINC score-derived power transition is more significant hostility levels reach either the use of force or war, my measure is more significant when conflict is measured as a militarized interstate dispute. The differing

results largely suggest that there needs to be more discussion on how the definition of conflict. The number of great power wars is especially small, and thus difficult to study quantitatively. Therefore this study gives two variables for conflict, slightly relaxed from Organski and Kugler's (1980) original definition of major power war.

Furthermore, the fact that this new measure eliminates a significant number of power transitions which do not lead to conflict shows that the use of satisfaction as a separate measure is not necessary. Satisfaction is endogenous to this new measure of power. Kugler (2006) argues that keeping those rising powers (such as China) satisfied will be the key to preventing major power conflict in the event of a domestic power transition between the United States and China. However, the results of this study show that the United States has some time before a true power transition will occur, if at all.

Finally, this study finds that the power transition is the most likely indicator of conflict amongst the independent variables. Kim (1989, 1991) found that power parity is actually the most conducive to conflict. This observation shows that the power transition theory is actually best supported when using the modified CINC score. Kim's theoretical arguments are strong, but his measure of power is flawed in the assumption of alliance reliability.

In the great power conflicts outlined by Organski and Kugler (1980) and those by Kim (1989, 1991), with only a few exceptions, the participants knew who their likely coalition partners would be. As stated previously, regional interests may have a strong impact on the likelihood of conflict (Danilovic and Clare 2007). In this vein, it may be useful for future studies to include modified CINC scores that include lesser powers or even all states in the international system when calculating modified CINC scores. Although there is a large degree of correlation between the two, the measure of power capabilities presented by this study fills a major gap in

the power transition literature. The great powers of the international system have specific

relationships with one another that must be accounted for in the anticipation of conflict.

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Vita

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