I've Got the Power: War, Rational Perceptions of Power, and Military Emphases; how disagreements about relative power stem from the relationship of the dyadic partners' military emphases

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Introduction

In 1937, the Imperial Army of Japan attacked the single most populous nation in the world, the Republic of China. The resulting war lasted about eight years and resulted in the deaths of well over twenty million people, the majority of whom were civilians (Anderson 2005). Japan arguably had the best equipped, and most advanced army in the world, and spent more than twice as much money on their military as China did (Bennett and Stam 2000). Initially, the Japanese trampled the Kuomintang Army (KMT), their air strikes and artillery wreaking havoc on the underprepared, underfunded Chinese. Rebellions, corruption, and pervasive foreign influences had severely weakened the Chinese state, hampering any real progress toward industrialization and modernization. Moreover, the size of China's total armed forces was split at the time the war broke out, due to the ongoing communist revolution led by Mao Zedong. After a string of initial victories at Shanghai, Nanjing, and Wuhan, the magic of the Japanese offensive began to wane, and the war began to equalize.

After the seriousness of the Japanese threat became apparent, the communist forces began to coordinate (a sort of hostile cooperation) with the KMT to turn back the invasion. In spite of its large and well-armed forces, the Japanese began to lose an astonishing amount of manpower and equipment to a massive guerilla warfare campaign by the Chinese defenders. By 1941, the Japanese and Chinese were locked in a stalemate, with neither side making much ground. The Japanese had more advanced weapons and technologies, but the massive number of their enemies and a correspondingly efficient guerilla strategy by the Chinese hampered any success. Conversely, in spite of the their overwhelming numbers, the advanced technologies of the Japanese air and ground forces decimated economic and military production which appeared to have neutralized any real manpower advantage that the Chinese
might have had. Only once the U.S. and the USSR became involved in the war against Japan, and a large amount of military aid was given to the KMT and the Red Army, respectively, was progress made to slowly take back their nation. Ultimately, it was the U.S. atomic attacks that brought the Japanese to unconditional surrender, forcing them to give up their bloodstained conquests in China and elsewhere (Jansen 1975).

Japan, as an insecure island nation with few natural resources, obviously had a powerful incentive to start war with China and invade its territory. However, Japan’s pursuance of war did not lead to an accomplishment of its goals and was very costly in terms of human lives, military equipment, and other expenditures, making the war severely counterproductive. But in the decade leading up to 1937, through Japan and China’s quarrels and skirmishes, it became very evident that Japan had the larger (enlisted at the time) and better-equipped army. Since Japan was clearly militarily preponderant, why did Japan and China fight instead of coming to some sort of agreement that reflected the balance of power? What is the cause of this disagreement? Could something be done to prevent similar disagreements in the future?

Perceptions of Relative Power as a Rational Cause of War

To answer consequential questions like these, I look to current theories on international conflict, specifically those based somewhat on the tenets of neorealism. According to neorealism, in the international system, states are responsible for their own survival. Though liberal theories and research have abounded, they have great difficulty explaining what about democracies make them uniquely noncombative (at least with each other), whereas neorealist explanations for war have both a consistent casual logic and empirical foundations that provide them a large degree of real-world accuracy (Geller and Singer 1998).

States may participate in IGOs and NGOs and vote in the UN General Assembly, but when the chips are down, they cannot count on help from others for protection; each state must provide their own base of power by which to defend its territorial sovereignty (Waltz 1979). For this reason, every autonomous nation in the world has some sort of military organization that it uses for defense and that they use as a deterrent to prevent other states from taking advantage of their resources. Having a military gives a state power, and power means survival. Each state, however, has a comparative advantage of one of two types of military power: manpower or technology. Although this might seem like an oversimplification, in terms of overall military doctrine, manpower and technology are the two basic sources of military power, and doctrine and emphasis is primarily focused on one or the other.

Generally speaking, states with good economies tend to have an advantage in and, therefore, specialize in, producing military technology, and those with an advantage in human capital tend to specialize in armies that are well populated. These emphases allow a state to build its power in the most efficient way and to gain the most utility from its expenditures. While states may develop both aspects in their military buildup, when developing power and, consequently, when engaging in conflict, a state has a comparative and primary advantage in one of the two emphases.
When states find those around them engaged in military buildups, the natural inclination they have is to balance against them; in other words, they increase the size or strength of their armies accordingly. If a state sees another increasing its power, it will most likely escalate according to its comparative advantage. It is generally agreed among political scientists that balance between dyads is safer than any imbalance, since states with larger militaries may take advantage of smaller states (Berohn and Blimes 2008). As with the Second Sino-Japanese war, full-blown conflicts are costly, and there is always more to lose by going to war as compared to negotiating terms that are marginally acceptable to both sides (Fearon 1995). This concept, as entailed in the bargaining model of war, dictates that states will pursue war only when they believe that they have some advantage in doing so over what they might gain in negotiations.

Many international and game theorists have discussed reasons why two states might decide to go to war over the possibility of some sort of settlement, but none have addressed the effect of the military emphasis in this context. These military emphases relate directly to how power is viewed and how dyadic partners perceive each other’s power. Perhaps two states with manpower emphases might accurately gauge one another’s relative power, as will two states specialized in technology. What of the dyad where one has a technology emphasis and the other a manpower emphasis? How do dyads view the advantages in military power? Is one emphasis seen as better than the other? Will one emphasis encourage a state to be more aggressive?

These questions of disagreement over relative power are particularly interesting when viewing the relationship that the U.S. currently has with many of the military powers in the world. In sharp contrast to its forces in 1937, as of 2007, China has the world’s largest military, with about seven million total troops at their disposal. The U.S., on the other hand, if necessary, could have about three million soldiers available in case of a large-scale conflict. Obviously, in that dyad, China has an absolute manpower emphasis. As one might expect, however, in 2007 the U.S. spent about ten times more than China did on military spending, clearly giving the technology emphasis to the U.S. (CIA 2008). Unfortunately, these figures do little in determining who would win a conflict should one occur. Would the U.S.’s technology beat China’s vast troops? Alternatively, would China’s incredible numbers overwhelm the more advanced but far fewer U.S. forces, as they did in 1937–41 to Japan? Because it is difficult to equate the technology and manpower balance, conflict could arise over each side thinking that they have the advantage. By creating a model that shows how differing military emphases increases the likelihood that a state will be aggressive, policymakers may determine which countries might go to war based on their emphasis and then work to prevent it.

**Literature**

My model is closely related to much of the work done regarding the importance of military doctrines and to the rational causes of war. The first aspect of my model, that of divergent military doctrines upon which an emphasis is built, is based on the
classical work done by Barry Posen on military doctrines and why nations adopt them. Posen (1984) argued that nations develop grand strategies as their long-term goals for security, and then they develop military doctrines that give them the plan on how to go about meeting that strategy. Military doctrines may be offensive, defensive, or deterrent based. Offensive doctrines rely on destroying an opponent's armed forces—traditionally, as quickly as possible, while defensive doctrines tend to emphasize the determination to deny an opponent a particular goal. He argued that offensive doctrines tend to cause more trouble, if only because a state looks like it is going to fight, and its advantage often lies in doing so first (Van Evera 1999). Military doctrines and force sizes are not easy to hide, so the uncertainty about when a nation will fight derives from their private intentions. My model suggests that military doctrines tend to be created based on the comparative advantage that a state has in conjunction with its grand strategy and will tend to be offensive or defensive mainly according to whether it has a technology emphasis or a manpower emphasis, respectively.

The other tenet of IR theory that my model rests upon is neorealism; namely, that states are the major actors in the international system, that states are unitary and rational, and that states' primary concern is security. By creating the supposition that states are unitary, I may observe and predict how states as a whole respond to situations, allowing my theories to be more generalizable. Obviously, leaders run states, but, according to Waltz, states may also be viewed as entities that make decisions and execute them, more or less as a whole, without sacrificing accuracy in describing their behavior (Waltz 1979). Neorealists assume that security is the most important factor when a state is making decisions because the system in which the international community exists, intentionally or unintentionally, is anarchic. As I mentioned before, if states want to exist, they must make that happen through their own actions and precautions.

Neorealists also assert one particular reason that might lead to war is the misperceptions that states have about relative power. Van Evera (1999) states that false optimism on the outcome of war is a major cause of states engaging in conflict with one another. For example, country A might think its power balance with country B lies greatly in its favor, while in reality they do not have an advantage. Country A could then start a conflict based on an imaginary view of the balance of power between the two, and war commences. Whether or not country A was right, conflict was initiated because A perceived itself stronger and their chance of success greater. Country A, instead of negotiating, saw itself capable of getting what they wanted through force. Where this argument is left lacking is in the exclusion of rationality as a factor in the decision-making of the state, and the influence that it has on the perception of the balance of power.

The principle of rationality is the keystone to neorealism, and it is essential because it allows for consistency in the predictive power of a theory. Rationality signifies that states are capable of a cost-benefit analysis of their position with the information available to them, allowing them to consciously and dispassionately rank and choose the best option. If A can look at two courses of action and decide that action X is in its
self-interest more than action $Y$, then we could rightly call $A$ rational. This concept is uniquely tied to the bargaining model of war, as established by Blainey (1988), built upon by Fearon (1995), and many others. Though none have directly investigated how the bargaining model explains what causes misperceptions to arise, they have established the logic of war as a rational choice and why states would choose it.

Like Van Evera, Blainey asserted that wars begin because of a disagreement about relative power, with each assuming that they have a better chance of getting what they want through fighting. If $A$ thinks that $B$ is significantly weaker, yet $B$ demands more than $A$ thinks that they should, $A$ might go to war-with a reasonable expectation to come out as the victor. However, if $B$ is stronger than $A$ had previously supposed, then $B$ is right to have high demands, and $B$ will bargain with the assumption that they can beat $A$. This leads to both sides overestimating their own relative power (Blainey 1988).

Fearon argued that this possibility can only be rational in certain circumstances. He held that if two states, $A$ and $B$, both have the same information about the predicted outcome, then they should both come to the same conclusion. He cited Blainey’s reasons for the conflicting expectations of bargaining dyads, and concluded that the only rational explanation he gave is that states have private information, or the real intentions or capabilities about the outcome of a conflict. Therefore, according to Fearon, disagreements about power may only be rationally explained by one side having private information. Moreover, states usually have an incentive to have private information, because states do not want their military limitations to be public knowledge, as such could lead to exploitation by larger powers. He also argued that bounded rationality (or the differential ability of states to cope with the complexities of a situation) contributes to a lack of information, and therefore could lead to conflict, but he asserted that this is not entirely rational either (Fearon 1995). These conclusions, however, fail to consider that variables such as manpower and technology do not easily equate to each other. If two states are considering war, and they have different military emphases, both sides will judge the probable outcome by their own emphasis. Therefore, the rational decision made by each side cannot be assuredly equivalent.

Smith and Starn’s bargaining model of war addressed this problem, as it takes a different approach than Fearon and other’s by eliminating the “common prior” assumption (Smith 2004). A common prior is information that is shared by all of the actors in a game before it starts. It has been commonly argued that if all actors have the same information about a situation and are both rational, they will come to the same conclusion about what that information means. According to the model suggested by Fearon, both $A$ and $B$ have the same prior information about a possible conflict, so the probability of success for each is the same in both player’s minds. The distinction in Smith and Starn’s model is they excluded this prior common knowledge that $A$ and $B$ supposedly have. The basis for this exclusion is that such a model more accurately reflects reality, in which no two states actually possess the exact same data (and therefore interpretation) on the other that they have for themselves. In
other words, A has the same intelligence on B as what B knows about itself, and vice versa, with the caveat that B also knows what A knows, and A what B knows. This means that both sides are aware of what the other side knows about them.

For example, China knows the same about their own capabilities as the U.S. does, and China knows this. The same holds true for the United States. However, even though both sides might have the same intelligence about each other’s capabilities, both still might very well disagree on the impact of that information, or, as in the above example, who between the U.S. and China would be the ultimate victor if the two were to fight. I assert that this is because of their differing military doctrines that stem from their divergent emphases of military power. This is what Smith and Stam called the international equivalent of “agreeing to disagree.” There are concerns that this model is not rational; however, logically we can see how that is not the case. If two states do not have common prior assumptions, we could accurately predict that those states might choose different actions based on the same information. The key is that those choices themselves are still rational, as they have been selected from a group of possible alternatives and have been ranked as being the best.

Reiter, along similar lines as the above arguments, determined that one of conflict’s goals is to resolve the ambiguity surrounding who has the most relative power. He asserted that since limited conflict reduces the uncertainty of the outcome of a hypothetical absolute war, it is useful to determine the real balance of power between dyads (Reiter 2003). He quoted Rosen, who compared antebellum bargaining to two men fighting in a darkened room, unable to see the true strength of the other until they engage in some limited combat. Then, the weaker of the two will be quite aware of his shortcomings and will try to settle the dispute (Rosen 1972). This concept reiterates the idea that two rational agents are unable to have the same prior information about a conflict before it occurs. My hypothesis is to successfully explain why it is that these rational agents cannot come to the same conclusion.

Berohn and Blimes come from a slightly different angle, contending that disagreements over balance of power and resolve are unlikely to be responsible for the causation of war (2008). They hold that military power is not hard to discern, and disagreements about relative power are not likely to be responsible for conflicts, although there does exist some minor vagueness. They quickly observed that such vagueness does not extend far enough to cause states to grossly overestimate their fighting power to the extent that they are bargaining for what they cannot hope to obtain through force. Their main argument is nuanced and careful in its distinction, asserting that instead, disagreements will occur between states when they each focus on divergent determinants when considering relative power. This key distinction is what gives weight to my hypotheses: disagreement about the distinction between military emphases is what makes bargaining between states, based on their relative power, difficult to reconcile. Country A and country B do not misunderstand the fact of each other’s military power, rather, they disagree as to the strategic impact of that power. Such disagreement will cause A to miscalculate
the efficacy of B's power, and vice versa, each misreading the impact of the other's military power.

**Theoretical Framework**

The differences between estimations of power as a result of divergent military emphases create dangerous misperceptions of the relative balance of power. These different emphases and the resulting misinterpretation of relative power will lead countries to forego possible bargaining scenarios to engage in conflict. Therefore, I postulate two hypotheses based on this uncertainty that differing military emphases bring. My first hypothesis states:

\[ H_1: \text{States in emphasis-oppositional dyads have greater probability of engaging in conflict, ceteris paribus.} \]

An emphasis-oppositional dyad is a pair of states where one has focused their emphasis, in either manpower or technology, differently than their dyadic partner. The hypothesis states that the military emphasis a state pursues creates the uncertainty about the outcome of war when in an emphasis-oppositional dyad.

In addition to the basic assumptions of neorealism and bargaining models, there are two additional assumptions upon which this hypothesis lies. The first is, as argued by Berohn and Blimes, that states can have a relatively approximate estimation of another state's military power, and will not grossly under- or over-exaggerate their opponent's actual forces. This means that misperceptions about relative power are not coming from lapses in one country's intelligence network or in one side's possession of a secret army of which no one knows. Besides the incentive that states have to spy on their neighbors and enemies, states also have a large incentive to disclose knowledge of any weapons or armies that might give them greater bargaining power; therefore, it is not likely that any nation would keep any secret that might greatly affect the outcome of a conflict. Consequently, it is not disagreement over actual power that leads states to war but a misperception about what that power equates to on the battlefield.

The second assumption that I use to support my hypothesis is that because manpower and technology emphases have different strengths and weaknesses, it is virtually impossible to know, prior to any conflict, which one of those emphases will prove to be superior. This stems from the fact that wars have been won using both superior technology and superior manpower.

One might argue that if the U.S. fought China, their technology would win them the war. However, going back to the example I gave in the introduction, Japan clearly had a far more advanced army than did the Chinese in 1937. The Chinese however, had hundreds of millions more people at their disposal and, accordingly, did not negotiate a settlement because they obviously felt that they possessed the strength in numbers sufficient to withstand invasion. Their ability to quickly turn their large population in to a massive army changed the way in which they viewed the bargaining process with Japan, preventing agreement. Moreover, the Japanese, from their recent experiences against the Chinese and the Russians, believed that
technology was what was vital to military success, and they believed that their technologi­cally superior forces would quickly trump the numerous but poorly-armed Chinese armies. The Assessment of Chinese Resistance Potential report issued by the South Manchurian Railway Company in 1940, a report designed to evaluate military, economic, and political resistance to Japanese invasions, indicated that while the Japanese were fully aware of the capacity for mass mobilizations of the Chinese armies, these were not seen as a sufficient deterrent to prevent or refrain them from using military action (Li 2008). Since both sides disagreed with the others' conclusions about the outcome of war, they did not feel that bargaining was in their interest.

From this example, it is important to note that though both sides disagreed over the outcome, the technology intensive state was the more confident of victory and were the aggressors in that conflict.

From this observation, I draw the second hypothesis:

\[ H_2: \text{In an emphasis-oppositional dyad, the state with a technology advantage has a higher probability of initiating conflict than will the manpower state, ceteris paribus.} \]

In a given dyad, a state’s military emphasis in technology leads to increased aggression against a manpower-based state. This comes as a result of two logical reasons. The first point has its origins in a rational understanding of a technological advantage: one on one, technology beats no technology. The soldier with a club will likely lose to the soldier with a steel sword, just as a soldier in a tank will beat the soldier on a horse. This rational perception of military advantage encourages many countries to invest in military technology. There is considerable evidence that one of the major contributors to Germany’s optimism for war against Russia in both world wars stemmed from their leaders’ rational beliefs that Germany’s enormous investment in technological superiority would (and actually did) give Germany the chance of defeating Russia’s larger armies (Van Evera 1999, 19–21).

Japan’s techno-nationalization emphasized that state security could only be achieved by having a military technologically superior to its foes. The victories attained in the Russo-Japanese War only served to reinforce these policies and led to continued aggressive behavior against China (Jacoby 2008). It could be that the U.S.’s losses to Japan during the first years of their involvement in WWII taught the U.S. a lesson on the technological emphasis, if the manpower ratios are 1:1, the more advanced force will win. This leads many developed nations to the rational assumption that technology always beats manpower. They will see their advantage as being superior to a manpower emphasis and will enter bargaining processes with a manpower state garnering this expectation. This will lead to a decreased incentive to negotiate with manpower states and will increase the likelihood for aggressive activity on the part of the technology state.

The second point is that technology-based militaries often have an increased ability to project their power. Whereas a manpower-based military must mobilize
vast numbers of soldiers and transport them along with munitions and supplies, technology-based militaries may often travel faster and attack more effectively, requiring far less time and support to prepare the strike than the first. Therefore, not only will the technology state generally call the advantage to their favor strictly because their weapons are more advanced, they will also perceive the natural advantage they have in moving attacking forces to the target quicker, and the advantage they have in first strike and surprise attacks (Van Evera 1999).

To see an example of this difference, we can look to the differences in the Chinese armed forces and the U.S. armed forces. The U.S. has a massive and powerful navy, numerous military bases abroad, and relies on a vast array of transport and attack helicopters and aircraft to project its power. The Chinese military, on the other hand, though far more numerous, lacks the numerous air and sea fleets that the U.S. depends on to maintain its hegemony.

Moreover, nations that develop a technology-based military also do so because technology will reduce the number of soldiers exposed to harm and maximize opponent casualties. States that rely on technology do so because of a certain human cost sensitivity that manpower states do not share. This would lead them to view a possible victory in terms of the highest kill-ratio (enemy casualties to friendly casualties), whereas a manpower-based state relies on its ability to throw as many people into the fight as necessary to overwhelm their opponent. As a result, the technology state overestimates its ability to get to a perceived acceptable bargaining space, forcing them to comply by driving the other side's casualties high, while the manpower-based state does not attach the same level of acceptance for losses in manpower, and does not consider the fight lost. A technology-based state is also more likely to initiate the conflict, because it relies on a different cost-assessment metric than does a manpower-based state.

In other words, technology-based states tend to view themselves as more powerful and will inflate how much they deserve in a bargaining situation. Manpower-based states, on the other hand, will tend to view themselves as having great power, but in such a way that they will undervalue the power of their technological opponent, and will not give in to the demands of their foe because they perceive them to be over inflated. The technology state will try to start a fight, because they think they will win, but the manpower state will simply not back down, because they think they can win.

An important assumption for this hypothesis is that a military technology emphasis gives more advantage to offensive tactics when facing a manpower-based foe. Accordingly, I would contend that a manpower-based military would be far more effective as a defensive force against an aggressive technology-based opponent. A technology-based military requires heavy infrastructure and strong economic support for its fight, favoring a scenario where the fighting is done abroad, far away from production facilities and civilian workforces. Moreover, advanced weaponry is far more specialized and accurate than older weaponry in general, providing a greater advantage for planning out offensives against enemy forces and executing first strikes. Conversely, a manpower-based military has its advantage at home, using...
their knowledge of terrain, local customs (to avoid detection), and partisan or guerilla warfare to grind down a technologically superior force. Engagements in WWII between the massive yet poor Soviet army with the technologically advanced German armies illustrated this point well. Germany's technology favored aggressive, offensive tactics, while the large, ill-equipped forces of the Soviets eventually fought off their invaders with sheer numbers.

My hypotheses imply that if two nations share the same specialization, their likelihood of starting conflict will be less than those dyads that do not share the same emphasis. This is due to a diminished uncertainty about who would be the victor. If both states are manpower intensive, then the states can gauge the manpower of the other through normal means and decrease their uncertainty of the probability of victory. Because they will have a more accurate gauge, the balance of power will be clearer, and bargaining will be far more profitable for both sides.

**Alternative Hypothesis**

The assumptions that I have outlined in my hypothesis are based on a perspective of war as part of the bargaining process. It is possible to argue that war is not explicitly bargaining, and that once armed conflict begins, bargaining is at an end. Whereas bargaining occurs on two sides, war is started by one and is reciprocated by the other out of necessity. States are not generally inclined to allow other states to take their territory or resources, and they are compelled to fight back, even when it means fighting solely out of desperation. This means that the target nation's response has nothing to do with misperceptions of relative power, rather from a view of the state as an indivisible entity with a nationalistic need to preserve its borders, resources, and identity. In other words, and using my first case, this hypothesis would argue that China had no choice but to fight Japan, in spite of any perception that they might have had about Japan's relative power. They were constrained to fight because it was their land, their nation, and their home, and it was not something that they could or would simply turn over to their aggressors.

This alternative to my theory reflects solid logic and is largely upheld by historical record, at least, on the surface. But underlying this argument, there exists some inconsistencies. Does bargaining really end once armed conflict breaks out? If this were the case, then why would aggressor states stop their attacks until obtaining their optimal outcome using their military force—regardless of what the target nation is doing? I would argue that states only fight until the ambiguity of relative power is resolved. In some cases, such conflict can last a long time; in other cases, only a few hours pass before the victor becomes apparent. Whatever the case, once the mystery over the balance of power is gone, states almost always agree in the short term on what the agreement should look like based on that balance. If one state invades another, the target state fighting back is simply a rejection of the aggressor's attempt to coerce a more favorable agreement than could be agreed upon without fighting.

That leads to the next problem, or why attacking nations have not learned by now that target nations almost always defend their homeland. If war is ex-post ineffi-
cient, as Fearon suggested, the aggressor state should seek to find some sort of agreement with the target state that avoids war (1995). According to this same paradigm, if that aggressive state perceives that it is unable to find an agreement with the target nation that is less costly than invasion, they will certainly count on the other nation fighting back, mainly as a rejection of that means of bargaining. It is reasonable to say that Japan did not expect China to back down once the main invasion commenced but was counting on its military preponderance to allow for a better outcome—even after measuring the costs of war—than without it. Therefore, Japan’s perception of what its military emphasis meant on the battlefield was precisely relevant to their hopes of an easy victory and their decision to go to war.

The last problem with the alternative hypothesis is that it implies that target nations will fight when they have no hope of gains of any sort. However, Reiter and Stam (2002) addressed this perspective by asserting that target nations always fight back, and they provide three reasons to support this hypothesis. They argued that leaders’ domestic reputation, national pride, and international reputation; view of their state as indivisible entities; and their state is not something that they can or would bargain off to another sovereign, are all rational reasons to fight an invader. Obviously, target nations do not fight when they have a zero-percent chance of gain—they surrender.

A nation that hopes to achieve some goal, dealing with either domestic or international reputation, will fight even in the face of an overall loss. I argue that this mentality that target nations develop is what I call the hope of denial. This harkens back to Posen’s assertion that defensive military doctrines focus on denying the attacker their goals (1984). On some level, the target nation, which is most probably a manpower emphasis state, hopes to use its military to deny their attacker its aspirations—that hope comes from the disagreement over relative power based on oppositional emphases. The target is after some strategic goal whenever they provide resistance to invasion, and it generally relies upon the disagreement of power as the basis of that resistance. The goals might be to retain domestic popularity, or to prevent a strategic territory or resource from being taken, or even to bravely lose in the face of an impossible onslaught, but they entail a cost-benefit analysis that indicates that fighting and obtaining a smaller goal (short of victory) is better than surrender. It is that hope, or determination, that the state can obtain their goals that relies on the perception of relative power stemming from their military emphasis. The target state does not judge the technology state getting what they want as easily as they think, and the perceived benefit from denial and obtaining whatever other smaller goals is determined to be preferable to surrender.

Again drawing upon the first case I gave, China clearly had hope for strategic objectives by fighting the Japanese, and history bore out that they had good reason to, as the Chinese eventually held the Imperial Army back until Western help could arrive. Reiter and Stam argued that the Finns fought the Soviets in the 1939 Winter War for reputational reasons, and the leaders of Finland did not suffer politically, because they stood up to a much larger enemy that eventually beat them. These cases indicated
by Reiter and Stam are explained better by the logic of war as an extension of bargaining and the hope of denial rooted in oppositional emphases. Moreover, it also has the advantage of explaining for some nations’ instant surrender better than does the alternative. These responses tie directly in to the hypotheses that I have given, and, though in hindsight, the historical record supports the outcomes that they expressly predict. Thus, it is less likely that target nations simply fight out of pure despair and more likely that they still hope to obtain goals and deny their enemies, indicating that their decision is rational, and largely based on their perception of relative power in the dyad.

**Methodology**

For the quantitative analysis of my two hypotheses, I have used the same data set testing for two different dependent variables. The unit of analysis is conducted at the dyadic level, so the data I employed is a directed dyad-year dataset, which allowed me to analyze the data on all dyads at yearly intervals to determine if there is statistical significance in the correlations between my two independent variables and my two dependent variables. The data I used came from the EUGene program, version 3.203, as developed by Bennett and Stam (2000). I used this program to create a data set that ranged from 1816 to 1990, and across all likely dyads, including major powers. The differentiation over which dyads are used is based on a reasonable logic. It is rather useless to see if Uruguay and Tajikistan ever come into conflict considering their minute military projection capability and the great distance between them. However, major powers are capable of fighting any nation anywhere in the world. This dataset takes such considerations into account, including only contiguous states and major world powers. The data that the program uses derives from the Correlates of War 2 data and its subsets, the National Material Capabilities data, and the Militarized Interstate Dispute data. The NMC data includes yearly statistics such as a state’s military personal, population, certain industrial capabilities, energy production, urban population, and total population. The MID data contains the yearly numbers for the types of disputes between countries, when they occurred, and their severity.

To operationalize my two hypotheses, I have recalculated some data to create accurate measures for my dependent and independent variables. My first dependent variable is interstate conflict with over a thousand casualties, with consistent military engagements between at least two states, in others words, what we might consider a state of war. I created the dependent variable war to account for the MIDs that were ranked over twenty (coded as “Begin interstate war”) on the “highest level of action of the dispute” variable (cwhiacdt) (Ghosen 2003). If having uncertainty about outcomes due to an emphasis-oppositional dyad statistically increases the likelihood of the outbreak of major war, then this would affirm H₁. The other dependent variable, per H₂, the initiation of conflict, comes straight from the MID data as cwinit. This accounts for one state initiating the conflict with the other state in the dyad. If having a technology advantage correlates to the likelihood that a state initiated conflict, this evidence will support my second hypothesis.
The main independent variable for H₁ is whether or not a dyad has an emphasis-oppositional (one has the larger army and the other has the advantage in technology, or vice versa), resulting in a misunderstanding of relative power. To operationalize this, I created two sets of variables, tech and man. \( \text{Tech}_1 \) and \( \text{tech}_2 \) create a ratio of relative military technology by measuring the military expenditures in relative British pounds (from 1816–1913) and U.S. dollars (from 1914–99), and dividing each state's spending by the sum of the dyad's total expenditure. Similarly, \( \text{man}_1 \) and \( \text{man}_2 \) were created by dividing the total number of active military personnel of each partner by the sum of personnel in the dyad. The next step was to change those ratios into binary variables by running a test to create a new variable that tests if the ratio of tech or man for the first partner in the dyad was greater than that of the second partner's, and was assigned a one or zero if it was or was not, respectively.

I found it best to operationalize these advantages through binary variables where fifty one percent equals the advantage, because the important indicator here is not by how much a nation's military is that another's, but whether that state considered themselves technologically or numerically superior to their rival. Along these same lines, two states might not know the precise extent of military development or the exact number of soldiers at their dyadic partner's disposal (not that might even matter). However, they will have a reasonably accurate understanding of who maintains general superiority in both categories. History maintains that in almost all cases, leaders were not surprised at the size of the army or the weapons they used but only at the way those variables interacted on the battlefield. How leaders rationally conceive how these two factors interact will be a significant influence on the miscalculation of relative power.

To specify an emphasis-oppositional dyad, I set the variable mixed-emphasis, which is represented by a one if each partner has an emphasis separate from his counterpart. Not counted were the cases in which one partner had both advantages and where the other had none. This ensured that I did not account for states that are superior to others in every way, which could lead to spurious results from a correlation between absolute military power and war. The only cases that are measured by mixed-emphasis are those where the military emphases are mixed and will be indicative of the situation I was seeking to test.

In addition to mixed-emphasis, a standard set of control variables commonly used in similar studies includes the distance between dyadic partners, a joint polity score to control for any effects of democratic peace, the Composite Index of National Capability (CINC) score, and major power status. These control variables should be sufficient for the purposes of this analysis to show an initial correlation between the dependent and independent variables to support my hypotheses.

For hypothesis H₂, the independent variable is whether or not a state in a dyad has the technology advantage only—meaning that it is faced with a partner with a larger army. This variable derives from techdummy, and is aptly called techonly; only if the first partner in the dyad has an advantage in technology and not in manpower is techonly counted as a one. In this way, I can account for whether or not the initiating
partner had only a technology advantage, accurately testing my H₂ that a technology emphasis increases the probability that a state will be the initiating aggressor.

Unfortunately, there are some limitations on the actual data that bias against my hypothesis. Whereas measuring military expenditures is a good way to measure the military mindset of focus on technology, the data for measuring an emphasis on manpower only measures the actual size of the army. Nations that have a comparative advantage in manpower may or may not have a large army because the capacity always exists to expand the army with the large population they have available. Using the population would also lead to the same bias, since the size of population is not itself indicative of any particular military doctrine or emphasis. The example of the Second Sino-Japanese represents one of these cases, where the data shows Japan as preponderant in both expenditures and total manpower, though we know that the Chinese armies became much larger, and the official data does not include the Red Army, since it was a rebel army at the time. Also, in WWII, the data shows Germany having a larger army than Russia until 1945, even though it is well documented that Stalin simply conscripted more soldiers to replace those that were slaughtered by the Germans—an ability fueled by Russia’s massive population. Since this insufficient data presents a bias against my results, any significance represents a legitimate correlation which would stand to confirm my hypotheses.

Results and Implications

For H₁, the results from the empirical analysis indicated that a correlation indeed exists between war and emphasis-oppositional dyads. As seen in Table 1 (see Appendix), mixed-emphasis does prove to be statistically significant at the 1 percent level, even when controlling for the other variables, such as total state military capacity and the effects of democratic governments. The substantive significance is difficult to ascertain specifically, due to the rare nature of war. However, employing year and state fixed effects as control variables, which take into account any other variables that might be unique to individual states or occurrences over time, showed that the correlation between my independent and dependent variables remains strong.

Although many variables are dropped due to autocorrelation when state- and year-fixed effects are used, we can be sure that since the predicted correlation is there, the relationship is not a spurious one. These results represent a strong indication of a significant and positive correlation between my independent and dependent variable, in the direction I predicted. The analysis presents us with a high likelihood that H₁ cannot be empirically ruled out, and it must be seriously considered as affecting the likelihood of war.

The test for H₂ produced similar results, shown in Table 2 (see Appendix), though this time the analysis involved testing the techonly variable against the variable of the initiation of war. In this case, techonly proved to be statistically significant, controlling for the other variables. This includes controlling for the fixed effects associated with the previous years and fixed effects across states. While the control variables and fixed effects explain the majority of the variance in war, so does having a technology-only
advantage, and its statistical significance means that we also cannot dismiss either hypothesis based on the empirical analysis. Specifically against H₂, one might argue that any larger nation (and larger military budget) will naturally attack another nation just because they are bigger. The CINC score accounts for this possibility, but leaving it out I was unable to fully explain the amount of conflict started by technology-only dyadic partners. Equally as important are the democratic peace control variable. The variable controls for the effects of a nation not fighting or fighting due to norms or institutions of advanced democratic countries, so we know that these results are not influenced by effect of democracy. Therefore, both H₁ and H₂ have been confirmed inasmuch as there exists a correlation exactly as the hypothesis says that there should be.

The implications for the empirical confirmations of these hypotheses present some interesting problems. Because H₁ predicts that dyads with mixed kinds of militaries will be more likely to fight, this means that war is more likely between wealthy, developed nations that focus on military spending and advanced technology and poor, less-economically developed nations with armies focused primarily on the size and strength of their numbers. Although many political scientists might argue that those sorts of wars are initiated based on a misunderstanding of resolve, I would argue that resolve could only exist with a hope of inflicting damage. This resolve ultimately stems from a hope that out-manning a more advanced army will help them to hold out for longer than the advanced army desires. Smaller nations with larger armies will suppose that they can hold out longer against technology nations because of their manpower, ruining the advanced army’s spirit, and causing them to bargain for perhaps less than before.

Due to a partial confirmation of H₂, additional data on possible projections of military power of major powers should also be further developed. For example, although the U.S. has a standing army of three million soldiers, they could not all be pooled together into one location, unless perhaps the U.S. were to be invaded. Barring that possibility, the U.S. will not pull its troops out of South Korea, Germany, Japan, and all of the other bases in the world to feed them all into a single country, since this would hurt its global military projection. As it stands, this is not something that the empirical data take into consideration. In future research, additional thought should be taken for the amount of soldiers that a major nation may safely project without leaving itself or its military bases abroad defenseless. I would predict that once the limited projection of military power is taken into consideration, it will show H₁ and H₂ to be far more significant, since these militaries would have far less manpower and be more easily fooled by their technological might into starting a war.

Conclusion

Although a great deal more research needs to be done on this topic, the results have shown that this area of political science, understudied to be sure, merits additional scholarly investigation. The empirical analysis fails to discredit my two hypotheses, and the logic clearly has shown why states suffer from a rational misperception of military power based in the individual distinction that specific nations place
on them. A nation with a manpower advantage naturally sees manpower as the more important distinction and vice versa. This misperception is rational because no two nations start with the same information; any discrepancy in rational conclusions is to be generally expected.

Moreover, states with technology advantages will see their army as superior to any less-technical armies, their manpower notwithstanding, due to the natural superiority that technology provides on the battlefield. The predictive power of these hypotheses rest in their ability to generalize situations and create rational observations. If two countries come into dispute, and they have mixed emphases, war is more likely to occur, so alternative courses of action should be taken to prevent it. By identifying how wars are initiated, we may begin to create a world that ceases being a victim to war and may take appropriate action to save nations and people from its devastating effects.

APPENDIX

Table 1
Logit Analysis for Dependent Variable: War

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<tr>
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<th>Mixed Emphasis</th>
<th>Joint Democracy</th>
<th>Major Power</th>
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<th>Capabilities of Opponent</th>
<th>Distance</th>
<th>State and Year Fixed Effects</th>
<th>Statistical Summary</th>
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Table 1 Notes: Dependent variable war is a binary variable that represents all interstate disputes at the highest level of hostility according to MID v3.0 data. State and year fixed effects include dummy variables for each country and year of observation. Heteroskedasticity-robust standard errors are given in parentheses under estimated coefficients. Coefficients are significant at the *10 percent, **5 percent, ***1 percent significance level.
Table 2
Logit Analysis for Dependent Variable: \( C_{winit} \)

<p>| | | | |</p>
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Table 2 Notes: Dependent variable \( C_{winit} \) is a binary variable represent all interstate disputes that are initiated by the first dyadic partner, according to MID v3.0 data. State and year fixed effects include dummy variables for each country and year of observation. Heteroskedasticity-robust standard errors are given in parentheses under estimated coefficients. Coefficients are significant at the ~10 percent, *5 percent, **1 percent significance level.

NOTES
1. The Polity Score uses several generally accepted standards to rate nations on a scale from negative ten to ten in terms of their level of democracy. To control for the effects of the democratic peace, I created a dummy variable that indicated if both nations in the dyad had a polity score of seven or higher.

REFERENCES


Jacoby, Wade. 2008. “Japan’s Technonationalism.” Lecture for Political Science 150. 4 December,


