Asymmetry, Parity, and (Civil) War:
Can International Theories of Power Help Us Understand Civil War

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The concept of relative power is ubiquitous and long-held in understanding conflict. As a ratio of the weaker side's capabilities compared to the stronger side's capabilities, relative power ranges from extreme asymmetry (where the weaker side has almost no capabilities) to parity (where the capabilities of the two sides are equal). Power theories link relative power to international outcomes, especially armed conflict. In this essay, we examine the applicability of power theories to civil armed conflicts, involving a government and a rebel group.

Many theories of power and conflict build on Thucydides' adage of "The strong do what they can and the weak suffer what they must". These theories, however, provide only limited understanding of civil war. A different logic than that provided by international relations theory is required to understand civil armed conflict. This logic rests on the inability of the government to attack a rebel group directly if the rebel group engages in asymmetric warfare.

INTERNATIONAL THEORIES OF BARGAINING POWER AND WAR

Many theories of international conflict draw on bargaining models (see Reiter 2003 for an overview). Given its costs, war should occur only when at least one state is uncertain about the capabilities or resolve of the other, or when otherwise unwilling or unable to comply with a negotiated settlement. Banks' so-called Monotonicity Theorem regarding crisis bargaining formally demonstrates that "the probability of war is an increasing function of the expected benefits from war of the informed player" (Banks 1990, 600) in a game where one player has private information regarding his expected benefits and costs from war. Banks also shows that "the expected benefits from successfully concluding the bargaining short of war are also increasing in the informed player's expected benefits of war" (1990, 600). These expected benefits, in turn, relate to the relative power of the informed actor. From this, we see that as the

informed player reaches parity with the uninformed player, the probability of war reaches its maximum (though this need not be anywhere near unity). Empirical findings lend support to the hypothesis that interstate conflict is more likely when two states near parity (Kugler and Lemke 1996; Hegre 2008).

The dynamics of relative power (Powell 2006) are also relevant as expected shifts in relative power also affect choices and outcomes. Commitment problems are evident in "preventive war triggered by an anticipated shift in the distribution of power, preemptive attacks caused by first-strike or offensive advantages, and war resulting from a situation in which concessions also shift the military balance and thereby lead to the need to make still more concessions" (Powell 2006: 180). In each of these commitment problems, large, rapid shifts in the distribution of power may lead to bargaining breakdowns and war.

Power also relates to expectations in negotiation (cf. Banks 1990; Bueno de Mesquita and Lalman 1992; Wagner 2000). In general, the more powerful actor is expected to get more out of negotiation. In extreme cases of power asymmetry, neither conflict nor negotiation is predicted; instead, the weaker side is expected to tacitly agree with the maintenance of the status quo.

APPLICATION OF BARGAINING POWER TO CIVIL CONTESTS

While similar to interstate contests, civil contests are sufficiently different so as to alter the link between relative power and armed conflict. The main distinction is the nature of the rebel group itself. Rebel groups, unlike states, are not territorially based. A government recapturing territory does not imply the end of the rebel group.

Because states are territorial entities, removing an opposing government and occupying its major cities is a way to conquer a state. Such a threat of invasion and removal is still an aspect

of international relations and embedded in deterrence theory (Zagare and Kilgour 2000). In contrast, a rebel group is not inherently a territorial entity (though it may assume that role as it gets stronger). Instead, a rebel group is an organization defined by its members, their distribution in the country, and their density among the civilian population. Relative power is a function of, among other things, a rebel group's total membership compared to the manpower in the service of the government.

How a rebel group's membership is distributed in the country and, especially, how they are dispersed among the civilian population reflect choices made by the rebel leadership. Hiding in caves, forest, or jungle or dispersing among the people makes it harder for government forces to target, identify, and kill rebels. Hiding among the population is only possible with a complicit public. Dispersing among the population has the additional (if perverse) benefit of recruitment; if the government kills civilians in the process of attacking some rebels, the friends and relatives of those killed are more likely to join the rebel group. These choices of distribution and density relate directly to tactical modes of warfare.

Choice of Tactics

Given that they typically are the weaker party, insurgent groups tend to adopt non-conventional tactics so as to put the conflict on a more even footing. In fact, systematic analysis of wars over time demonstrates that military tactics play a significant role in determining victory in battle (Stam, 1996; Arreguín-Toft, 2001). Guerrilla warfare and terrorism constitute forms of asymmetric warfare, used to overcome superior troop strength and technology.

Both terrorism and guerrilla warfare constitute different strategic alternatives of unconventional warfare. Guerrilla warfare is characterized by small groups of combatants employing

mobile and surprise tactics, such as ambushes, raids, and sabotage in an effort to cripple the state, particularly the military capacity of the state. We define terrorism as a violent tactic employed by a non-state actor against noncombatant targets designed to instill fear and intimidation among a wider audience to further a political agenda. In its purest form, terrorism affects change indirectly through the creation of a state of fear among the general populace. Guerrilla tactics, in contrast, focus more directly on the infrastructure and agents of the state.

In interstate wars, this kind of guerrilla action is not the usual mode of warfare. When the main forces of the weaker state have been overwhelmed through battle, guerrilla warfare can come into play, but then the sovereignty of the weaker state has already been compromised and the war looks more like the civil contests we are talking about. A good example of this can be seen in the Chinese Red Army's guerrilla warfare against the occupying Japanese Army. Conventional warfare constitutes the dominant form of interstate conflict. Given the targetable territorial nature of a state, asymmetric warfare cannot be employed as the outside option in interstate bargaining. By contrast, in civil conflict, asymmetric warfare is the definitive form of the military contest.

Slantchev (2003: 131) discusses the "power to hurt" in theorizing about bargaining and war between states as the relative magnitude of two costs of fighting. "The first is the cost that a state can be made to pay when its opponent tries to hurt it. The second is the cost that a state must pay to hurt its opponent. The power to hurt, which turns on the relative magnitude of these costs, and the conditional strategies open up a bargaining range that can produce fighting in equilibrium under complete information." As applied to civil war, the choice of tactics involves a trade-off between the rebels' ability to hurt the government and the government's ability to hurt the rebels. We further refine this notion of "the ability to hurt" as the expected battle deaths from

combat between forces.

The government's ability to hurt the rebels depends heavily on its ability to identify and target rebel members. While this partly depends on government intelligence, the rebel group's distribution in the country and density among the civilian population also affect the government's ability to hurt the rebels. As argued above, using natural terrain for defense and hiding among civilians makes it harder for the government to identify and target rebels (e.g., Buhaug, Gates and Lujala 2009). The reverse also holds. A rebel group that concentrates its forces risks being annihilated. Relative power, however, affects a rebels' ability to hide. A large rebel group cannot hide as easily as a small rebel group.

The rebels' ability to hurt the government is also related to its distribution and density. The essence of our argument is that a closed fist hurts more than an open hand. All else being equal, a concentrated force can kill more opponents than a dispersed force of the same size. Taken together, this means that a small rebel group would rather be dispersed to avoid being annihilated. But as a rebel group gets stronger, it can afford to concentrate its forces to a greater extent in hopes of hurting the government more than the government can hurt it.

To engage in conventional warfare, any army needs some minimum number of soldiers to form brigades, regiments, etc. Below this minimum for conventional warfare, there is some similar minimum number for the raiding parties of guerrilla tactics. Below this minimum for guerrilla tactics, only terrorist tactics make sense in that concentrating one's forces for a more conventional (or even a guerrilla) attack risks total annihilation of the group. Above the minimum values, the "lower technology" tactic may be employed, but the likelihood of it being employed diminishes as manpower increases. Thus, in a civil contest, different zones of predominant tactics can be fit along the relative-power scale: terrorism (Zone 1), guerrilla (Zone

2) and conventional warfare (Zone 3). These three zones are depicted in Figure 1.

[Figure 1 about here]

We assume that the rebel group is the more informed actor in a civil contest. This is not a stretch of an assumption. If the government were more informed than the rebel group, then the government could capture all or most of the members of the rebel group without much effort.

In Zone 1, the government observes that the rebel group can engage in only one type of tactic, a tactic associated with the very weak. This disinclines the government from negotiating with such a rebel group. Recall, however, our discussion above with regard to international conflict: "In extreme cases of power asymmetry, neither conflict nor negotiation is predicted. Instead, the weaker side is expected to tacitly agree with the maintenance of the status quo." For most groups, capitulation is indeed the outcome. For other groups, terrorist tactics offer the chance for the significantly weaker side to fight despite being woefully outmatched. By adapting asymmetric warfare tactics, a rebel group in a civil conflict can overcome the relative balance of power problem.

In Zone 2, however, the government observes that the rebel group can also engage in guerrilla tactics. This provides a signal to the government that the rebel group is a stronger type. Furthermore, given the asymmetric distribution of power and associated relative disparities in resources to devote between "guns and butter", a moderately weaker group will find that it pays to fight rather than engage in peaceful activities. As the weaker group becomes comparatively weaker, it will devote more and more resources to warfare to continue the fight. This "paradox of power" (Hirshleifer's 1991; 2001) or the "nothing left to lose" argument has significant implications for negotiation. As the weaker power has a higher marginal benefit from fighting, it expects to get a lot from war and, thereby, expects to get even more out of negotiations. Indeed,

the government must over-compensate the rebel group. Given that the government has more to lose from fighting than the rebels, a negotiated deal that favors the rebel group is better for the government than continued conflict.

In Zone 3, the rebel group and government approach parity. Here we expect the two groups to engage in similar forms of warfare. As discussed above, under such conditions, we should expect to see the probability of war at its greatest, when rebels have their best chance of winning.

What the Rebels Want

The question remains as to why a rebel group would want to fight given extreme asymmetry. A rebel group can have three motivations for challenging the government. A rebel group could (1) aim to replace the government or the regime, (2) have policy differences with the government, or (3) be motivated by greed. Each of these represents "ideal" types of rebel groups; of course, most rebel groups have a mixture of these motivations.

First, the aim of the rebel group could be government removal or regime change (reflected in the Uppsala/PRIO armed conflict dataset coding of "conflict over government" (Gleditsch et al., 2002; Harbom et al., 2008). Rebel groups with this motivation do not, in fact, have the same incentives to fight when they are very weak when compared to the other two types. Because their motivation presents a zero-sum game with the government, this type of rebel group should fight when it has a decent chance of winning. Low-intensity conflict is not consistent with this objective, and negotiation is inconsistent with its aims. So, there is little reason to fight when extremely weak. Instead, this type of rebel group would prudently lay low and quietly gain strength before launching a more sustained fight against the government.

This type of rebel group could purposely provoke the government into attacking the civilian population in order to boost their own recruitment or engage in terrorist activities in hopes of destabilizing the government.

Second, the rebel group may be genuinely pursuing long-term policy aims short of government replacement or regime change. This may be political autonomy or secession (coded by the Uppsala/PRIO as "conflict over territory" (Gleditsch et al, 2002; Buhaug, 2006)), but may include other policy aims. Because the government can yield on the policy issue without yielding power, this type of rebel group has an incentive to fight even when extremely weak. Indeed, terrorist tactics alone can lead to victory, particularly where media coverage is open. Partly in response to the terrorist violence of such groups as the Zionist Stern Gang, the British gave up authority of Palestine. In the wake of the Holocaust, the British government was not prepared to engage in on-going conflict with the Jewish population of Palestine. Similarly, as a result of the EOKA guerrilla and terrorist activity, the British quit Cyprus. In both these cases, the rebel group raised the ante, and the occupying power was unwilling to match it. Terrorist violence also, by maintaining visibility of the cause in the media, can be effective indirectly. Sinn Fein does not sit in government in Northern Ireland directly as a result of the terrorist violence of the Provisional Irish Republican Army, but because the violence kept Sinn Fein's issues in the media and high on the policymaking agenda.

Finally, leaders can derive benefits just by being at war. Indeed, fighting a war may make the leader vastly better off than the status quo or any reasonable bargain that could be struck. Rebel groups with a greed motivation (Collier 2000; Collier and Hoeffler 2004) are basically engaged in organized crime (Mueller 2000) or banditry (Neary 1997). This type of rebel group is competing with the government for control of rents. Alternatively, leaders may also derive utility

from being in a position of authority without deriving pecuniary benefits; or, they may indeed derive functional benefits by "fighting the good fight".

Government responses to rebel group violence depend on the type of rebel group it faces as well as the ability of the rebel group to inflict costs on the government. Governments have little incentive to negotiate with the regime-change type due to a fundamental incompatibility in aims. The government can negotiate with the policy and bandit types, though it may not choose to at the first instance of violence. However, the point of negotiation is different with each type.

Against the policy type, the government could yield to the policy demands without giving up its position of authority. The government could do this without even negotiating directly with the rebel group. The rebel group can make its demands generally known and the government can alter policy toward the position of the rebel group without anyone coming to a negotiation table.

Against the bandit type, the point of negotiation is how the rents of state are divided. Again, this can be tacitly negotiated in that the government can cease its presence in the part of the country in which the rebel group operates. However, the government will generally have an incentive to attack a bandit rebel group when it can weaken it by doing so. The weaker the bandits, the less the government has to share its rents. But as the rebel group increases in strength, it becomes more costly for the government to fight it and, therefore, more cost effective to strike a deal with the rebel group. Fighting a strong rebel group has the direct costs of soldiers lost, but also demonstrates that the government is not in complete control of its territory. Striking a deal by co-opting the rebel group can be made to look like the government is in control.

Dynamics of Civil Armed Conflict

In the arguments above, relative power is viewed as snapshots in time, but dynamic power shifts

as described by Powell (1999; 2006) are particularly relevant in civil armed conflict, where shifting relative capabilities dictate strategically adapting different tactics of warfare. Shifts in power in civil war come about as a result of successful recruitment and allegiance (Gates 2002; Weinstein 2007) as well as through the destruction of personnel and military equipment.

Indeed, Mao's theory of revolutionary guerrilla warfare (1937) specifies three phases, involving different sets of tactics that are designed to be changed over the course of a war, involving: Phase 1 (organization, consolidation, and preservation); Phase 2 (progressive expansion); Phase 3 (mobile war, strategic offensive). As a rebel army increases in relative capability, it moves from a building and recruiting phase to a sustained guerrilla war and then eventually to a conventional army directly engaging the enemy.

This strategic adaptation of tactics has been successfully employed on a number of occasions—indeed in the Communist takeover of China in 1949, as well as in Vietnam and Cuba. Even in the American Revolution, guerrilla tactics were employed early in the conflict, though the war was eventually won on conventional terms. In each case the winning side was substantially more powerful at war's end compared to their force strength at the beginning of the war.

Our overarching argument is that both the likely tactics employed and whether conflict or the status quo prevails depend on the type of rebel group and its power relative to the government. For a very weak rebel group, the regime-change type would be better off building its strength and biding its time. Very weak policy and bandit types are expected to engage in terrorist tactics and, therefore, conflict is predicted.

As power changes, a rebel group can alter its tactics. These strategic adaptations of shifting tactics in the face of different relative power are linked to the relative ability of each side to hurt the other. Even a very weak rebel group has some ability to hurt the government as the

government always presents a non-elusive target. Moreover, very weak actors in civil contests do not need to agree with the maintenance of the status quo precisely because they have tactics available to them that states ordinarily do not. By the nature of the territorial state, an international attack by a weak state on another state presents the other state with a clear target for retaliation. This is not the case for civil contests in which the rebel group employs terrorist or guerrilla tactics and can be "unseen" by blending in with the civilian population when not actively attacking the government. Guerrilla tactics reduce the ability of the government to hurt the rebel group, due to being "fish in the sea" (Mao 1937). Critical to Mao's theory of guerrilla warfare is that the civilian population is treated with respect, encouraging a complicit public. The choice of tactics for the rebel group also affects its ability to hurt the government. Indeed, using guerrilla tactics implies a lesser ability to hurt for a given manpower base.

In contrast, the government can engage in much destruction without hurting the rebel group. While the government can attack a population it suspects contains rebels, the ability of the rebels to blend in will mean that many non-rebel civilians will be killed in any such attack. Thus, the ability of the government to kill may be high while the ability of the government to hurt the rebel group (through the killing of rebel soldiers) can be severely limited due to guerrilla tactics. On top of this, indiscriminate killing of civilians has the secondary effect of aiding the rebel group by altering civilian sympathies and boosting rebel recruitment (Kalyvas 2006; Valentino, et al. 2004).

So, as a rebel group increases in power from being very weak (shifting from zone 1 to 2), it can shift from terrorist tactics to guerrilla tactics. The concentration of forces to engage in guerrilla tactics hurts the government more than terrorist tactics did while the improved strength of the rebel group allows it to absorb greater punishment from the government. But by shifting to

guerrilla tactics, rather than switching directly to conventional tactics, the rebels do not over concentrate their forces and thereby risk annihilation in a single encounter with the government.

Both policy and bandit types have an incentive to engage in guerrilla tactics. But as we argued above, the government has an incentive to negotiate with these types when they have demonstrated this level of strength. This is the basis of our argument that there is a reduction in civil armed conflict in this range. Regime-change types, however, have an increased likelihood of fighting in this range compared to the other two types.

Conventional tactics imply a still greater ability to hurt for a given manpower base. But these same conventional tactics improve the ability of the government to hurt the rebel group. For a rebel group increasing in power from asymmetry (shifting from zone 2 to 3), its ability to hurt increases but it becomes harder to elude the government. Thus, the government's ability to hurt also increases. The choice of tactics presents a trade-off between the ability to hurt the government and the inability of the government to hurt the rebel group. If we assume that the ability to hurt increases faster in relative power than the ability of the government to hurt the rebel group, then there is another threshold of relative power above which the rebel group will choose conventional tactics.

In zone 3, the three types blur significantly. The regime-change type (assuming it had that goal originally) is very likely to fight if it had not when weaker. The policy and bandit types reaching this level of parity are likely to realize that their aims were smaller than what their relative power can get for them. Thus, they are likely to press their advantage and become regime-change types. The net effect is that as rebel groups reach parity with the government, conflict is quite likely and they are likely to use conventional tactics.

EVALUATION AND CONCLUSION

International relations theories of bargaining power and war help us understand cases of relative parity, but poorly explain extreme asymmetry. Theories of bargaining power that feature commitment problems also apply to dynamic aspects of civil conflict where asymmetry is not too severe and can explain the strategic shift from guerrilla to conventional warfare.

Theories of bargaining power perform best in civil conflict settings, but not completely. Given the greater information of the rebel group regarding its own strength, and therefore, its expected benefits from fighting, Banks' theorem holds in the civil contest between a rebel group and government in Zone 3 (conventional warfare). In Zone 2 (guerrilla warfare), theories of bargaining power are generally supported. In this zone, the degree of asymmetry is not too great, and guerrilla tactics compensate for the disparity in relative power. In terms of Figure 1, the greater the marginal utility for fighting for the weaker party, the more the curve flattens out, which means that the probability of conflict is high. In Zone 1, most bargaining power theories simply do not apply. Powell's (2006) commitment problem perspective of bargaining power involving shifting power indicates that the chances of war are much higher as the rebel group's relative power increases. This logic can also be extended to the technologies of asymmetric warfare and advantages they afford weaker powers. Nevertheless, civil conflict bargaining power theories must be altered to account for asymmetric warfare.

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Figure 1. Relative Power, Civil Contests, and Tactic Switching