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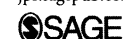
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# Rebel capability and strategic violence against civilians

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## Abstract

This article explores the strategic motivations for insurgent violence against civilians. It argues that violence is a function of insurgent capacity and views violence and security as selective benefits that insurgents manipulate to encourage support. Weak insurgent groups facing collective action problems have an incentive to target civilians because they lack the capacity to provide sufficient benefits to entice loyalty. By contrast, stronger rebels can more easily offer a mix of selective incentives and selective repression to compel support. This relationship is conditioned by the counterinsurgency strategies employed by the government. Indiscriminate regime violence can effectively reduce the level of selective incentives necessary for insurgents to recruit support, thus reducing their reliance on violence as a mobilization tool. However, this relationship only holds when rebels are sufficiently capable of credibly providing security and other incentives to civilian supporters. These hypotheses are tested using data on one-sided violence from the Uppsala Conflict Data Program. The statistical analysis supports the hypothesis that comparatively capable insurgents kill fewer civilians than their weaker counterparts. The results also suggest a complex interaction between insurgent capability and government strategies in shaping insurgent violence. While weaker insurgents sharply escalate violence in the face of indiscriminate regime counterinsurgency tactics, stronger groups employ comparatively less violence against civilians as regime violence escalates.

## Keywords

civil war, civilian victimization, insurgency, violence

## Introduction

Casting rebels as peasant liberators is popular in accounts of revolution, yet the empirical record suggests that insurgents at times terrorize the civilians they claim to represent.<sup>1</sup> Atrocities committed by the Lord's Resistance Army (LRA), Sendero Luminoso, and the Revolutionary United Front (RUF) illustrate that insurgent violence can equal or surpass state brutality. Such behavior seems at odds with the conventional wisdom that rebellions – particularly guerrilla insurgencies – rely extensively on civilians to provide them with necessary resources. Extreme violence risks depriving insurgents of resources and potentially draining their 'sea', leaving them exposed to more powerful government forces. This raises an important empirical question: what motivates insurgents to target civilians when doing so appears to be a suboptimal strategy?

This article answers this question by addressing the relationship between insurgent capacity and violence against

civilians. Violence and security represent selective incentives that insurgents manipulate to encourage civilian support. Weak insurgent groups facing collective action problems have an incentive to target civilians because they lack the capacity to provide sufficient benefits to entice loyalty. Stronger rebels, by contrast, can more easily tap into their existing resource base and employ selective incentives to compel civilian support. This relationship is conditioned by the counterinsurgency strategies employed by the government. In the context of violent counterinsurgency tactics, weak rebels escalate violence against civilians. Stronger groups, who are more likely to possess the capacity to provide supporters with credible security guarantees and other benefits, respond to state violence with comparatively less civilian abuse.

The article proceeds in five parts. The next section reviews rationalist theories of insurgent violence against civilians and synthesizes mobilization and civil conflict literatures that provide the foundation for the theory. The subsequent section

<sup>1</sup> Herein the terms civilian and non-combatant are interchangeable. I define both as individuals who do not take active military roles in the conflict (see Geneva Convention IV, 1949).

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presents the theory. It frames violence as a resource mobilization strategy and unpacks the endogenous relationship between insurgent capabilities and violence against civilians. It also examines the contingent relationship between rebel capacity and state counterinsurgency strategies on the propensity to target civilians. The fourth section provides an empirical test of the hypotheses using data available from the Uppsala Conflict Data Program (UCDP) on rebel violence and troop strength for the period 1989 to 2004. The results support the theory. The final section concludes.

### Rational violence in a strategic environment

Arendt (1970: 51, 79) asserts that violence is 'by nature instrumental' and as such is rational to the extent that it succeeds in achieving the objectives of perpetrators. Applied to insurgencies, this suggests that armed political actors employ violence against vulnerable populations with the expectation that it improves their position within a strategic setting. Patterns of violence are therefore contingent on the extant strategic environment and should vary with changes in it. Recent research suggests that fluctuations in informational asymmetries and zones of control (Kalyvas, 2004, 2006) as well as the balance of power within those zones (Balcels, 2010) shape insurgent violence. Related theories likewise assert that rebels adopt terror tactics to counter strategic setbacks (Hultman, 2007a), acquire or predate resources (Hoffman, 2004), promote ethnic cohesion and encourage mobilization (Byman, 1998), or improve their bargaining position with the government (Lake, 2002). In short, insurgents turn to violence against civilians when the strategic environment is not conducive to achieving their goals.

#### *Variations in insurgent-civilian relationships*

Arguably the most relevant characteristic of the strategic environment is the real or perceived relationship between civilians and armed political actors. When insurgents enjoy broad, active support from the local population they are unlikely to direct violence against it. Conversely, when the government perceives a high level of support for the insurgency among the civilian population, it is more likely to engage in mass killing as a means to punish civilians and eradicate the rebel threat (Valentino, Huth & Balch-Lindsay, 2004). Patterns of violence are therefore likely to covary with changes in these relationships.

Past research connects insurgent viability to the depth of civilian support, yet there has been little empirical investigation of the conditions that shape insurgent-civilian relations, how this relationship varies over time, or how this variation influences violence. As Kalyvas (2004: 121–122) notes, while it is reasonable to assume that insurgents care about civilians because they rely on collaboration to achieve war aims, the strength of the ties between rebels and civilians is often overestimated. Moreover, dependence on positive relations

with civilians to acquire resources seems to vary across groups and conflicts. Warlords often show little interest in establishing positive relationships with civilians, while liberation movements explicitly attempt to integrate them (Kasfir, 2005: 272).

Yet, labels such as 'warlord' or 'liberator' are problematic because they infer goals from behaviors. More importantly, the behaviors of both types of rebels may vary over time. Whether a rebellion consists of true believers or thugs may be less relevant in its decision calculus than the immediate strategic situation. Changes in the National Resistance Army's (NRA) approach to Ugandan peasants are a case in point. Early in the insurgency, in order to signal its intentions to both the regime and peasants, it targeted local political leaders and civilians suspected of collaborating with the government.<sup>2</sup> However, as its capacity grew relative to the regime, the NRA actively encouraged civilian participation by establishing governmental institutions and rudimentary services in its liberated zones. The escalation of the conflict and collapse of these zones later led the rebels to largely abandon civilians and expel them from the conflict zone in order to divert resources to combat. During the last phase of the conflict, the resurgent rebels were able to re-establish safe zones and resume their commitment to civilian participation (Kasfir, 2005). While the NRA were largely ideologically driven and often attempted to provide benefits to peasants and even to integrate them into organizational structures, changes in its strategic environment – particularly changes in its capabilities – often dictated relations with civilians more than its convictions.

That said, revolutions are ultimately fought over and often decided by the support of non-elites (Mason, 1989: 467). Control over the civilian population is a central goal of both insurgents and states because the distribution of civilian loyalty potentially shapes war outcomes (Hultman, 2007a: 207; Scott et al., 1970: 95–97; also Kalyvas, 2004, 2006). Thus, while insurgents may at times eschew civilian involvement, rational rebels should desire and seek nominal support from the local population in order to achieve their goals.<sup>3</sup> This also suggests that civilians possess some potential to determine their relationship with rebels (Kalyvas, 2004; Zahar, 2000: 117; Schafer, 2001: 231). There exists, therefore, a dynamic interplay between the rebels' ability to mobilize support and changes in the conflict environment. Rebel capabilities are largely determined by their ability to encourage broader support from the civilian population, and they frequently rely

<sup>2</sup> The extent of NRA violence against civilians is contested. Former NRA members insist that the rebels avoided violence while former Uganda People's Congress politicians and supporters contend that the NRA engaged in massacres of UPC activists, politicians, and other collaborators (see Kasfir, 2005, especially fn. 18).

<sup>3</sup> The level of civilian support necessary to achieve insurgent goals is related to the goal itself. Buhaug (2006) offers a state-centered theory of the relationship between relative capability and insurgent objectives.

on civilians to provide them sanctuary, provisions, information, and other resources (Mason, 1996: 66; Migdal, 1974: 41–51). Utilizing the population and its resources to balance the capability ratio with the state often becomes a central objective of the insurgents (Scott et al., 1970: 74).

### *Resource mobilization strategies*

Given the likely relationship between resource mobilization and civil war outcomes, it is useful to imbed explanations for civilian recruitment and participation within theories of civilian victimization. Without trivializing the complexity or gravity of domestic conflict, the theory constructed here assumes civil conflicts generally, and revolutions specifically, resemble the competition over market share between opposing firms (DeNardo, 1985; Leites & Wolf, 1970; Mason, 1996; Tullock, 1971). Insurgents (and governments) thus have an incentive to entice civilian loyalty and to employ sanctions to prevent and punish collaboration with the enemy.

Rebels choose among a variety of strategies for mobilizing civilian support and deterring defections (Lichbach, 1995; Moore, 1995). Any strategy, however, entails cost, either in terms of human resources dedicated to grassroots mobilization or benefits such as wages or public services. The strategies available to insurgents as well as the utility of a given strategy are determined largely by the capabilities of the group. All else equal, weak insurgent groups are less capable of providing potential supporters with sufficient material incentives to compel voluntary collaboration. Relative weakness therefore constrains the strategic options available for mobilizing resources. Under such constraints, weak insurgents are likely to choose particularly low-cost strategies for inducing supportive behaviors from the civilian population.

Ideological appeals are among the cheapest (and most common) strategies available to rebel elites. Yet such strategies frequently fail to mobilize broad support because civilians are often apolitical and motivated primarily by immediate survival and security concerns (Migdal, 1974). Even politically motivated civilians weigh the risks of participating versus the value and probability of acquiring promised benefits (Mason, 1989; Tullock, 1971). Wages and loot may attract some 'greedy' supporters, but they are unlikely to motivate peasant support if participation carries a high likelihood of severe punishment by the government. Rather, order, security, and basic services are more likely to resonate with this population. As a result, services that mimic those provided by the state become important incentives for peasant mobilization. They encourage civilian cooperation and help bring civilians under the control of the insurgents, thus limiting the ability and desire to collaborate with government forces and expanding the insurgents' human resource base.

The provision of incentives sufficient to induce support requires significant capabilities. Establishing safe zones or otherwise defending territory is indicative of rebel strength and the capacity to protect supporters from government reprisals

(Mason, 1996: 74). Nominal territorial control is often a necessary condition for providing other incentives as well. Once the Frente Farabundo Martí para la Liberación Nacional (FMLN) was able to establish liberated zones outside of government control, the group organized community government, educational programs, medical services, and agricultural cooperatives (Binford, 1997; Hammond, 1999). In Ethiopia, the Tigray People's Liberation Front (TPLF) and Eritrean People's Liberation Front (EPLF) implemented land reform policies, constructed judicial and political systems, and undertook other quasi-state programs in the areas they liberated from the Derg (Young, 1998; Poole, 2001: 105–130).

Weak insurgencies are typically unable to provide such goods; as a result, few civilians risk supporting the rebellion. This suggests that mobilizing support is closely tied to the ability to demonstrate capabilities to the pool of potential recruits (Gates, 2002: 123). The experience of the TPLF is exemplary of this dynamic. Initially, the group's membership was small and it experienced significant difficulties recruiting from among the rural population. By the early 1980s, however, the group's recruitment had increased five-fold. The rise in recruitment came only after the TPLF convinced a skeptical peasantry that it possessed the capacity to militarily defeat the Derg forces and after it moved from abstract political appeals to the provision of services and rudimentary institutions in areas it controlled (Young, 1998: 124–125).

### *Violence as a recruitment tool*

Like goods, violence serves as an acute motivator for support. Violence overcomes insurgents' collective action problems in several ways. First, it compels cooperation – quite literally – at gunpoint. Rebels resort to violence because it is cheaper than either selective repression or the provision of significant positive incentives (Kalyvas, 2006: 165). Second, violence alters civilians' expected returns for remaining neutral (Kalyvas, 1999; Lichbach, 1995: 58). In the context of severe violence, civilians are increasingly likely to turn to 'a side' in the hopes of increasing their probability of escaping violence. In a related manner, insurgents may target civilians to underscore the government's inability (or unwillingness) to protect vulnerable civilians. The Frente de Libertação de Moçambique (FRELIMO) shelled villages to demonstrate that the Portuguese forces could not protect civilians (Henriksen, 1983: 77, 121). If civilians perceive that the government lacks either the capacity or the will to prevent guerilla attacks, their expected utility for resisting the insurgents declines. Consequently, civilians may collaborate with insurgents when compelled by violence because there is no practical benefit to resistance.

Past research also suggests that indiscriminate regime violence helps insurgents to overcome their collective action problem by using security as a selective incentive (Kalyvas, 2006: 156; Kalyvas & Kocher, 2007; De Nardo, 1985). However, as Moore (1995: 434) points out, the internal logic of the argument suggests only that regime violence makes civilians indifferent between supporting the rebels or the government.

Other options, such as flight, might be cheaper still. Thus, connecting civilian collaboration to escalating regime violence is problematic because it rests on an overstated assumption that rebels have the capacity to protect civilians, which is not likely to be true in the case of particularly weak rebellions.

While regime backlash may mobilize civilians who were already at or close to the point of indifference between remaining neutral and supporting the rebels, it does not necessarily follow that most civilians would support insurgents in the wake of indiscriminate regime violence. Without credible security guarantees from rebels, civilians likely have insufficient incentive for supporting the risk of insurgents. Indeed, civilians might blame the rebels for the escalation in violence and withhold support. Even when government forces kill large numbers of civilians, destroy property, and use other forms of collective punishments, civilians choose to collaborate with the incumbent's forces if the rebels are seen as weak (Kalyvas, 2006: 167). Regardless of potential benefits promised by insurgents or the political preferences of civilians, the real threat of retributive violence from the incumbent's forces is likely to undermine support for the rebels when they are too weak to protect sympathizers.

### Strategy, strength, and violence

Changes in rebel–civilian relations are partly a function of the insurgents' basic capabilities and partly a function of strategic interactions between the insurgents and the government. Both insurgents and governments offer competing incentives to attract civilian loyalty and employ repression to prevent defections. Selective incentives such as public services, wages, or security may encourage civilian support for the insurgency, but the extent to which rebels can deliver these incentives is heavily constrained by their capabilities.

In order to credibly and consistently deliver sufficient incentives to encourage and maintain large-scale civilian support, insurgents must possess some extant ability to control land, markets, or resources. Strong rebel organizations may be able to provide parallel political systems, public services, and similar incentives, but such goods exceed the capabilities of most rebel organizations. For this reason, weak insurgents are likely to be outbid by the government. Even in the context of high repression and low state capacity, incumbent regimes are likely able to offer a more competitive deal than are insurgents. Moreover, the threat of punishment by state security forces is likely to deter collaboration unless the insurgents can promise a reasonable degree of protection from government reprisals.

Facing a highly unequal balance of capabilities, weak insurgent groups may view violence as an inexpensive alternative to supplying positive incentives to (temporarily) expand their resource base. In the immediate term, violence directed against the population may undermine the sovereignty of the regime, reconfigure the social or political organization of a community, and provide insurgents with a minimum level of tangible or human resources. These factors are likely to temporarily

translate into increased rebel capacity, either indirectly by creating conditions that favor the insurgents (fear, disorder, regime violence) or directly through captured loot or forced collaboration.

Yet, as Arendt (1970: 56) argues, violence can effectively destroy power but can never create it. In the longer term, violence is counterproductive because it breeds resentment and creates incentives for civilians to collaborate with incumbents (Kalyvas, 2006: 153–157). Thus, if an insurgency acquires sufficient resources to compete with incumbents for civilian loyalty, insurgents should begin to substitute selective repression and positive incentives for indiscriminate violence in order to encourage or maintain collaboration. Increased capacity should likewise diminish the relative difference between the costs of indiscriminate violence and more selective coercion, which should in turn increase the incentive to rely on the latter. As capacity expands, insurgents are better able to consolidate control over territory. Control facilitates the substitution of more selective forms of coercion for indiscriminate violence because with it comes greater access to information and the ability to more efficiently police the population (Kalyvas, 2006). Given this situation, stronger insurgents maximize their mobilization potential by decreasing violence against civilians.

Whether insurgent violence succeeds in eliciting civilian support or driving them away is contingent on the government's response. Adopting counterinsurgency policies that shield civilians from violence may garner civilian support and thus undermine insurgents. However, because the cost of counterinsurgency is proportional to its selectivity (at least in the short run), states often adopt their own counterproductive counterinsurgency strategies (Mason & Krane, 1989). This is particularly true when insurgents are weak and the government is willing to gamble on their inability to protect civilians (Kalyvas, 2004: 133–134). In such situations insurgent violence may have the perverse effect of escalating state violence against civilians, thereby benefiting the insurgents. Insurgents may even bank on this notion, resorting to terrorist tactics and indiscriminate violence in order to prompt a disproportionately violent response from the regime (Lake, 2002; Leites & Wolf, 1970: 112–115).

Stronger rebels should perceive a declining benefit to the use of violence against civilians as a mobilization strategy and a corresponding increase in the utility of offering civilians a better deal than is offered by the regime. At the extreme, in the context of massive regime violence, insurgents need only offer a marginal increase in the probability of survival in order to gain the support of civilians. Rebels that lack the capacity to provide at least nominal protection, if not other selective benefits, to supporters face comparatively greater difficulties mobilizing resources. Compared to stronger rebel organizations, weak or weakening groups are therefore more likely to use violence as a strategy to close the capability gap.

*H1:* Insurgents with greater relative capabilities employ less violence against civilians compared to less capable insurgents.

As a corollary to this, regime violence should reduce the relative cost to the insurgent of providing selective incentives. It should therefore augment the value of using violent coercion as a tool for compelling civilian support. While past research has argued that mass regime violence promotes sympathy for the rebels, significant violence-induced mobilization is only likely to occur when insurgents possess sufficient capacity to compensate collaborators for their risk. State violence may therefore function as a necessary but not sufficient criterion for civilian collaboration. It must be coupled with some set of incentives that tip civilians' balance of payments nominally in favor of the insurgency. The TPLF's experience in Afar is telling. The Derg's campaign of repression against the Afar generated significant grievances among the population but was insufficient to drive the people into the arms of the rebels. In order for the rebels to profit from Mengistu's violence, they had to credibly demonstrate their commitment to making positive contributions to the lives of the Afar. This meant providing benefits such as economic development, political and educational structures, security, and justice systems (Young, 1998: 149–151).

Security is a precursor to other incentives and therefore arguably the most important benefit insurgents can offer supporters.<sup>4</sup> Regime sanctions should deter civilian support for the insurgency when the insurgents fail to guarantee security. However, stronger insurgents can overturn any increase in support for the government resulting from state coercion by providing some measure of protection to civilians (Mason, 1989: 477). During the Japanese occupation of China in the 1930s and 1940s, the Chinese Communists were better able to provide protection in many areas than were the Kuomintang, allowing them to attract greater support from peasants and to further expand their capabilities (Migdal, 1974: 254). The ability to credibly demonstrate the capacity to defend civilian collaborators is therefore often a prerequisite for rebels to elicit civilian support.

This reveals a potential caveat to the violence–capacity relationship: the level of state violence should augment the relative cost of the selective incentives that must be supplied by the insurgents. Insurgents must offer incentives that sufficiently compensate their supporters for their risk. Risk and the value of the incentives demanded by civilian supporters should vary proportionally. When the market value for collaboration is high – that is, when collaboration significantly increases the risk to a collaborator above that of a neutral civilian – civilians will demand greater incentives for abetting the insurgency. However, as the difference in the risk between collaborating and withholding assistance diminishes, the price of participation should diminish accordingly. Weaker rebels are therefore more likely to rely on violence when faced with escalating regime violence because they cannot provide

sufficient benefits to prevent defections. For example, Israel's embargo of Gaza and the subsequent brutality of its military campaign against Hamas during early 2009 exacerbated the already acute hardships of Gaza residents. However, many Gazan civilians blamed the insurgents as well as Israel. Support for the group began to decline because many Palestinians perceived that the group was either incapable or unwilling to protect them from the violence it initiated (Gazzar, 2009; Putz, 2009). Furthermore, facing rising internal dissent in the wake of the military campaign, Hamas increased violence in order to punish suspected collaborators and quiet dissent (Amnesty International, 2009b). According to one Gaza resident, 'Many people are now against Hamas, but ... anyone who stands up to them is killed' (in Putz, 2009; see also Gazzar, 2009). By contrast, when rebels can credibly deliver protection and other incentives, regime violence may facilitate recruitment, lessening the relatively capable rebels' reliance on violence.

*H2: In the context of escalating regime violence, weaker rebels escalate violence against civilians while stronger rebels de-escalate violence.*

Rebellions do not necessarily follow a linear path from relative weakness to strength. Capabilities fluctuate throughout the conflict as a result of both endogenous changes in actors' strategies and exogenous changes in the conflict environment. The entry of new parties, major battlefield victories, or changes in war technology can significantly re-order the relationships among civilians and political actors, leading to strategy shifts. Strategic developments during the course of the Vietnam conflict, such as major US troop deployments, the assassination of President Diem, and the Strategic Hamlet Program (SHP), led to significant shifts in National Liberation Front (NLF) recruitment policies (Berman, 1974: 50). The SHP had a particularly damaging impact on NLF recruitment and as such corresponded to a notable increase in rebel violence during the period in which it was in place (Pike, 1967: 102, 116–117). While rebels typically begin as weak challengers and likely accumulate strength over time (provided they survive), over the course of conflict they are often likely to face setbacks that weaken their relative capabilities. Rebels forced into positions of relative weakness are likely to temporarily return to violence to recoup losses and recapture resources. This dynamic is consistent with the predictions made by other scholars (e.g. Hultman, 2007a; Kalyvas, 2006) but offers a different – though complementary – explanation of insurgent violence. Whether violence is viewed as productive or not – and thus whether it is employed by rebels – is a function of changes in the strategic environment.

## Methods

I rely on the UCDP Dyadic Dataset (Harbom, Melander & Wallensteen, 2008) to define the sample. This sample

<sup>4</sup> Humphreys & Weinstein (2008) report that security was a prime motivator for civilians who voluntarily joined either the RUF or the Civil Defense Forces during the civil war in Sierra Leone.

includes dyads for the years 1989–2004, yielding 818 dyad-year observations containing 212 insurgent groups involved in 113 conflicts in 74 countries.<sup>5</sup> The measures of insurgent and state violence against civilians are taken from the UCDP One-sided Violence dataset (Eck & Hultman, 2007; Kreutz, 2008).<sup>6</sup> This dataset includes only direct, intentional killing of civilians in non-combat contexts and excludes indirect deaths from siege or disease and unintentional deaths from collateral damage as well as 'extrajudicial executions'. While the theory herein refers broadly to all forms of intentional violent coercion against civilians, the measures of insurgent and state violence used in the statistical analysis represent a subset – albeit the gravest – of this violence.

Relative rebel capability ( $RC_i$ ) is a ratio of insurgent troops to the scaled number of government troops reported in the UCDP database (UCDP, 2009).<sup>7</sup> Scaling accounts for multiple insurgencies within a country that presumably necessitate the division of government troops.  $RC_i$  is constructed by dividing the number of troops in insurgent group  $i$  by the scaled value of government troops ( $g$ ).  $g$  is calculated by multiplying the total number of government forces ( $G$ ) by the proportion of troops  $i$  represents of the total number of insurgencies ( $I$ ) within a conflict system [ $g = (i / I) * G$ ].<sup>8</sup>

This measure does not fully capture the balance of power in the conflict. Rebels may be capable of amassing as many (if not more) troops as the regime but are still militarily weaker than the government given their limited access to war technologies such as aircraft, heavy artillery, etc. Moreover, rebel capacity as discussed in the theory refers not only to military capabilities, but also to other capabilities such as

organizational structures, resource wealth, and arms procurement. Insurgents can also benefit from broad popular support that is not translated directly into troop size. The ratio used here should therefore be seen as a relative measure of rebel strength and not a true balance of capabilities. Figure 1 shows the frequencies for rebel strength for the sample used here.

Recent conflict data accounts for local features of conflicts that are diluted in larger aggregations. The control variables include a combination of conflict-specific indicators as well as more traditional country-level variables. Table I summarizes variables used in this analysis.

Popular accounts of civil wars suggest that conflicts between different ethnic groups or those over secession are more violent than other conflicts. Ethnic conflicts may lead to dehumanization, making violence more brutal and more visceral. Territorial conflicts, which are often underlain by ethnic divisions, may entail ethnic cleansing or symbolic violence intended to terrorize unwanted residents. Territorial conflicts are coded 1 and others 0 (Harbom, Melander & Wallensteen, 2008). Identity conflicts take values of 1 if the rebels originate from a different ethnic group than the government (Buhaug & Gates, 2002).<sup>9</sup>

Kalyvas (2004: 133) suggests that indiscriminate violence should diminish over time as political actors recognize its counterproductive effects. To account for the age of the insurgency, I include the log-transformed value of the count of years since the first battle-related death associated with the group. This count is taken from UCDP Dyadic Dataset. Conflict severity is also likely related to civilian victimization. Intense conflicts provide incentives for violence against civilians because warring parties may become more desperate and focus violence on civilian population centers rather than better-defended military targets in order to wear down the adversary (Downes, 2006). Escalating battlefield costs may pressure insurgents to target civilians in order to signal their resolve to continue the fight (Hultman, 2007a). Conflict severity is the logged-value of the annual number of total battlefield casualties among all parties in the conflict (Lacina & Gleditsch, 2005).<sup>10</sup>

The size of the conflict zone and the density of the population may also influence the number of civilian casualties. The distance between principals and agents is proportionally related to information acquisition and control (Gates, 2002). As the size of a conflict area increases, insurgent leaders have less control over recruits and less information about recruits' actions, and may have to pay increasing benefits to those recruits. As the ability to access

<sup>5</sup> Because of differences between the UCDP Dyadic Dataset and the One-sided Violence Dataset and missing data on troop size in the UCDP database, the sample loses some 120 observations. Rwanda 1994 is dropped from the sample because it is an extreme outlier in terms of government violence (at ten times the next highest value).

<sup>6</sup> A specific definition of 'civilian' is not found in either the codebook (Kreutz, 2008) or in the introductory article (Eck & Hultman, 2007). Readers may wish to consult the Geneva Convention IV (1949), especially Article 3, for a legal definition and Walzer (1977) for a substantive discussion. While I acknowledge the inherent limitations of these data, this is the most complete dataset to date on insurgent violence against non-combatants.

<sup>7</sup> Troop values are often given as a range of estimates from various sources. In these cases, averages of values were generally used. When available, government-backed paramilitary forces are also included in the measure of government strength, as well as foreign forces allied with the government or the insurgents.

<sup>8</sup> I assume that governments commit troops in proportion to the threat posed by the rebellion. There are, of course, several ways to construct this ratio, all of which require making assumptions about the relationships among different insurgent groups within the same conflict. This operationalization assumes that different rebel groups within the same conflict are not competitive and may even pool forces. Results using alternate constructions are available in the online appendix at the *JPR* replication website.

<sup>9</sup> In a few cases the data were updated for the years 2001–04 using similar sources.

<sup>10</sup> Hultman (2007a) included the number of battlefield casualties accruing to each party. These data were collected from UCDP coding sheets, which are currently not publicly available.

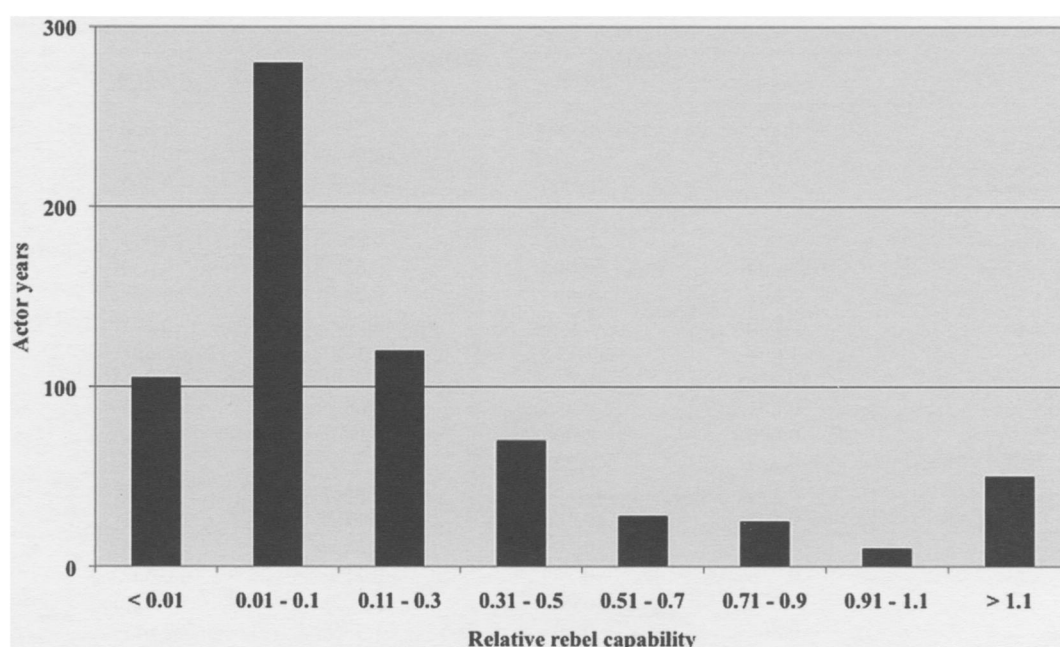


Figure 1. Distribution of relative insurgent capabilities in sample.

Table I. Summary statistics

Variable	Mean (Median)	Std dev.	Min, Max
Rebel violence	78.10 (0)	447.03	0, 8360
Rebel capability	0.37	0.83	0.00, 7.5
RC <sub>i</sub> * Govt.	71.15	1035.75	0, 26675.4
violence			
Government	81.05 (0)	364.47	0, 5799
violence			
Identity conflict	0.75 (1)	0.43	0, 1
Territorial	0.47 (0)	0.50	0, 1
conflict			
Conflict	6.18	1.83	3.22, 10.78
severity(ln)			
Age(ln)	2.06	1.10	0, 4.01
Regime type	1.46 (1)	6.40	-9, 10
GDPpc(ln)	7.64	0.92	5.04, 10.53
Cold War years	0.15 (0)	0.36	0, 1
Conflict area(ln)	11.64	1.52	6.94, 14.64
Conflict area	106.64	126.94	0.98, 839.44
density			
Lootable	0.64 (1)	0.48	0, 1
resources			
Foreign support	0.31 (0)	0.46	0, 1

Reported values are rounded to two significant digits.

information about recruits' motives (Weinstein, 2005) and the local population's loyalty (Kalyvas, 2006) decreases, violence increases. Furthermore, attacks in densely populated areas are more likely to increase the number of persons affected. Bombarding an urban center results in

greater numbers of casualties than it does in a rural hamlet. Conflict area is the logged value of the estimated area of the conflict zone in square kilometers and is constructed from geo-referenced conflict site data available from the International Peace Research Institute, Oslo (PRIO) (Raleigh et al., 2006). Density is the estimated number of persons per square kilometer inside the conflict zone. It is constructed using the area data along with gridded population data available from Columbia University's Center for International Earth Science Information Network (CIESIN, 2005).<sup>11</sup>

Lootable resources and foreign support for rebels have been linked to insurgent violence in both media accounts and qualitative analyses of conflict (Hovil & Werker, 2005; Weinstein, 2005, 2007). I construct a binary indicator for the presence of loutable resources within the conflict area that is coded 1 if any gems (diamonds, rubies, jade, etc.) or drugs (cannabis, opium, or coca) are located within the conflict zone and 0 otherwise. Geospatial data on the location of gems is from Lujala (2009) and Gilmore et al. (2005), while drug data is from Lujala (2003). Information on foreign support for insurgent groups is taken from data available in the UCDP database (UCDP, 2009). The variable is coded as 1 if the group received material assistance from external allies in a year and 0 otherwise.

<sup>11</sup> The area variable is constructed from PRIO estimates of the maximum radius from the center of the conflict. Radii are cropped at international boundaries and the areas of the remaining polygons are summed. Density is the summed population of polygons divided by the area.



Table II. Regression results

	<i>Model 1</i>	<i>Model 2</i>	<i>Model 3</i>	<i>Model 4</i>	<i>Model 5</i>
Rebel capability	−0.492 (0.006)	−0.480 (0.006)	−0.595 (0.000)	−0.620 (0.000)	−0.604 (0.001)
RC <sub>i</sub> * Govt. violence		−0.000 (0.000)	−0.000 (0.000)	−0.000 (0.011)	
Government violence	0.000 (0.084)	0.001 (0.005)	0.001 (0.028)	0.001 (0.030)	
Identity conflict	0.892 (0.036)	0.886 (0.038)	0.299 (0.542)	0.363 (0.431)	0.389 (0.397)
Territorial conflict	−1.008 (0.015)	−1.018 (0.014)	−1.179 (0.008)	−0.807 (0.049)	−0.729 (0.071)
Conflict severity(ln)	0.601 (0.000)	0.597 (0.000)	0.652 (0.000)	0.483 (0.000)	0.478 (0.000)
Age(ln)	0.224 (0.194)	0.224 (0.192)	0.326 (0.082)	−0.141 (0.445)	−0.176 (0.331)
Regime	0.107 (0.004)	0.108 (0.004)	0.118 (0.002)	0.121 (0.004)	0.119 (0.004)
GDPpc(ln)	−0.718 (0.002)	−0.709 (0.002)	−0.712 (0.002)	−0.547 (0.022)	−0.058 (0.017)
Cold War	−0.807 (0.034)	−0.794 (0.036)	−1.336 (0.000)	−0.617 (0.233)	−0.573 (0.273)
Conflict area(ln)			0.099 (0.551)	0.084 (0.614)	0.122 (0.455)
Conflict area density			0.004 (0.014)	0.001 (0.452)	0.001 (0.503)
Lootable resources			−0.156 (0.600)	−0.079 (0.799)	−0.106 (0.735)
Foreign support			0.905 (0.001)	0.586 (0.033)	0.631 (0.021)
Rebel violence dummy <sub>t-1</sub>				1.615 (0.000)	1.604 (0.000)
RC <sub>i</sub> * Govt. violence <sub>t-1</sub>					−0.002 (0.014)
Government violence <sub>t-1</sub>					0.001 (0.177)
Constant	4.796 (0.005)	4.738 (0.006)	2.951 (0.268)	3.246 (0.215)	2.995 (0.244)
Wald X <sup>2</sup>	67.44	85.35	121.46	157.22	154.28
Prob. > X <sup>2</sup>	0.000	0.000	0.000	0.000	0.000
Observations	679	679	679	628	625
Dyads	170	170	170	158	157

*p*-values from robust standard errors clustered on dyads in parentheses. Two-tailed test.

High levels of development allow the state to provide incentives to individuals as a non-violent means of dissuading them from participating in rebellion. In addition, more developed states are better able to institute effective anti-terror and security measures that can protect civilians from rebel violence. The measure is the logged value of GDP per capita (Gleditsch, 2002). Democratic regimes may also encourage violent attacks on civilians by virtue of their participatory nature and the links between the preferences of the population and the actions of the state (Goodwin, 2006; Hultman,

2007b; Pape, 2005). The measure is the 21-point indicator from the Polity IV dataset (Marshall & Jaggers, 2006).

Finally, I control for the Cold War years. Change in the international system at the end of the Cold War may have augmented the recruitment strategies available to insurgent groups, largely as the result of major shifts in superpower aid disbursements and assistance. Some scholars have argued that post-Cold War rebels are less political revolutionaries, more bandits, and more likely to use gratuitous violence (Kaldor, 1999). The Cold War variable is coded as 1 for all years prior to 1991 and 0 otherwise.

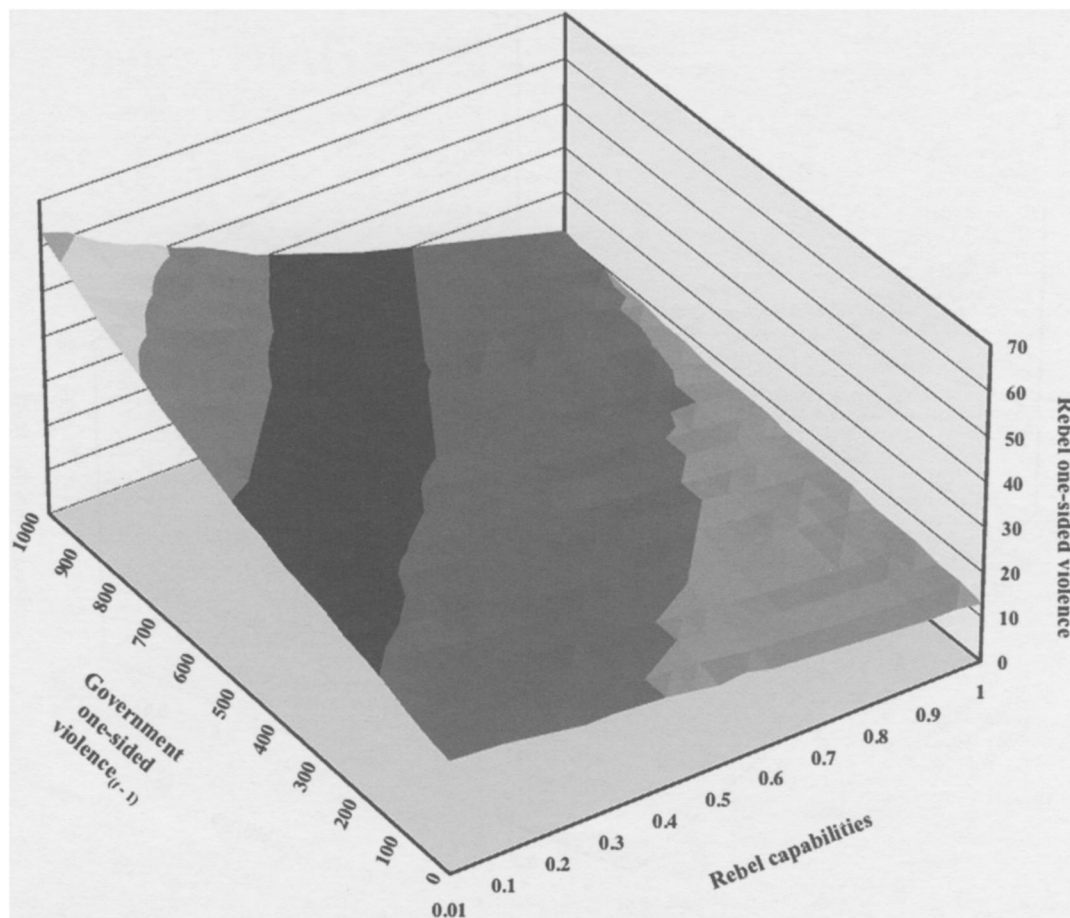


Figure 2. Predicted rebel one-sided deaths (using current government violence)

Predicted rate of civilian deaths from rebel one-sided violence at varying levels of  $RC_i$  and government-sponsored one-sided killing. Other variables held at mean or median values.

## Results

Coefficients and respective  $p$ -values are reported in Table II.<sup>12</sup> Because the dependent variable is a count of the annual number of civilians killed, I rely on negative binomial regression (NBR) models as the primary test of the hypotheses. The first model tests the independent effect of  $RC_i$  on violence, while Model 2 tests the contingent effect of government violence and  $RC_i$ . Models 3 and 4 include additional conflict-level covariates, and Model 5 substitutes recent government violence for present government violence.

The results for Model 1 show an independent, negative relationship between rebel capabilities and the number of civilians killed by the group. Rebels with greater capabilities relative to the government use less violence against civilians compared to weaker insurgents. Model 2 demonstrates a

contingent relationship between insurgents' relative capabilities and government violence. The interaction term is negative and significant; however, the coefficient is quite small ( $\sim -0.0005$ ). The result is robust to the inclusion of controls for conflict size, population density, lootable resources, and foreign assistance in Model 3 as well as to the indicator accounting for a recent history of rebel one-sided violence in Model 4.<sup>13</sup> The models also show a significant independent relationship between government and rebel violence, suggesting that as governments become more violent rebels reciprocate with their own violence toward civilians.

Model 5 is identical to Model 4 but replaces the level of current government violence with the level of government violence at time  $t-1$  as both an independent term and in the interaction. I include this alternative model because the theory

<sup>12</sup> Additional robustness checks generally validate these results. In brief, the results for  $RC_i$  are consistent across specifications. Results for the interaction term are more sensitive to model specification and choice but generally support the finding presented here. Please see the online data appendix for results and discussion.

<sup>13</sup> Lagged dependent variables are commonly used in linear models to account for temporal dependence; however, the technique is not appropriate for maximum likelihood estimations. The inclusion of a dichotomous indicator representing the use of one-sided violence in the previous year is one way to account for the effect of past behavior on current behavior.

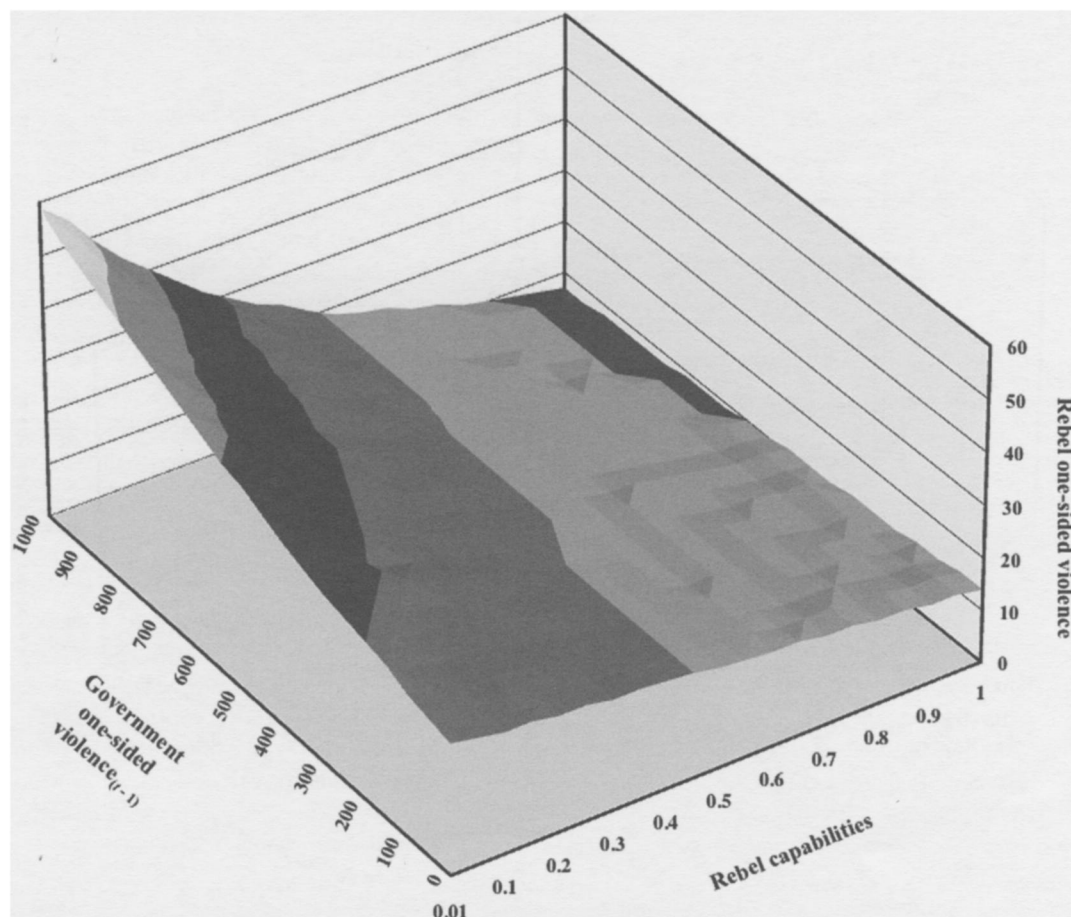


Figure 3. Predicted rebel one-sided deaths (using recent government violence)

Predicted rate of civilian deaths from rebel one-sided violence at varying levels of  $RC_i$  and recent government-sponsored one-sided killing. Other variables held at mean or median values.

asserts that stronger rebels should be better able to protect civilians from government violence. Rebel capabilities and government violence are therefore likely to be related such that the presence of more capable rebels reduces the observed level of government violence against civilians (though not necessarily its intent to inflict violence).<sup>14</sup> Conversely, high levels of government violence could indicate rebel weakness or inability to protect civilians. The results from this model suggest that indeed this relationship is likely to occur. In this model, the interaction term is significant and the coefficient is nearly five times higher than in the previous model. The independent government violence term is insignificant.

Figures 2 and 3 illustrate the substantive effects of Models 4 and 5.<sup>15</sup> They show the predicted rate of civilian victimization for varying levels of  $RC_i$  and present and recent government violence, respectively. In both figures, holding government

violence at its mean, rebel violence falls by 35% as the group moves from the mean value of  $RC_i$  to parity with the government. Moving from extreme weakness ( $RC_i \sim 0.01$ ) to the mean, killing is predicted to decline by nearly 20%. The graphs further demonstrate that the level of regime violence conditions the predicted rate of insurgent violence at varying levels of  $RC_i$ . The relationship between regime and rebel violence is positive and particularly steep for weak insurgents. According to both graphs, an extremely weak rebellion is predicted to kill nearly double the number of civilians when government violence is two standard deviations above the mean.

The positive relationship between the two diminishes as the insurgent group's capability approaches parity with the regime – at parity, rebel killing increases by just a third over the same range of government violence. Additionally, there is a sharp decrease in the predicted rate of civilian killing over the range of  $RC_i$  when the government is exceptionally violent. According to both figures, at the mean level of one-sided government violence, rebel killing declines by more than 40% as  $RC_i$  increases from extreme weakness to relative parity. When government violence is two standard deviations above the

<sup>14</sup> I am grateful to reviewer B for pointing this out.

<sup>15</sup> Graphs are constructed from predicted rate obtained from calculations using SPOST (Long & Freese, 2005).

mean, rebel violence falls by approximately 65% in Figure 2 and by nearly 80% in Figure 3.

Furthermore, Figure 3 illustrates a more distinctly inverse relationship between the combination of recent government violence and rebel capabilities and the level of insurgent violence. In this graph, while recent government violence against civilians drives up rebel violence against civilians when the insurgents are weak, this effect diminishes and then reverses as rebels become stronger. When rebels achieve approximately half the troop size of the regime, they are predicted to kill the same number of civilians regardless of the level of violence recently employed by the regime. Moreover, as rebel and government forces approach parity, recent violence by the government has a suppressive effect on rebel violence. For extremely strong rebels – for example, those at parity with the regime – a two standard deviation increase in recent government violence above the mean actually drives down rebel violence by nearly 50%.

The inverse relationship between  $RC_i$  and rebel violence supports the theory. The contingent relationship between  $RC_i$  and current government violence is less pronounced than expected. The theory anticipates that for stronger rebels, an inverse relationship should exist between rebel and state violence. The graph of the results of the regression model suggests that increasing strength mediates the effect of increasing state violence in the current period but does not reverse it. However, a recent history of government violence does in fact reduce insurgent violence when the insurgents are particularly strong. In either case, stronger rebels are consistently less likely to reciprocate violence compared to weaker rebels. These results support recent analyses that show a positive relationship between government and insurgent violence (Bohara, Mitchell & Nepal, 2006; Heger & Salehyan, 2007) but offer a more nuanced explanation for the dynamics involved.

Taken as a whole these results support the theory constructed here. Moreover, these results jibe with existing theories of information and population control (Kalyvas, 2006) and the role of military setbacks (Hultman, 2007a) in structuring rebel violence against civilians. Where this analysis differs is in its attempt to locate violence in the changing capacity of insurgents over the course of a conflict, which is in turn rooted in the strategic decisions adopted by the actors. During periods of sustained or increasing relative capabilities, civilians revise upward their opinions of insurgent victory and shift support to the insurgents. For example, the expansion of NLF control in rural areas during the late 1950s and early 1960s demonstrated the strength of the rebellion. The perception of growing insurgent strength coupled with the relative capacity of revolutionary institutions in rural communities encouraged recruitment and lessened the need to rely on terror against the peasantry (Joiner, 1974: 181–183; Tanham, 2006: 66–67). A similar dynamic was observed during the earlier rebellion against the French: as the Vietminh's strength rose relative to the French colonial forces, its use of indiscriminate terror decreased (Pike, 1967: 251). By contrast, weak rebels or those

facing significant setbacks as a result of change in the strategic environment escalate violence in order to control the population and enforce loyalty. Increased US involvement in Vietnam in the mid-1960s weakened the relative capacity of the insurgents and forced them to adopt more coercive strategies of resource mobilization, including forced conscription and greater violence (Berman, 1974: 50; Joiner, 1974: 247, 250–251). These dynamics have played out in recent conflicts as well. The notable spike in violence by Hutu militias in the Kivu region of the Democratic Republic of Congo corresponds to Rwanda's entry as an ally of the government and the subsequent weakening of the rebels (BBC, 2009). Similarly, as Tamil Tiger (LTTE) capabilities declined in the face of a recent government offensive, the rebels increased indiscriminate violence and forced civilians to remain in the conflict zone (Amnesty International, 2009a).

The control variables present a few counterintuitive findings, but overall match expectations. A history of violence encourages current violence: the binary indicators accounting for rebel one-sided killing in the previous year are significant and positive in each model in which they are included. The coefficient for identity conflicts is positive across specifications but only significant in Models 1 and 2. This provides mixed support for the intuition that ethnic conflicts are more violent. Surprisingly, secessionist conflicts are less likely to see high levels of insurgent violence. In each model the coefficient is negative and is significant in each model except 5, where it achieves marginal significance.

The logged value of the age of the insurgency switches signs throughout specification and never achieves conventional statistical significance. This is at odds with Kalyvas's (2006) contention that indiscriminate violence becomes counterproductive as a long-term strategy. Yet his assertion specifically concerns indiscriminate violence. It is still possible that over time rebels become more selective in their targeting, but do not reduce the number of persons killed. The theory constructed here suggests that violence is a response to changes in the strategic environment and is therefore likely to be coincidentally related to time. More severe conflicts generate higher numbers of civilian deaths. The conflict severity variable is positive and significant across the various model specifications. The size of the conflict zone is insignificant in each model, as is conflict area density.

Contrary to recent qualitative analyses, the presence of gems or drugs in the conflict zone is statistically unrelated to the level of rebel violence.<sup>16</sup> The results also suggest that lootable resources may have differing effects on battlefield casualties (see Lujala, 2009) and intentional civilian deaths.<sup>17</sup> These results beg further exploration into the relationship between resource endowments and violence against non-combatants.

<sup>16</sup> Other specifications separated gems and drugs. See online data appendix for details.

<sup>17</sup> Weinstein (2007) uses battlefield rather than civilian deaths as the dependent variable.

Weinstein's (2007) argument technically asserts only that lootable resource-reliant rebels are more violent, not that the loot itself drives violence. Explaining when rebels choose to rely on such resources is an important step in explaining their relationship to violence.

The results do, however, suggest that rebel groups that receive material support from external patrons are more prone to violence toward civilians. The differing effects of material support and lootable resources raise an important question that should be addressed in future analyses. While somewhat puzzling, a possible (though speculative) answer may be found in the manner in which the two income sources affect insurgents' reliance on local populations. Arguably, insurgents must still rely on local peasants to provide the manpower for resource extraction; as such, targeting this population may deprive insurgents of the very groups necessary to exploit the resources. Rebels that receive significant material resources from abroad (particularly in the form of weapons and troops) face no such problem of dependence. Rather, foreign-backed rebels can target civilians for violence without fear of undercutting their ability to acquire resources.

Development level is significant and negatively correlated with rebel violence in each model. In the linear models, however, the variable fails to reach significance. Regime type is significant and positive in each model presented here. These results largely support the theory that terrorists target democracies more frequently than autocracies as well as the thesis that civilians represent a pressure point for liberal governments (Hultman, 2007b; Pape, 2005).

Finally, in Models 1 through 3 the coefficients and corresponding *p*-values for the Cold War suggest that insurgencies occurring before the end of that era were characterized by comparatively less violence than more recent conflicts. This result supports arguments that 'new' insurgencies are more prone to gratuitous violence than their Cold War counterparts. However, this result should be viewed with some skepticism. First, in the more inclusive models the result is not significant. Second, this analysis includes only the final two years of the Cold War. More importantly, from a theoretical standpoint, the causal mechanisms of the theory deserve greater scrutiny. Changes in the international system at the end of the Cold War influenced power dynamics between states and rebels, but the end of the era is not itself a root cause of changes in rebel violence.

## Conclusion

This article has argued that weak rebels facing resource mobilization problems engage in violence against civilians as means to acquire necessary resources and prevent collaboration with government forces. The decision to use violence is informed by the inability of the group to credibly offer incentives that are competitive with those provided by the state. Stronger rebels, by contrast, are better equipped to make competitive offers to potential supporters. Comparatively capable

insurgent groups, therefore, have fewer incentives to resort to violence to acquire support. This analysis also clarifies existing theories regarding the relationship between government violence and support for the insurgents among the civilian population. As opposed to a linear relationship, it argues that extant insurgent capability affects civilian response. State violence only benefits the insurgents once they can credibly commit to improving civilians' prospects for survival or offer other incentives to compensate them for the risk they undertake in supporting the rebellion.

Scholars have only recently begun to unpack the complex relationships that shape the decision to resort to civilian victimization. A principal confounding factor for this area of inquiry is the manner in which multiple features of the strategic environment likely interact to incentivize or constrain rebel violence. As this analysis has demonstrated, increasing rebel strength is positively related to lower levels of violence, yet foreign assistance – which often significantly bolsters insurgent capabilities – increases violence. Under what conditions, then, would foreign support improve the bargaining power of insurgents and when does it spur greater violence? Similar questions might be raised regarding extractable resources.

This analysis addresses one side of a strategic interplay between rebels and regime. Yet, what motivates the state to adopt a policy of indiscriminate violence when doing so is often a counterproductive strategy? This has been addressed indirectly herein and more directly in other analyses (e.g. Mason & Krane, 1989). Still, few analyses have explicitly modeled both actors simultaneously, let alone incorporated civilian strategies. To reiterate an earlier point, multiple factors imbedded within the conflict environment interact to shape rebel capabilities; moreover, these capabilities and the strategies that they induce change endogenously over time. Scholars should attempt to tease out these factors – perhaps formally or through more in-depth case analyses – to determine when and how they alter strategies of violence.

Investigating interactions among rebel groups within the same conflict is another fruitful avenue of research. The model developed here implicitly assumes an ideal-type rebellion in which one rebel group challenges state forces for control of the government or territory. States, however, often face multiple, simultaneous insurgencies. The dynamic relations among these groups are poorly understood. In some cases, insurgents form short-term alliances, as have secessionist groups in India's Assam and Bodoland regions, or unite under a common banner, as with the factions of the FMLN in El Salvador. Others, such as the various militant organizations in US-occupied Iraq, engage in turf wars. More complicated still, alliances may give way to rivalries (or vice versa) as occurred in Afghanistan in the 1980s and 1990s. Unraveling these dynamics is particularly important if scholars wish to fully understand the dense web of interactions that guide insurgents' decisions to use violence.

## Replication data

Data can be found at <http://www.prio.no/jpr/datasets>.

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