

Twisting Arms and Sending Messages: Terrorist Tactics in Civil War*

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Abstract:

We apply a bargaining perspective to understand the strategic rationale for terrorist tactics in civil war. Terrorist tactics can be helpful as an instrument of coercion to exert pressure on the government in asymmetric conflicts, where rebels are typically weak relative to the government, as well as to communicate the goals and resolve of a violent group when there is widespread uncertainty. We identify conditions that favor terrorism and the specific targets as a function of rebel goals and government responses to political demands. We analyze our propositions by linking data on actors from the Uppsala Armed Conflict Data and the Global Terrorism Database. Rather than looking at overlap between incidents or use/absence of terrorism in civil war as a dichotomy we consider propositions on the extent to which specific organizations use terrorist tactics, which better reflects the strategic importance and rationale for terrorism.

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Introduction

Terrorism and civil war has traditionally been studied in separation, by different scholarly communities, often using very different theoretical and empirical approaches. Although some scholars have tried to search for mutually exclusive definitions and operationalizations to differentiate terrorism and conventional attacks, others point to how many conventional civil wars also involve extensive terrorism, at least if defined as indirect forms of violence. There has recently been a growth in interest in examining the overlap between civil war and terrorism and what makes rebel groups likely to use terrorist attacks as a tactic. Most existing research has been largely descriptive or inductive, primarily focused on assessing whether terrorism is a weapon of the weak, or quantifying the degree of overlap. We argue that it is more helpful to focus on the plausible motivation and incentives for groups in civil war to resort to terrorism as well as the limiting factors that makes terrorism less attractive relative to conventional forms of attack. We propose a bargaining perspective on violent interaction between rebels and states and develop a number of propositions on when non-state actors are likely to choose terrorist tactics, highlighting the link between specific tactics and group objectives, the resources available to groups, and anticipated government responses. Whether terrorist tactics and civil war overlap or whether terrorism is used in civil war at all or not in a binary fashion are to some extent the wrong questions; First, overlap alone does not tell us whether the specific events are carried out by the same organization or different organizations. Second, since occasional use of terrorism could be a fluke or actions not clearly condoned by the leadership or strategic choices per se, it is more informative to consider explicit strategy, which we argue is better done by propositions in terms of the intensity that an organization uses terrorist by using counts of terrorist attacks. Finally, we consider differences in the choice of hard and soft target by actor profiles.

Understanding terrorism in the context of a civil war

There is a tendency in conflict research to see different forms of conflict as mutually exclusive, and terrorism has from such a perspective often been considered inherently distinct from conventional civil war (see, e.g., Asal et al. 2012; de la Calle and Sánchez-Cuenca 2012; Sánchez-Cuenca and de la Calle 2009). However, an alternative perspective sees terrorism as a specific tactic in conflicts between states and non-state actors, defined by the use of attacks that involve indirect targeting of opponents rather than direct conventional attacks (e.g., Sandler 2014). Conventional definitions highlight civil war as conflict episodes between the government and a non-state group that generates more than some threshold number of battledeaths from the confrontations (see, e.g., Gleditsch et al. 2002; Sambanis 2004). It is thus clear that most theoretical definitions of the two phenomena need not be mutually exclusive, and recent research has indeed shown that there are many cases where terrorist attacks overlap with episodes of civil war (see, e.g., Findley and Young 2012; Stanton 2013).

Terrorism differs from the activities commonly highlighted as typical in conventional civil war in that the immediate targets or victims typically are non-combatants, and each individual victim is often less important as a specific target than the broader purpose of conveying a message to the intended audience through the attack. In the context of an ongoing civil war, terrorist tactics can serve multiple strategic objectives, including coercion of the government, intimidation and control of the population, as well as outbidding between competing groups.¹

¹ Spoiling in peace processes is another important motivation for attacks, but this is less relevant for ongoing civil wars (see e.g., Findley and Young 2012).

A bargaining representation provides a useful framework for understanding the choice of strategies in conflict. In the canonical bargaining model, the actors bargain over some continuous outcome, where their relative power p and the costs of conflict c determines the range of outcomes that both parties will prefer to conflict as a costly exit option, if they fail to agree (e.g., Fearon 1995). It is common to think of p as indicating the likelihood that one party will in the event of a war, often conceptualized as a lottery where one of the parties will win the entire prize, minus the cost of war. Instead of assuming war that parties either win or lose in a binary fashion absent a formal agreement, an alternative way to think about p is how the relative strength of the actors shape the likely outcome of a conflict in terms of the concessions that one of the side can plausibly extract, or the likely shift relative to the existing status quo q through coercion (e.g., Hirshleifer 1988). Thus, if the distance between q and p is large relative to the cost of conflict c , then one party may believe that it can improve on its position through coercive tactics.

In the context of tactic choice by a non-state actor we can think about how the choice of specific strategies influences p and c . Figure 1 provides a conventional bargaining representation of conflict over some continuous issue between a government j and a non-state actor i . Figure is scaled so that a particular value x closer to 1 represents divisions more favorable to government j while the non-state actor receives $1-x$. Dissidents prefer outcomes closer to 0, and values of p closer to 0 thus indicate a balance of power more favorable to the rebels. The status quo outcome q is here strongly biased towards the government position, more so than the expected outcome of a conflict based on the relative power of the actors, ignoring the costs. We represent the costs of conflict c subscribed for the relevant actor around the expected outcome p , subtracting the costs for the government for the expected outcome $p-c_j$ and adding the costs of the non-state actor with the expected outcome $1-p+c_j$. For simplicity, we distinguish between non-state

actors choosing a conventional military strategy m (upper panel) and a strategy using terrorist tactics t (lower panel). We here envision a case where the actors are involved in a civil war or direct confrontation, and thus do not seek to explain why the parties have fail to reach an agreement.

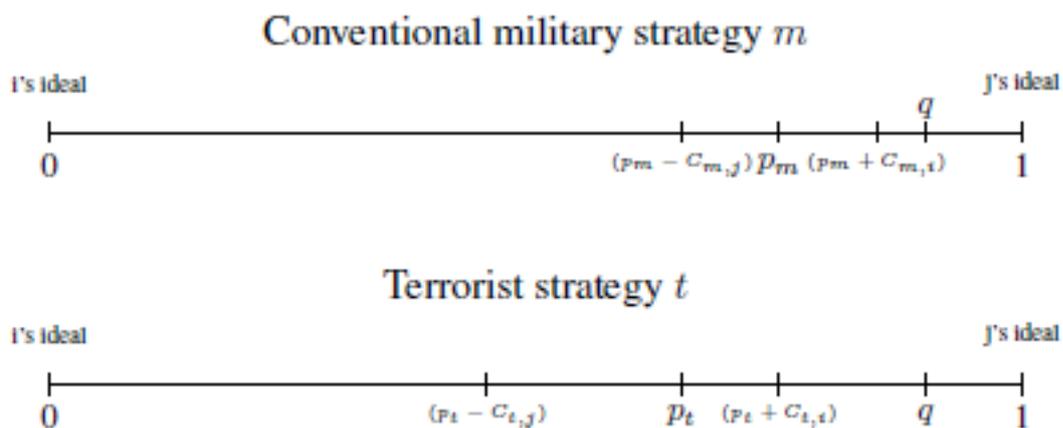


Figure 1: Bargaining under conventional military strategy m versus terrorist strategy t

In general, actors will chose the strategies that increase their chances of doing well in a contest, or to extract some form of concession from the opponent, even if not a formal agreement, or strategies that are likely to impose more significant costs on the opponent. From this perspective, terrorism may be a helpful tactic in civil war if it can help increase p , or if the non-state actor perceives that it can do better using indirect targeting than direct conventional attacks. In this regard recent research demonstrates that rebel groups are both more likely to be granted the opportunity to participate in negotiations and offered more concessions when they execute a greater number of terrorist attacks during civil wars (Thomas 2014). Figure 1 is drawn such that p is lower (i.e., more favorable to the non-state actor) if the non-state actor uses a terrorist strategy compared to using a conventional military strategy m . This may occur, for example, if a non-state actor has few resources to

do well in a conventional battle against the government, but can gain victories through covert operations or hit and run attacks against government forces. Alternatively, terrorism can be beneficial if a strategy focusing on indirect targeting and covert operations can help minimize c or the costs of conflict to the non-state actor, or increase the costs of conflict to the state actor. The first can be the case if indirect targeting or covert operations make it easier to evade detection and attacks from the government. The second is applicable if terrorist strategies succeed in inflicting larger costs on the government than conventional attacks, either in terms of direct costs or undermining political support for the government. Figure 1 indicates a case where the costs to terrorist would be smaller under a terrorist strategy than a conventional military strategy and terrorism would entail relatively higher costs for the government. From this perspective, understanding variation in the use of terrorism in civil war entails identifying specific actor constellations and context that are likely to entail these conditions.

Terrorism in civil war takes place in the context of asymmetric conflict. The asymmetry stems in part from the clear difference in military capabilities between the government and non-state actors, which typically have fewer resources than the state. However, relative strength and costs are partly determined by known actor characteristics, but bargaining approaches to conflict also highlights the role of information and uncertainty (e.g., Fearon 1995; Gartzke 1999). There is also an important asymmetry in the information available to both parties in civil war. In particular, the government typically knows less than the rebels with respect to the capabilities, support, goals, resolve etc. of its counterpart. From this perspective, terrorist tactics can be used to address or compensate for uncertainty about rebels' relative capabilities, resolve, and willingness to inflict harm. In this respect, they can be regarded as an instrument of coercion (exercise pressure on the government by threatening to inflict future harm) as well as intimidation

(against the population). Moreover, terrorist violence and specific targeting strategies can be effective to communicate terrorists' actual goals (and constraints or lack thereof) to both the government and the civilian population more than verbal declarations or statements.

Our explanation of terrorism in civil war focuses on the strategic advantages (or disadvantages) that this tactic can provide for actors and their resulting incentives to use terrorism extensively. The proposed explanation is articulated at two levels. First, we look at conditions that may favor the use of terrorism as opposed to non-terrorist tactics. Second – and noting that the majority of rebel groups involved in civil war do use terrorist tactics – we look at variation in the specific forms of terrorist violence by analyzing the targets of terrorism. The latter in fact are related to the perceived indiscriminate nature of some terrorist acts as opposed to others which appear more selective. More specifically, we look at how factors related to the attributes and characteristics of specific non-state actors (i.e., goals, constituency, ideology, capabilities) and government characteristics and actions can shape the strategic environment in which groups operate and influence the specific terrorist strategies adopted in the context of a civil war.

When do rebel groups carry out terrorist attacks?

In this section we first develop a series of propositions on the use of terrorism, based on the opportunities for terrorism and the strategic advantages of terrorist attacks in terms of their effects on relative strength and costs. We organize our propositions around the relationship between the rebels and the government as well as key structural conditions that favor terrorism.

Group strength

Our first proposition relates the incentives for terrorist attacks to the military strength of non-state actors in civil war. In terms of our previous discussion, the relative strength or size of p for conventional tactics determines the likely advantage or disadvantage of terrorist tactics. Stronger rebel groups are unlikely to use terrorist tactics intensively, because their larger relative capabilities allow them to better fight against the government using conventional military tactics (see, e.g., Cunningham et al. 2009). Moreover, as groups get stronger, their incentives and feasible objectives are likely to change, and groups are likely to be more concerned about suffering potentially counterproductive effects of terrorism. Stated differently, the relative costs of terrorist strategies may be higher than the corresponding costs of conventional attacks, in particular with regards to the implications for popular support for the group. Groups that have an aspiration to garner support from a large audience and govern a territory need to be more sensitive to tactics that risk alienating their own constituency (e.g., Beardsley et al. 2013; Stanton 2013). These trends will make terrorism relatively less attractive relative to conventional tactics, even if terrorist attacks can have short-term advantages. Thus, our argument is not simply stating that terrorism is a weapon of the militarily weak, since civil wars clearly represent a relatively high end of political violence or some minimum and the ability to take on the state in a direct confrontation may be beyond the abilities of many smaller groups that use terrorism. Rather, we argue that the counterproductive effects of terrorism for actors in civil war may outweigh the possible military compensation in specific circumstances.

Government repression

In addition to military capabilities and the ability to carry out conventional attacks, the incentives of groups to use terrorism and the potential costs from terrorist tactics are likely to hinge on government responses (see, e.g., Daxecker and Hess 2013). Governments often respond harshly to threats from non-state actors, often resorting to indiscriminate repression against non-combatants. Repression in essence seeks to increase the costs of attacks by the non-state actor. This can potentially deter non-state actors from carrying out attacks, and may be effective in the short run. However, it is also well known that indiscriminate repression can be counterproductive in decreasing popular support for the government and increasing support for the rebels (see, e.g., Lichbach 1987). In light of this, we expect that a history of government violence may lower the costs of using terrorism for weaker rebel groups, through providing greater popular support for selective terrorist attacks when facing a repressive government. In terms of the parameters of a bargaining model, terrorist tactics become more attractive if the political costs of terrorist activities to the non-state actor become lower relative to conventional targeted tactics under a highly repressive state.

Freedom of the press

The objective of terrorism is not just to carry out attacks that create physical damage, and the publicity and wider attention to the group and its goals that arise in the aftermath of spectacular attacks is often just as important in motivating groups (c.f., Jenkins' 1975: 15 famous quote that "terrorists want a lot of people watching, not a lot of people dead"). Greater salience or attention to the group can both increase the costs of conflict to the government as well as raise the profile of the group, which in the long run can allow the

group to recruit and improve its power relative to the government. Although freedom in general should discourage initial motives for violence by non-state actors, greater openness can increase the opportunities for non-state actors to advertise their presence or activities to the intended audience. In light of this, we expect that greater press freedom creates better condition for the effectiveness of terrorism as a strategy to spread fear and publicize the rebels' cause. Note that press freedom is not the same as democratic institutions, as even states that do not have fully competitive elections sometimes have an independent press with some degree of freedom and autonomy (van Belle 1997).

What do rebel groups target in terrorist attacks?

We have discussed above conditions that make rebel groups more likely to use terrorism in ongoing civil wars, based on the relative advantages and costs of terrorist attacks relative to conventional military attacks. The arguments delineated above have implications just not for the choice of using terrorism as a tactic, but also speak to the specific targeting strategies that non-state actors are likely to choose. Terrorism is sometimes equated with indiscriminate violence and attacks on civilians, but not all terrorist violence in civil war is indiscriminate or only intent on demonstrating the government's lack of control. Many terrorist attacks are directed against "hard" targets, including government agencies or specific targets that have some symbolic association with government. Although "soft" targets may be easier or less risk for groups, attacking civilians can in many cases be counterproductive with regards to the intended audience of the group, in the sense that they would alienate potential supporters. As such, civilian targets would thus be less attractive than harder targets for the group, even if the latter is better protected and harder to attack in a logistical sense. In this section, we expand our

above discussion of the use of terrorist tactics to explain differences in the forms and targets of terrorist violence.

Typology of goals, ideology, audiences

The objectives or ideology of a group and its relationship to an audience are key to understanding what constitutes meaningful and more counterproductive possible targets. In the words of Gutierrez and Wood (1974), ideology entails “a set of more or less systematic ideas that identify a constituency, the objectives pursued on behalf of that group, and a program of action”. Ideology is important in an instrumental sense by socializing combatants into more cohesive groups and prescribing specific actions. The correspondence between the ideology of a group and its actions are related to both its potential strength p as well as the specific costs c of different types of actions or targets. In order to be viable, or preserve sufficient relative strength to a government, a group in a civil war needs to be able to recruit active members from its target audience (e.g., Clauset and Gleditsch 2012). With regards to costs, ideology shapes the degree to which indirect targeting and indiscriminate violence can be seen as acceptable or illegitimate. One key mechanism here pertains to how the ideology and audience of a group shapes its “othering”, that is, the degree to which possible civilian targets are deemed to be outside the intended constituency and legitimate targets (e.g., Asal and Rethemeyer 2008). When othering is strong, the costs of terrorist attacks against civilians outside the audience will be lower, in the sense that there is less risk of alienating potential supporters and undermining future recruitment. For groups with weaker ordering, or fluid boundaries, the costs of violence against civilians will be larger, and indirect targeting is more likely to

occur against targets more closely associated with the government. We expand below on how specific types of ideologies will influence the likely types of targets.

First, groups that seek to take over the government or rule that country that have a non-sectarian ideology will normally have a large potential constituency that they seek to appeal to. Given the inclusive nature of their claims, we have weak othering. Since there is no clear “out-group”, and it will be more difficult to justify attacks against civilians. We believe that such groups are more likely to attack official and harder target such as the military, government, police, infrastructure, utilities regardless of regime type. These groups will seek to maximize material damage to the government, but they will be more careful in trying to avoid large casualties.

By contrast, secessionist and ethnonationalist groups (including ethno-religious groups) focus specifically on advancing the interests of a specific communal group. This yields a much stronger othering with regards to individuals that can be seen as associated with the government or its constituency. In general, there is a still clear rationale for rebel groups to primarily attack official and harder targets, but the group has more autonomy to pursue coercion through soft target as long as it manages to avoid victimizing its core constituency.

Moreover, the ability of a group to focus on hard target or selective violence will be limited by their capabilities. Groups that are very weak may have only limited ability to conduct targets outside the core area of the group. In this sense, their weakness limits their coercive efforts through more selective violence. This is also likely to generate a tradeoff between the benefits of terrorist violence and the potential downside for ensuring the support and compliance of their own population, hence they have more incentives for

civilian targeting (in other words the strategic goals of coercion and compliance require a different targeting strategy).

In addition to the key difference between universal and sectarian claims, we believe that there is a difference between different types of non-universal claims that can have an impact on the willingness to attack soft targets. We thus focus on a typology that distinguishes between different types of sectarian ideologies and audiences that we believe more or less permissive. Groups with a religious ideology also have strong othering with respect to non-believers. Moreover religion can provide a sort of transcendent morality which allows groups to justify the targeting of civilian non-believers and may ultimately generate a “moral disengagement” (Bandura 1990:164), because when groups come to believe that their actions are justified by God they can more easily displace guilt or responsibility for them.

Finally, groups without a clear ideology and goals are also more likely to attack prevalently soft civilian targets because the absence of a specific constituency, whether large or sectarian, considerably reduces the cost of civilian targeting in terms of support. In fact, similar groups often receive support from foreign governments, as in the case of Renamo, or are driven by private motives such as looting or rent extraction, such as the Revolutionary United Front (cf. Weinstein, 2007) and thus have fewer inhibitions against attacking civilians.

Table 1: Summary of goals, ideology, and implied audience

Goals	Ideology	Audience
Ruling the country- Governmental change	Political ideology (in the strict sense). Inclusive	Large potential constituency, no ascriptive identity. Weak othering
Secession- Improving the political situation of an ethnic community	Ethnonationalist-ethnoreligious Exclusive (but with constraints)	Defined actual constituency based on communal identity. Strong othering
Establish a religious state (no specific ethnicity)	Religious. Exclusive	Actual constituency (possibly transnational). Strong othering
Other-unclear goals (war by proxy, resource extraction etc.)	Undefined	No constituency (external support)

Table 1 provides an overview over variation in goals, ideologies, and audience. To summarize, we propose the following testable propositions on how ideological profiles will influence the choice of hard and soft targets:

- Rebel groups with a universalist political ideology such as leftist or rightist and with a large potential constituency are more likely to prevalently attack hard and official targets.

- Rebel groups that seek regime change and with a large potential constituency are more likely to prevalently attack hard and official targets.
- Strong ethno-nationalist and ethno-religious groups which represent a specific ethnic community are more likely to attack prevalently hard and official targets.
- Weak ethno-nationalist and ethno-religious groups which represent a specific ethnic community are more likely to attack prevalently soft civilian targets.
- Religious groups are more likely to attack prevalently soft civilian targets.
- Groups without a clear ideology and goals are more likely to attack prevalently soft civilian targets.

Data and Research Design

To apply our actor-based approach to the study of terrorism in civil wars we have compiled a new dataset, which relates actors in the Armed Conflict Dataset (ACD) and in the Global Terrorism Database. Since the GTD does not cover years before 1970, we have extracted the list of rebel groups involved in intrastate armed conflicts from 1970 to 2011 and matched these with terrorist organizations in GTD for the same years on a case by case basis. The matching was done for the specific years in which groups were involved in a civil war therefore we have disregarded cases where groups perpetrated terrorist attacks in years without a civil war. In most instances group names are the same or very similar. However, in a few cases additional research was done to establish correspondence between actors in the two datasets. Sometimes the ACD dataset provides generic names for insurgent groups, such as Kashmir Insurgents, whereas the GTD indicates the specific names of organizations involved in the Kashmir conflict. In these cases we have aggregated information on the terrorist events associated with those organizations and

matched these with the ACD actor. For each ACD actors we have also indicated the specific targets of terrorist attacks.

The final datasets comprises 1979 rebel group-years and 394 unique rebel organizations. These actors are the same as in the UCDP dyadic dataset for the years 1970-2011. Almost 54% of the groups do not have any recorded attacks over their lifetime. However, many of these groups are short-lived, and the proportion that do not carry out any terrorist attacks fall to less than 38% when we exclude groups that are active in a single year. A little less than fifty per cent of group-years have experienced at least one terrorist attack. This is relatively similar to the proportions found by Findley and Young (2012) looking at the geographical overlap of individual terrorist attacks and conflict zones. The distribution of attacks by year varies a great deal, with some groups such as Sendero Luminoso consistently recorded with hundreds of attacks over several years.

Data on the ratio of rebel troop size relative to government troops are gathered from Wood (2010) for the years between 1989 and 2009. For the remaining years we have used the Non State Actor dataset (Cunningham et al. 2009) for data on rebel troops and the Correlates of War National Material Capabilities for military personnel data. Government violence is coded based on the Political Terror Scale (2013, see also Wood and Gibney 2010) as a categorical variable ranging from 1 to 5. Data on media freedom are gathered from Freedom House Freedom of the Press data (2013) as well as from Van Belle's (1995) media freedom index and we have generated a categorical variable ranging from 1 to 3 where higher numbers indicate less media freedom.

The identification of ideology types was done following the classification of ideologies in the Terrorist Organizations' Profiles (see <http://www.start.umd.edu/tops/>).

However we have differentiated between ethno-nationalist and/or separatist groups with a specific ethnic claim and groups seeking regime change but without a clear ethnic affiliation. Other categories include ethno-religious, religious, Marxist-socialist (leftist), right-wing, coups, and groups without a specific ideology and clearly stated goals. This typology is relevant also to identify the type of “othering” which a given ideology entails (Asal and Rethemeyer 2008) and the characteristics of rebel’s constituency (e.g., large or sectarian). In order to code the ideology of each rebel organization we have used information from multiple sources including the ACD2EPR dataset (Wucherpfennig et al. 2012), the Terrorist Organizations’ Profiles, the UCDP Conflict Encyclopedia.

Typology hard and soft targets

So far we have only talked informally about soft and hard targets without specifying what we mean by each. In Table 1 we derive a more formal aggregation by taking the target type categories reported in the Global Terrorism Database and classifying these as either hard or soft. In general, our classification of hard targets indicates all targets associated with the government, including the police and core infrastructure which underpins the state and its control. By contrast, targets that are soft include independent organizations and individuals that have no official role in the state apparatus.

Table 1: Typology of soft and hard targets

Hard and Official Targets	Soft Civilian Targets
Government (general)	Business
Police	Educational institutions
Military	Journalists and Media
Airports and aircrafts (excluded hijacking etc.)	NGOs
Government (diplomatic)	Private Citizens and Property
Food and water supply	Religious Figures/Institutions
Maritime	Tourists
Telecommunications	Other (includes ambulances, refugee camps etc.)
Transportation	
Utilities	

Figure 1 displays the distribution of hard and soft targets for all group years where we have at least one attack. It is clear from Figure 1 that we have a fairly large number of observations where groups attack only hard targets and soft targets respectively. Despite the emphasis on terrorism and soft targets in much popular commentary, there is actually a slightly higher proportion of groups in civil war that only attack hard targets than the share that only attack soft targets. However, these cases of clear separation aside, there is also large share of observations that entail varying mixes of hard and soft targets. This also suggests that it is problematic to look only at counts of hard and soft targets separately, since these fail to distinguish cases where counts may be low either because a group does not use terrorism at all and cases where groups engage in large amounts of attacks of the other type.

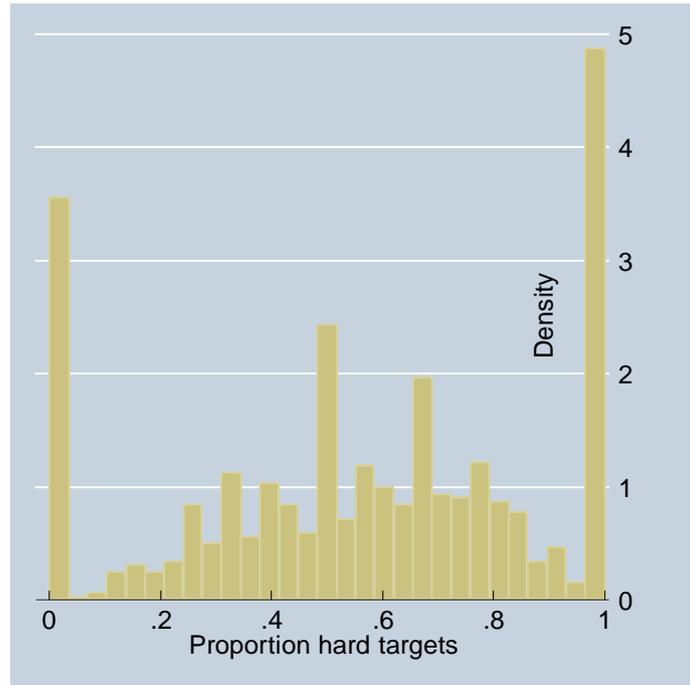


Figure 1: Distribution of proportion of hard targets

Empirical results

To examine our propositions on the extent to which we see terrorist attacks by specific non-state organizations we first estimate a negative binomial on the number of terrorist attacks attributed to the group. We report robust standard errors, clustering on the specific organizations. The alpha parameter is significant, indicating that we see a clear clustering of attacks and that the individual events in this case do not seem to be independent of another.

Table 2: Negative Binomial Regression, Terrorist attacks

Variable	Coefficient	(Std. Err.)
Troop ratio	-0.442*	(0.183)
Political terror scale	0.399**	(0.127)
Media freedom	-0.789**	(0.220)
Ln population	-0.158	(0.106)
Ln GDP per capita	0.119	(0.190)
Democracy	0.334	(0.233)
Time since last attack_binary	-1.257**	(0.131)
t2	0.124**	(0.025)
t3	-0.003**	(0.001)
Intercept	3.966†	(2.331)
Ln α	1.491**	(0.120)
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N	1577	
Log-likelihood	-4308.115	
$\chi^2_{(9)}$	158.617	
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Significance levels : † : 10% * : 5% ** : 1%		

With regards to our propositions, we first find clear support for our expectation that a higher troop ratio relative to the government make groups less likely to carry out terrorist attacks. This is consistent with our proposition that groups that are better equipped to rely on conventional attacks are less likely to use terrorist attacks intensively. Our results are limited to terrorism of civil war, and thus cannot speak to cases where terrorist organizations are not engaged in conventional conflict reaching the conventional civil war battle deaths threshold. Fighting a civil war against the government requires a substantial degree of resources and organization, beyond what very weak organizations can muster, so a sample of groups using terrorism in civil war would already exclude many of the weakest groups. Still, within this sample, we do find evidence that the weakest groups in civil war are more likely to use terrorist tactics extensively, consistent with the notion that they have low capacity to carry out conventional attacks against the state.

With regards to our propositions on state responses, we find a positive and significant coefficient for the Political Terror Scale on terrorist attacks. The coding of the PTS index implies that higher values indicate greater repression (the variable ranges from 1 to 5). As such, the findings are consistent with our claim that groups are more likely to use terrorism in civil wars where the government response is more repressive, in part because the costs of using terrorism in terms of loss of support decline and the audience will become more permissive of terrorism if the government is seen as repressive and unresponsive.

Our final proposition posited that we should be more likely to see organizations using terrorist tactics in a situation with more media freedom, since this will make it more likely that terrorist attacks will be widely publicized, and hence provides more incentives to communicate through terrorist attacks. Note that the media freedom measure is constructed so that lower values indicate higher freedom (the variable ranges from 1 to 3). As can be seen in Table 2 we find a negative association between media freedom and the number terrorist attacks, consistent with our claims.

The control variables are generally not significant, and there is little evidence that the likelihood of terrorist attacks in civil wars change notably depending on the populations size, wealth, or democracy status of a country. The latter is important, since it implies that our findings with regards to the effects of media freedom cannot be attributed to any general effect of democracy on increasing incentives for terrorism (e.g., Li 2005). Furthermore we find that including these terms in the model does not have much of an impact on the other estimates. As such it does not appear that the findings for our key variables are likely to reflect other things associated with terrorism and our key covariates of interest.

Figure 2 illustrates the implied marginal effects on the number of attacks over changes in the key covariates of interest, for a median non-state actors in civil war profile. We consider changes if the troop ratio (left) ranging from the common case where rebel groups are substantively smaller than the government towards cases where we see a rebel 2:1 advantage over the government. (Our data actually contain even more extreme values than this, but 99% of the observations have troop ratios below 2 and 95% are below 1.) The predicted number of attacks falls by over 50 percent (i.e., from over 8 to less than 4) as the military strengths of the rebels increase. For the changes in the other features, we hold the troop ratio at the very low median value of 0.04, which means that the marginal changes will be considered relatively to a high baseline. With regards to the Political Terror scale (middle), the predicted number of attacks increases by a factor of over 3 when we go from the lowest to the most repressive state. Finally, for media freedom, we find that the predicted number attacks falls to less than 1/4 of the original number (e.g., 20+ to about 5) as we go from a situation with the greatest to the least free press (keeping in mind that higher values indicate less media freedom).

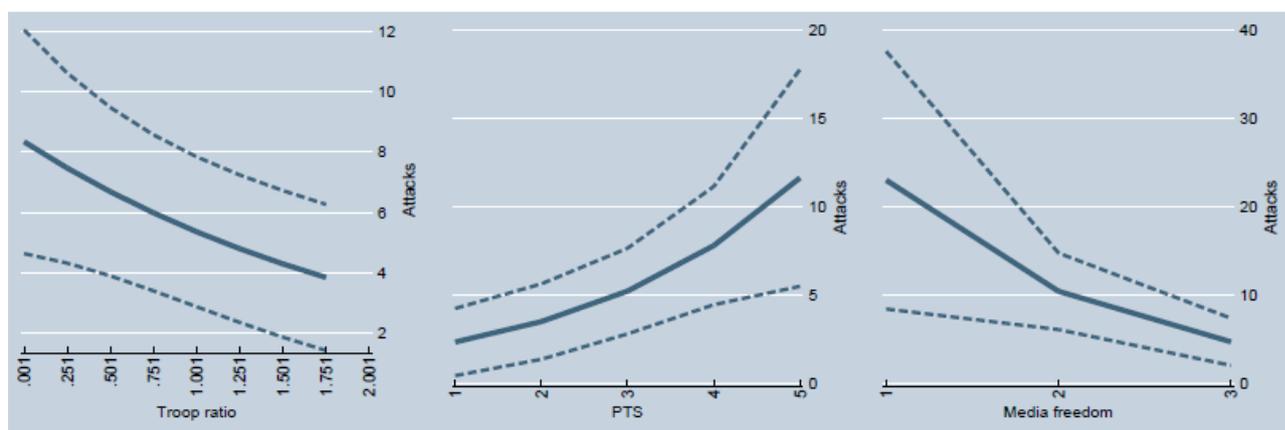


Figure 2: Marginal effects on predicted attacks by troop ratio (left), PTS (middle), and media freedom (right)

We now proceed to look at the degree to which organizations attack hard or soft targets, looking at the proportion of the target types for those organizations that have carried out more than one attack, using the regression for proportions estimator based on the logit transformation of the proportions discussed by Papke and Wooldridge (1996). In Table 3 we report the results, again using robust standard errors clustering on actors. With regards to interpreting the effects of the dummy variables for the ideological profiles the omitted category is Marxist-socialist organizations. As can be seen, all the other ideology types have estimated negative coefficients for the proportion of hard and official targets over all targets the coefficients. This is consistent with our claims that ethno-religious, religious and groups without a specific ideology are all significantly less likely to attack hard targets, based on the implications of the audiences and othering. The results furthermore indicate that groups that seek regime change, without a link to a specific ethnic group, also have a negative coefficient, but here the estimate is not statistically significant.

Table 3: Regression for proportions, hard and soft targets

Variable	Coefficient	(Std. Err.)
Nationalist/separatist	-0.349*	(0.173)
Ethno-religious	-0.492*	(0.209)
Religious	-0.798*	(0.336)
Non-ideological	-0.705*	(0.324)
Regime change	-0.542	(0.492)
Democracy	-0.163	(0.195)
Political terror scale	-0.150*	(0.073)
Media freedom	0.030	(0.120)
Troop ratio	-0.105	(0.170)
Intercept	1.233**	(0.423)
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N	821	
Log-likelihood	-437.515	
$\chi^2_{(9)}$	20.878	
<hr/>		
Significance levels : † : 10% * : 5% ** : 1%		

We also include the indicators for our propositions on terrorist attacks in this model. With the exception of PTS, which has a negative coefficient, the terms are not statistically significant estimated coefficient. This suggests that the factors that make terrorism a likely strategy by themselves do not provide strong predictive ability with regards to the specific targets.

To understand the implied effects it is helpful to consider the predicted proportions of hard targets by the different possible ideology profiles, holding other features at the median. We display these in Figure 3, in decreasing order for the predicted proportions. As can be seen, we are much more likely to see a high share of hard targets among leftists groups and different types of ethno-nationalist groups. Here the predicted proportion of hard targets exceed 50%, indicating the majority of targets are likely to be hard. By contrast, for groups that do not have a clear ideology, non-ethnic religious groups we are actually more likely to see attacks on soft targets.

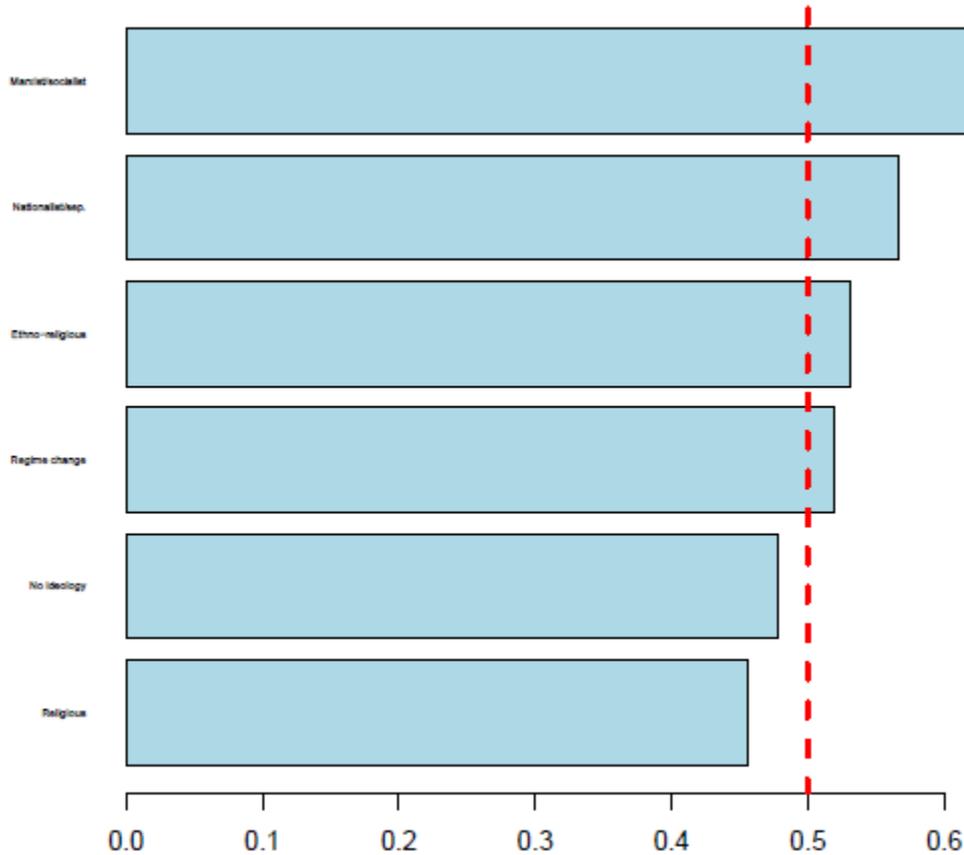


Figure 3: Predicted proportion of hard targets by group ideology

One problem which can affect group-level analyses of terrorism concerns the attribution of terrorist attacks. In fact, some terrorist attacks are unclaimed and therefore terrorism databases report an unknown perpetrator for these events. Obviously, due to the lack of a specific attribution we could not consider these attacks in our analysis since it would be impossible to link these with actors' characteristics and profiles. However, we have run some robustness checks first, to estimate how many terrorist events we would miss given our focus on actors and, second, to compare targeting patterns for both claimed and unclaimed events in civil wars to see whether there is any qualitative difference between them. To do so we have used the geo-coded location of terrorist attacks in the GTD for attacks claimed by rebel groups in civil war and attacks with an unknown perpetrator. We have then overlaid these attacks on the civil war polygons using the

Conflict Site data (Dittrich Hallberg 2012) in order to obtain, for each conflict polygon-year, the number and characteristics of both claimed and unclaimed attacks occurring within that geographic area. Figures 4 and 5 in the appendix display graphically this geographic overlay for the cases of Guatemala and Northern Ireland (with the location of claimed and unclaimed attacks in each polygon-year). The Conflict Sites Data only start from 1989 and therefore we could only perform the analysis for the years between 1989 and 2011. Table 4 in the appendix shows the total number of claimed and unclaimed attacks within conflict polygons for each conflict. Unfortunately the GTD does not provide the geo-coded location of attacks for each conflict or country and therefore we can only show results for the non-missing cases. However there does not appear to be any systematic pattern in the missing cases and therefore we are confident that these results can be representative of a larger sample. In general we can observe that the total number of claimed attacks is larger than the total number of unclaimed attacks and this holds even if we look at the specific conflicts (for the majority of conflicts the number of claimed attacks is either larger or very similar to the number of unclaimed attacks). And this is even more telling if we consider that the claimed attacks only include attacks claimed by actors involved in civil war in that specific year of conflict and not attacks claimed by other actors (including actors previously involved in the civil war) whereas the unclaimed attacks are attacks occurring within the conflict polygon but especially when the conflict polygon extends to cover the entire country these may not necessarily be related with the actual civil war (given the unknown perpetrator).

Table 5 in the appendix reports the median proportion of hard and official targets for claimed and unclaimed attacks occurring in each conflict polygon. The proportions look strikingly similar for most of the conflicts. Interestingly, for those conflicts where we observe a large number of unclaimed attacks (highlighted in table 4 and 5) we notice that

the proportion of hard and official targets for claimed and unclaimed attacks is almost identical thus reinforcing support for our main results. There are some cases where we do observe a relatively large difference in median targeting patterns between claimed and unclaimed attacks; yet, in most of these cases either the number of unclaimed attacks is very low (e.g. El Salvador and Northern Ireland) hence unlikely to make a difference for the overall proportions or the difference is actually in favour of our hypotheses, since, for instance, unclaimed attacks in ethno-nationalist conflicts show an even greater restraint than claimed attacks (i.e. a higher proportion of attacks against hard and official targets).

Conclusions

We have argued that an analysis of the relationship between terrorism and civil war should focus on agency and the rationale for specific actors to use terror in contentious interactions with the government. We have developed a bargaining perspective where actors in civil war may use terrorism as a measure of coercion or communication, deriving predictions about when terrorism will be more likely based on the ability of a group to carry out conventional attacks, government responses, and the likely media coverage. We then examined how ideologies shape attack patterns through the implied audience and notion of legitimate targets. We link terrorism attack data from the Global Terrorism Database to the Uppsala Armed Conflict Data to test our propositions. Our empirical analysis shows results consistent with our expectations.

More generally, we feel that our analysis provides strong support for the more general utility of an actor centered perspective on tactic choice, highlighting variation in tactics rather than focusing on individual tactics in isolation. A similar perspective is in

our view also likely to be helpful for understanding other tactics too, including tactics outside the use of violent coercion, and the prospects for settlements to conflict. Indeed, most contentious organizations engage in a wide range political strategies other than terrorism and conventional warfare, including political wings (if feasible) and possible direct negotiations with governments. Although it is not necessarily easy to consider such issues explicitly with available data, our core theoretical perspective suggests many extensions and additional predictions about what type of group profiles where non-violent strategies and feasible settlements should be more or less likely that at least in principle could be assessed empirically.

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Robustness checks

Attribution of attacks

Figure 4: Claimed (yellow) and unclaimed (blue) terrorist attacks in the Guatemala civil war

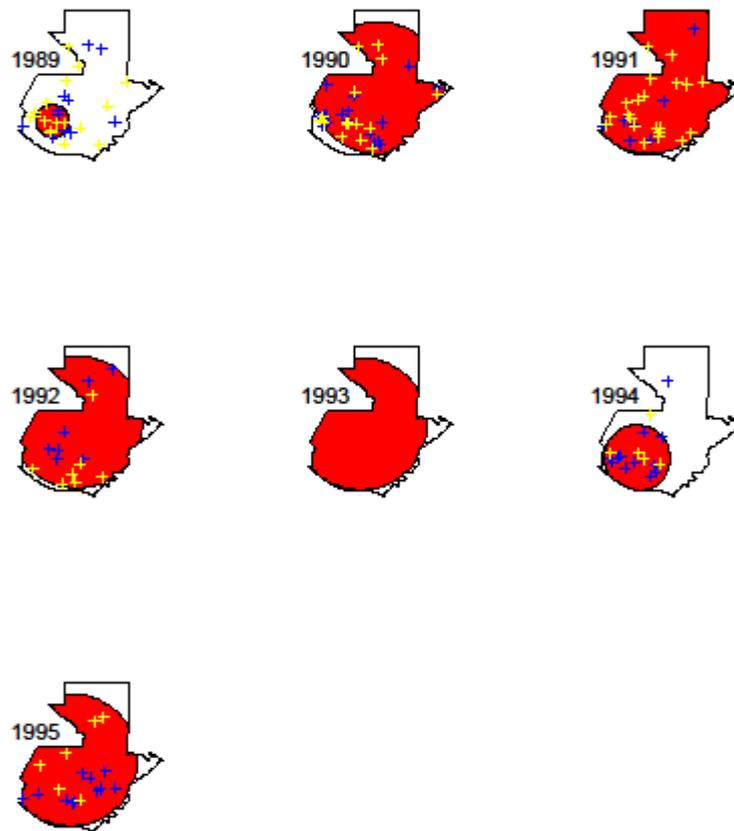


Figure 5: Claimed (yellow) and unclaimed (blue) terrorist attacks in the Northern Ireland conflict

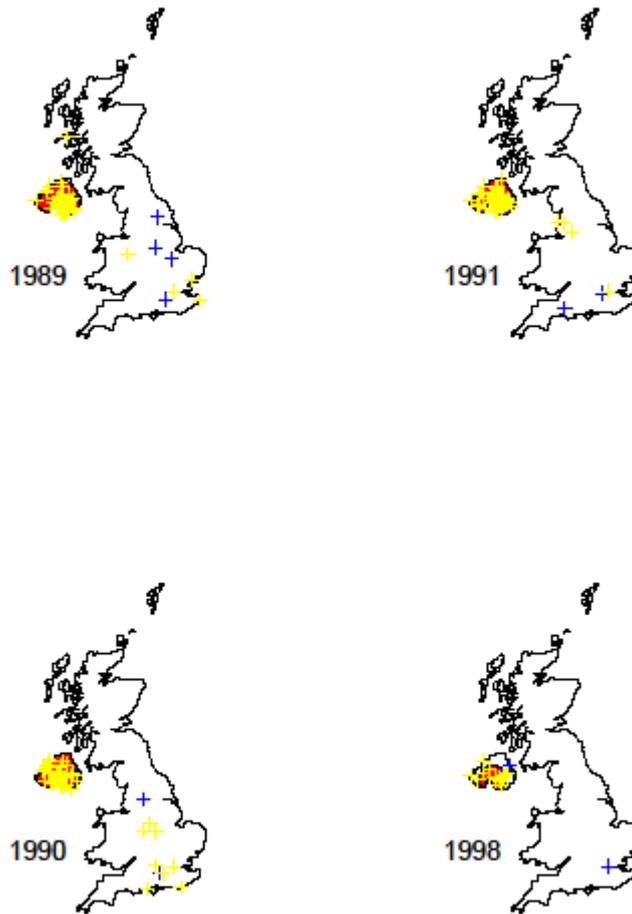


Table 4: Number of claimed and unclaimed terrorist attacks within conflict polygons

CONFLICT POLYGON	CLAIMED (by actors in civil war)	UNCLAIMED (unknown actor)
Algeria	610	816
Bosnia-Herzegovina	13	29
Cambodia	86	52
Croatia	1	3
Egypt	237	49
El Salvador	834	14
Georgia	12	30
Georgia (Abkhazia)	4	0
Georgia (South-Ossetia)	9	23
Guatemala	79	225
Indonesia (East-Timor)	7	8
Indonesia (Aceh)	108	43
Kosovo	10	13
Macedonia	35	19
Mexico	18	28
Nicaragua	16	5
Northern Ireland	726	56
Papua New Guinea	23	24
Russia (Chechen Republic)	292	303
Russia (Wahabi Movement)	1	3
Russia (Caucasus Emirate)	24	147
Soviet Union	16	19
Spain	106	18
Thailand	21	632
United States	1	3
Yugoslavia	26	41
	3315	2610

Table 5: Targeting patterns for claimed and unclaimed attacks within conflict polygons
(median proportion of hard and official targets)

CONFLICT POLYGON	CLAIMED (prop Hard and Official)	UNCLAIMED (prop Hard and Official)
Algeria	0.46	0.45
Bosnia-Herzegovina	0.83	0.80
Cambodia	0.64	0.44
Croatia	1	1
Egypt	0.68	0.82
El Salvador	0.87	0.25
Georgia	1	0.78
Georgia (Abkhazia)	0.50	NA
Georgia (South-Ossetia)	0.33	0.74
Guatemala	0.51	0.52
Indonesia (East-Timor)	1	0.82
Indonesia (Aceh)	0.73	0.82
Kosovo	0.20	0.30
Macedonia	0.53	0.77
Mexico	0.62	0.46
Nicaragua	0.60	0.75
Northern Ireland	0.61	0.45
Papua New Guinea	0.81	0.80
Russia (Chechen Republic)	0.84	0.80
Russia (Wahabi Movement)	1	0.80
Russia (Caucasus Emirate)	0.81	0.80
Soviet Union	0.54	0.92
Spain	0.67	0.51
Thailand	0.37	0.41
United States	1	1
Yugoslavia	0.41	0.50