

Taking Responsibility: When and Why Terrorists Claim Attacks

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Abstract

Despite general academic consensus on terrorism being a strategic and communicative act, most extant work has only analyzed these features in relation to the actual attack itself. However, much of the communicative and strategic weight may come from a public claim of responsibility for the attack (or lack thereof). A terrorist attack is fundamentally an intimidating costly signal that foments uncertainty; claims of credit can naturally be viewed as a manner in which to augment the costliness and uncertainty of this base signal. Using this insight, I develop a series of hypotheses to test several well-established and mostly qualitative theoretical arguments in the literature. Focus is placed on Kydd and Walter's (2006) important work on extremists' strategies. Using econometric analysis on the Global Terrorism Database and case studies of three extremist organizations in Pakistan, I find that credit-claiming is indeed consistent with these strategies: While a dominant strategy of intimidation keeps claim rates low, extremists are more likely to claim responsibility for attacks that involve high costs (suicide and casualties), institutionally constrained states (democracy), and competitive environments. Attempts to sabotage political moderation serve to suppress claims. Moreover, groups with limited and specific aims, such as separatist organizations, are likely to have a higher claim rate than organizations with more sweeping and amorphous objectives. These findings not only tap into a largely overlooked dimension of violent political communication, but function as a useful test of extant theories in the terrorism literature that have thus far been evaluated using very small- N analysis.

1 Introduction

On May 10, 2012, two bombs detonated in the midst of a morning rush hour in Damascus. While the dual attacks were ostensibly targeting a nearby military intelligence complex, over 55 innocent civilians lost their lives in the explosions, making it one of the deadliest attacks in recent history

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(BBC 2012a). For two days, enraged leaders who oppose President Bashar al-Assad accused the endangered, unpopular, and repressive autocrat of staging the attacks against protesters.

It was two days later that a group called al-Nusra Front posted a video online, claiming responsibility for the attack. Suspected to be a jihadist organization with ties to al-Qaeda, the al-Nusra Front used this video to explain their motives behind the bombing: to respond to al-Assad's violent tactics against civilian protesters. "We fulfilled our promise to respond with strikes and explosions," the film proclaims. In doing so, this enigmatic terrorist organization audaciously asserted its opposition to Bashar al-Assad and found its name, unknown before, swirling through the global media.

Theories on terrorist organizations anecdotally note that extremists seek to claim responsibility for attacks in order to bolster their popularity and to gain support at the expense of rival extremist groups. The calamitous attack on September 11, 2001 and subsequent coverage of bombings in Iraq and Afghanistan have propagated the notion that terrorists want the power to gain attention and intimidate a captive audience. The anecdote above further feeds this seemingly plausible story.

However, the data suggest that this desire for publicity is not universally relevant or appealing. Of 30,000 terrorist attacks with relevant information in the Global Terrorism Database, only about 4,000 incidents are openly claimed. As Figure 1 shows, the proportion of attacks claimed never exceeds 20% in any given year. Despite the appeal of attracting popular support, countervailing forces such as the fear of prosecution, destruction, or popular backlash may cause organizations to remain quiet. If terrorists are the rational actors that academics believe them to be, some degree of thought ought to take place around each attack.

What factors enter into terrorists' willingness to claim responsibility for an attack? Past systematic attempts, few in number, have attributed this trend to intergroup competition (Hoffman 2010), magnitude of attacks (Wright 2011), motive of attack (Sánchez-Cuenca 2007), and target of attack (Rorie 2008). However, their findings face issues of external validity or fail to account for potentially important factors such as the state itself, form of attack, outcome of the attack, and overarching goals of the perpetrator.

One may question why we should study the determinants of credit-claiming rather than those of terrorist attacks in general. First, a plethora of work has already attempted to explain motiva-

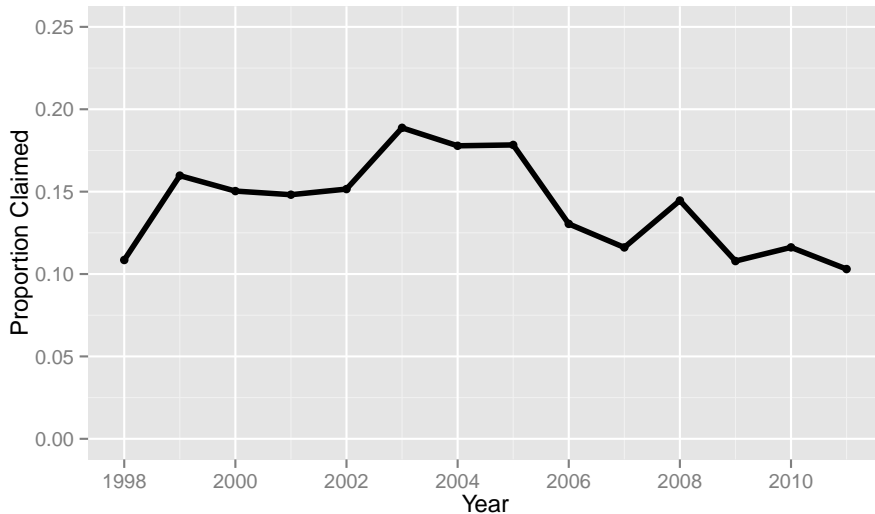


Figure 1: Proportion of all attacks claimed from 1998-2011. Based on the Global Terrorism Database.

tions behind terrorism at the micro and macro levels.¹ This line of research continues in earnest. However, it is unlikely that terrorism will ever be eradicated, so a deeper understanding of terrorist strategy will remain useful. Second, the decision to stage an attack is only one part of a larger process. Whether or not to claim an attack is a crucial final step to any terrorist act; bound into that decision is a calculation that reflects the perpetrators’ ultimate motives and rationale. Two bombings, superficially identical in every way except that one is claimed and the other is not, may actually reflect crucial underlying differences. If we truly seek to understand how terrorists think, we cannot afford to overlook the information revealed by their choice to claim responsibility. Third, claimed attacks make a group look disproportionately powerful, while the silence that follows unclaimed attacks can cause severe unrest. Credit-claiming is therefore a manifestation of asymmetric warfare—it is a weapon of the weak, and such weapons should be studied with the goal of mitigating their effects.

Considering the pervasiveness of terrorism, its undeniable ability to draw publicity, and the constant need to understand the strategic motives behind extremist violence, even preliminary answers would hold great academic and policymaking value. Indeed, one of the most immediate and natural responses we have to such attacks is to ask who was responsible and why they did it.²

¹For an interdisciplinary mixture, see Krueger and Malečková (2003); Hoffman (2006); Victoroff (2005); Crenshaw (2011).

²The bombing at the Boston marathon, while perhaps not technically a terrorist attack, is a prominent example where the media highlighted the lack of claim, and the desire to capture—not kill—the perpetrators revealed our

Given how obvious this question is, the dearth of systematic consideration about an answer or its import is puzzling. This paper hopes to offer some initial answers, while also demonstrating a pilot contribution to the quantitative study of well-established qualitative and small- N arguments in the terrorism literature.

The paper proceeds as follows. First, we review the communicative nature of terrorism. Second, we discuss how claims of credit are an additional aspect of extremists' communication and overall aims. Third, we integrate these ideas into existing theories of terrorism—namely the strategies of terrorism as outlined by Kydd and Walter (2006). This process yields several testable implications about terrorist behavior and credit-claiming. Fourth, we discuss the data used to conduct a large- N quantitative study of terrorism from 1998 to 2011. Fifth, we review the results of the econometric analysis. Sixth, we briefly turn to a qualitative review of three terrorist organizations in Pakistan to evaluate hypotheses on groups' political motivations. We then conclude.

2 The Attack

At its core, terrorism is a method of violent communication utilized when other options to seek redress may seem unviable (Crenshaw 1998).³ Such attacks are equalizing measures that, through their violent and seemingly unpredictable nature, compensate for a group's material disadvantage in relation to the state (Arreguín-Toft 2001). As McCormick (2003) succinctly notes, "Terrorist groups enjoy an information advantage; the state enjoys a force advantage" (484). The state's disproportionate military and police power are counteracted by terrorists' ability to blend into the background and constantly surprise their targets.

Terrorism is often differentiated between two forms of attack, depending on the ultimate motivation. Expressionist terror is defined as a release of personal anger and frustration as an end in and of itself, while instrumentalist terror is the use of violence as a means to promote some short- or long-term external goal (Enders and Sandler 1995). While older terrorism literature often framed extremist violence as being expressionist, recent literature has focused more on the latter approach.

desire to understand their rationale.

³We sidestep a deeper discussion of the myriad definitions of terrorism in the literature. For more detailed discussions of the various criteria used across policy and academia, see Gibbs (1989), Ruby (2002), and Zeidan (2004). The Global Terrorism Database, which is the primary source of data for the large- N analysis to come, contains its own definition, which will be provided and used later in this paper.

This underscores a desire to understand terrorism within a rational choice framework rather than as mindless acts of violence by unstable and rogue individuals.⁴

However, to call a terrorist attack “instrumental” masks its value or focuses too much on political machinations. Terrorist attacks may also be effectively understood as communicative acts—rhetorical and communicative gestures that “symbolize the views of the terrorists and seek to elicit interpretive responses in supporters (and attract supporters) as well as the targets of the terrorism” (Heath and O’Hair 2008). A terrorist incident simultaneously feeds on the subsequent environment of *uncertainty*, where the targeted government seems incapable of protecting its people and the next attack seems both inevitable and unknown. The role of fear in terrorism has long been assumed and subsequently understood as a crucial ingredient in terrorism’s lasting effect on the target population (Sinclair and Antonius 2012). A central claim of this paper is that the choice to claim responsibility for an attack is an instrumental decision constitutes a crucial aspect of this communicative act.

3 The Claim

For the purposes of this study, a claim is a public action in which somebody (or something) representing an organization states that the organization is responsible for the attack. Note that this is conceptually separate from either advance warnings about attacks or government/media-led attributions. Claims come after the attack and are announced by the alleged perpetrators themselves. Thus, as Hoffman (2010) notes, “claims of responsibility reflect the plans terrorists rely on in ways warnings cannot. [...] It is the control perpetrators exercise over claims that makes them useful for drawing inferences about the strategies groups rely on” (616). As will be made clear in this section, claims are more than a vestigial action; they constitute an important ingredient in the calculus of an attack and its intended effect on the public.

3.1 Extant Works

Sparse recent scholarship has made some headway in investigating credit-claiming. As a criminologist, Rorie (2008) explains the phenomenon by focusing on target type and method of attack. However, her analysis is limited to the United States and is highly apolitical, ignoring the potential

⁴For more literature on the “ordinariness” of the typical terrorist, see Victoroff (2005) and Post (2007).

effects fear of government retaliation, destructiveness of an attack, or inter-group competition.

In what is arguably the most developed work on this topic, Aaron Hoffman (2010) demonstrates that a competitive environment is strongly correlated with proportion of claimed attacks in Israel and Palestine. However, scholars such as Moghadam (2006) have questioned the external validity of empirical studies done solely in Israel and Palestine, further challenging seminal studies by Bloom (2004, 2005) and Kydd and Walter (2002), both of which focus almost exclusively on those two polities. Specifically, of 356 attacks in Hoffman’s dataset, 56% of the attacks (or 200) are claimed. Given that the general average is closer to 15%, a figure exceeding 50% is clearly anomalous. (See Table 6 for a more complete breakdown of countries by proportion of claims.) It is also worth noting that, on the global level, variance in claim-making behavior exists even when only one predominant group exists. Relying solely on competition fails to explain variation of the dependent variable in “monopolistic” environments.

Wright (2011) finds that competition does not explain patterns of credit-claiming, instead pointing to levels of destruction and target type: Claims are more readily made after deadly attacks, and even more so when the target is a democracy. The study, nevertheless, is arguably too simplistic. It does not parse the attacks by method except for differentiating between suicide and non-suicide, and lumps together all observations with no consideration of varying trends across regions or for overarching organizational objectives. The empirics only rely on approximately 6,000 observations out of a possible 30,000 with little explanation of selection criteria. These observations on extant work suggest that more can be done methodologically to address this question. And perhaps most importantly, the scholarship thus far lacks a cohesive theoretical framework to understand patterns of credit-claiming or to fully appreciate their importance as a measure of terrorist rationale. We proceed to make an attempt below.

3.2 Costliness

Ideas of costly signaling figure deeply into a more cohesive understanding of terrorism (Kydd and Walter 2006; Siegel and Young 2009; Arce and Sandler 2007). Violent extremist acts are inherently a costly signal—gestures that credibly show the true capabilities and resolve of the perpetrator organization. Critical to the costliness of a signal are the visible use of resources and the willingness of the agent to incur sufficiently dangerous risks. These aspects are necessary for the government

and populace, as principals, to view the terrorists as parties worth attention and concessions.

It can be further argued that credit-claiming is a manner in which to potentially *enhance* the costliness of a signal. This is not to deny that claim-making has benefits as well, which could include but are certainly not limited to: having a platform to specifically address one's grievances; portraying oneself as being a menacing organization, capable and brave enough to publicly stick out; and attracting support and resources from potential sympathizers. Conversely, claim-making typically entails risks. However, the latent costs of claim-making are quite substantial: endangering the organization by allowing the government to more easily distinguish between extremist groups; alienating substantial portions of the population; and losing a sense of anonymity or uncertainty that could both enhance their ability to intimidate (a point developed further below) and operate as freely. Three brief examples suggest that the consideration of costs and benefits is not taken lightly:

- In January 2006, a bomb blast in front of the Court of Appeals in Manila, Philippines was followed by a claim of responsibility by a group named Kawal ng Pilipinas (Soldier of the Philippines). The group used the opportunity to list its demands, which included the resignation of then-president Arroyo and the dissolution of the Commission on Elections.⁵
- The Shabab, the most notorious extremist organization in Somalia, took responsibility for a coordinated bombing that killed over 70 individuals in Uganda. In doing so, they made their political message clear: “We are sending a message to every country who is willing to send troops to Somalia that they will face attacks on their territory. Burundi will face similar attacks soon, if they don’t withdraw” (Kron and Ibrahim 2010).
- Sánchez-Cuenca (2007) recounts an incident in 1985, when the Basque separatist organization Euskadi Ta Askatasuna (ETA) in Spain killed a taxi driver. Once it was revealed that the driver was the cousin of the bishop of the city of Bilbao, the ETA realized that its actions would upset the church. The ETA quickly denied responsibility for the murder.

Each anecdote illustrates the import that terrorist organizations place on the ability and willingness to public claim attribution for their attacks. Extremists are aware that attacks can serve

⁵See GTD Event ID 200601300009.

as a vehicle for promulgating their interests, or as potential liabilities to their images. Al-Qaeda leaders often decry Western media and “apostate” Muslims for conspiratorially slandering their movement and refusing to give al-Qaeda due credit, both in spiritual and material support, for its actions (Stout et al. 2008).⁶ Extremists’ awareness of how the propaganda of the deed is modulated by public proclamations is quite obvious.

The specific cost-benefit calculus will differ according to the overall terrorist environment in which extremists operate, or based on the individual group’s particular attributes. For example, a new organization makes a much larger gamble from an initial claim than an established group with a history of claims. A terrorist group vying for the spotlight in the midst of many rival groups might be more willing to incur the costs of claim-making for the material support they hope to receive in return. Extremists with a more concrete agenda may feel that the opportunity to voice one’s desired policies are worth the existential and reputational risks of being associated with violence. The relative weights placed on costs versus benefits to credit-claiming constitute the theoretical undercurrent of the hypotheses in this paper.

The notion of credit-claiming as a form of costlier signalling provides a highly useful way to empirically test well-established theory in the terrorism literature. Its incorporation into extant qualitative and small- N works provides a far more holistic understanding of the rational logic of extremist violence.

3.3 Strategies, Audiences, and Uncertainty

The communicative perspective to terrorism previously described is quite important, highlighting two crucial considerations that extremists must consider with each attack. First, every act is directed toward a target audience, whether that is the government, potential sympathizers, or hardcore supporters of the group itself (a taxonomy used to great effect by Bueno de Mesquita and Dickson (2007)). Second, every terrorist attack is laced with the intent to sow *uncertainty*.

⁶For concrete examples, refer to page 177 of their volume:

More than a decade ago, Abe Hafs al-Masri (also known as Mohammed Atef) believed that the December 1994 Airbus hijacking perpetrated by Algerian jihadists was undercut by the fact that the French “were in total control.... They become the sole conduit of information for the world.” As a result, the hijackers were unable to get their message through the world press, and thus the movement could not benefit from the martyrs’ action. [...] Leading jihadists see a hidden hand behind the allegedly inaccurate media coverage of AQAM’s [Al-Qaeda and Associated Movements] operations. (p. 177)

Renowned German philosopher Jürgen Habermas goes as far as to state that “the uncertainty of the danger belongs to the essence of terrorism” (Borradori 2003). However, the nature of that uncertainty can vary. There may be questions about who perpetrated the attack, whether the government is capable of stemming another attack, when/where the next attack will be, whether it is generally safe enough to go live life normally, and the like. The group’s actions, especially in making a claim (or not) play a distinctive role in fueling this uncertainty and who the primary target of this uncertainty is meant to be. As such, the ways in which terrorists manipulate uncertainty is a function of the aforementioned cost-benefit calculus.

Such a perspective can be easily and usefully incorporated to five broad strategies of terrorism as noted by Kydd and Walter (2006).⁷ Indeed, Kydd and Walter’s classification of terrorist strategies serves as a useful and consistent structure to hypothesize and understand patterns of credit-claiming. Table 1 summarizes these strategies. The remaining three columns in the table provide the main target audience and presage the role of uncertainty motivating each of these strategies. Note that these strategies are not necessarily mutually exclusive, nor do organizations only use one single strategy. Interactions between strategies is practically inevitable. Even so, treating them discretely helps yield sets of observable and testable implications.

The hypotheses that follow provide a quantitative test of Kydd and Walter’s qualitative explanations of the strategies of terror. The idea that a claim is a costlier signal than the original terrorist incident offers leverage to test these assertions of strategy using a large-scale empirical analysis.

3.3.1 Intimidation

Intimidation, defined as being “akin to the strategy of deterrence, preventing some undesired behavior by means of threats and costly signals” (Kydd and Walter 2006; 66) is arguably an underlying objective of *all* forms of terrorism. All extremists seek to shape behavior of their adversary—typically a government and the people that support it—and relay costly signals in the form of communicative violence. Such actions inculcate a fear of injury or harm; if they do not, the terrorist act has ultimately failed.

To a large extent, fear is enhanced by the presence of the unknown. This would suggest that

⁷While perhaps the most prominent and well-developed today, theirs is not the only classification scheme; for two others, see Thornton (1963), Harmon (2001) and Merari (1993).

terrorism is often more intimidating when no entity claims responsibility. When a name cannot be attached to a violent act, the government looks incompetent and unable to effectively protect the people from future attacks. Nobody is aware of when, where, why, or how the next assault will take place. Besides the lack of control fueling additional psychological unease, this also gives the terrorists anonymity which protects them from government retaliation or public backlash (Hoffman 1997). This may provide an informal explanation of why rates of credit-claiming are so low; if intimidation is a common thread across all terrorism, and intimidation is exacerbated by remaining silent in the aftermath of an attack (during which time people frantically seek to rationalize the incident by identifying a purpose and/or perpetrator), then many attacks should be unclaimed.

But circumstances do exist in which terrorists are willing to forego this invisibility. Instead, highly “successful” attacks that are inherently frightening may be deemed so useful to the organization’s image that the group believes it can capitalize on its personal ability to intimidate the public by making a formal claim. The diffuse intimidation from anonymity, which indirectly helps most extremists, is replaced with intimidation from a specific group relaying a sufficiently costly signal because of the attack’s positive effects on the group’s public reputation. While any attack can unsettle the public, claiming responsibility for relatively ineffectual assaults may satisfy die-hard zealots in the organization but attenuate the group’s overall public image, safety, and access to resources. Indeed, terrorists are aware that certain attacks may estrange citizens at large (Piazza 2008; Chenowith et al. 2009; Sánchez-Cuenca 2007), and a couple anecdotes above attest to this, as well. A primary concern of terrorists “is that uncoordinated and ill-considered actions are at best unhelpful and at worst counterproductive” (Stout et al. 2008).

At least two factors may play into terrorists’ calculations to intimidate via lack of anonymity (and hopefully augment their public reputation). The first is suicide terrorism. Suicide attacks are viewed as uniquely poignant acts. At the spiritual level, acts of martyrdom, at least in Islamic contexts, are viewed as highly honorable (Bloom 2004; Atran 2006). At a more operational level, suicide attacks can cause outsiders to believe that the group is highly capable in its ability to recruit individuals willing to die for their cause. The incredibly high cost in terms of human capital limits extremists’ ability to stage suicide attacks, which explains their relative infrequency (Berman and Laitin 2005; Clarke and Newman 2006). The seemingly “irrational” nature of suicide terrorism to the general audience also contributes to their value in intimidation—intimidation high enough that

the responsible organization seeks to forego anonymity.

Hypothesis 1: Claims are more likely on attacks that involve suicide tactics.

Of course, a suicide attacker (if there is one) is not the only person in harm's way. Attacks often take place in public settings in order to maximize the sense of intimidation, and bystanders may be killed in the process. However, the media's bias in reporting terrorist attacks has obfuscated the fact that most assaults involve little to no casualties. According to the Global Terrorism Database, more than 75% of attacks that took place since 1998 have involved 2 or fewer dead. Attacks with mass casualties are quite rare; such incidents are therefore highly intimidating, attention-grabbing, and susceptible to claim-making.

Hypothesis 2: Claims are more likely on attacks that inflict higher numbers of casualties.

3.3.2 Attrition

When engaging in attrition, extremists attempt to demonstrate their capabilities and resolve in dealing with a concession of interest. Terrorists engage in publicly costly behavior in order to show the government and civilians that oppose their cause that they are "in it for the long haul." In doing so, the government will hopefully find concessions to be more worthwhile than enduring costs from a resilient adversary.⁸

Wearing down the state and population at large takes a great deal of effort and patience. This strategy makes the most sense when fundamental interests are at hand. Given the importance of costly signalling in effective attrition, we should expect groups engaging in this strategy to claim more of their attacks.

Which groups would we expect to engage more in attrition? Groups with more limited goals have incentives to evince strength and resolve in order to achieve their objectives. Nationalist and separatist groups best fit this category. Such an organization has clear and limited goals, primarily

⁸Intimidation and attrition are admittedly difficult to differentiate in practice, to the extent that other scholars such as Frieden et al. (2013) collapse these two categories into one. Nevertheless, these strategies are kept discrete in this paper for two reasons. First, all acts of attrition may include an element of intimidation, but not all acts of intimidation involve attrition. Second, since this section adopts Kydd and Walter's taxonomy, it may as well be faithful to their full list of categories and theoretical implications.

revolving around some form of sovereignty and/or legal recognition from a host state. For these ends, the group seeks a dialogue and a negotiated deal. They are more concerned with wearing down the resolve of the government. Their attacks are then also opportunities to gain attention and to express grievances in a more detailed manner in hopes of obtaining sympathy and concessions. Seeking redress in such a specific manner necessitates a claim; the audience must be certain of the aggrieved party's identity in order to know what policy changes are desired.⁹ Not only must the signal be costlier, but it should also be more *informative*. Furthermore, conditional on success, separation means that the host country remains and would be a neighbor to the new state; the shadow of the future is long, so attacks should be largely limited. The relatively tame nature of the attacks also facilitates credit-claiming, since such attacks are largely designed to gain attention without betraying the moderate population whose support they seek to gain.

Conversely, consider a group with strikingly broad, sweeping, and amorphous goals, such as the wholesale toppling of an incumbent regime. In these cases, the extremist group does not seek recognition or negotiations from the government that it seeks to destroy and replace. Indeed, attrition does not mesh well with existentialist ends; no terrorist group would rationally expect a government to be worn down enough to simply dissolve itself. The need to cater to the population at large is also less salient, as the group's extremist core is more concerned with forceful accession to power than popular support. Therefore, these groups' attacks may tend to be more egregious and provocative, with the intent of subverting the government and highlighting its incompetence. Both the severity of their attacks and their reduced need to address specific issues may lead them to claim fewer of their attacks.

These insights yield the following two hypotheses:

Hypothesis 3: Extremist organizations with nationalist/separatist objectives are more likely to claim attacks.

⁹Admittedly, some audiences may know who is responsible for an attack without an explicit claim. However, not claiming such attacks attenuates a separatist group's ability to convey its detailed requests to the broadest audience possible.

Hypothesis 4: Extremist organizations with jihadist/revolutionary objectives are less likely to claim attacks.

As Kydd and Walter also note, attrition is also more favorable when the state is constrained from wanton retaliation, since the terrorists' costly signals face a lower risk of danger. Democracies are tethered by institutional arrangements and need for popular approval, which often limits their capability to respond to attacks (Pape 2005; Wade and Reiter 2007). Democracies are also far more sensitive to the costs of terrorist attacks, as incidents in Western Europe and the United States clearly demonstrate.¹⁰ Therefore, we yield the following hypothesis:

Hypothesis 5: Claims on attacks are more likely in democracies.

3.3.3 Spoiling

Many extremists are loathe to peaceful transitions and the settlement of political conflicts, as such events placate much of the public and undermine the extremists' cause. As Kydd and Walter (2002) observe, peace agreements and elections in the Israel/Palestine conflict were sabotaged by a slew of terrorist attacks that were meant to sow mutual suspicion between opposing moderates. Bueno de Mesquita (2005) formalizes this argument, while Braithwaite et al. (2010) econometrically test this logic in Israel and Palestine. Uncertainty plays a prominent role here, which makes predictions on credit-claiming simple and quite natural: Without knowledge of who perpetrated an attack, political moderates are even more fearful that the other side is not trustworthy and will ultimately renege on any peaceful process. Not only is each side incapable of self-policing its fringe extremists (which is the source of uncertainty for Kydd and Walter), but neither side can credibly associate or disassociate themselves from attacks by unidentified actors.

Hypothesis 6: Claims on attacks are less likely prior to important political events (such as peace summits or elections).

¹⁰Furthermore, democracies feature free and open presses that effectively propagate information and fear. Presaging the strategy of intimidation, democracies may also tend to have more claims because such actions are readily reported and fear/uncertainty amplified.

3.3.4 Outbidding

Extremists seek the material and “spiritual” support of the population. These resources are limited if not outright scarce. When only one terrorist organization exists, the monopolistic environment simplifies things dramatically; citizens can choose to either support the extremists or not. However, once multiple groups exist, the public is less confident about each group’s goals and capabilities; organizations must make efforts to stand out in order to maximize their access to the citizenry’s support. In her seminal work on outbidding, Bloom (2004, 2005) provides examples of Palestinian organizations such as Hamas, the Popular Front for the Liberation of Palestine, the Al-Aqsa Martyrs’ Brigade, and others scrambling to take responsibility for attacks. As one notable example, at least four distinct organizations scrambled to take credit for a suicide bus bombing in an attempt to mobilize citizens to support their specific cause. The use of suicide tactics augments the incentives to claim credit, since martyrdom carries great honor and indicates a high degree of capability and human capital (as noted in the “Intimidation” section). While some extremist groups have also sought to curry favor by providing useful social services (Hamas’s hospital care comes to mind), being associated with attacks is another salient manner to attract approval, particularly from the less moderate subset of the population that endorses violent tactics. It is not simply enough to stage an attack. To fully capitalize on an incident and stand out from the crowd, terrorists should be more inclined to overtly accept responsibility.

Hypothesis 7: Claims on attacks are more likely in competitive terrorist environments (where more than one organization exists).

The logic of competition can be extended slightly further. In the immediate aftermath of a claimed attack, motivation to stand out grows. This could happen in two different ways. First, other groups fear being pushed out of the spotlight and quickly becoming irrelevant if they do not act. Second, the same group becomes emboldened and sees little added marginal danger to claiming further attacks. This inter-temporal dynamic motivates another hypothesis:

Hypothesis 8: Claims on attacks are more likely in the wake of a previously claimed attack.¹¹

3.3.5 Provocation

In a strategy of provocation, terrorists attempt to goad the government into engaging in indiscriminate or increasingly unpopular forms of repression with the hope that such overreaction will alienate the public and support the extremists' cause against the state. Bueno de Mesquita and Dickson (2007) formalize this logic of provocation to great effect. By making it difficult for the state to retaliate in a targeted manner, terrorists force the government into taking no action or extreme action. Certain factors such as the integration of extremists into society obviously play a part in this. Moreover, overt repression is more likely when the perpetrator of an attack is unknown and when the government has a penchant for taking measures that violate civil liberties. However, provocation works best in the face of intermediate levels of violence (Kydd and Walter 2006); extremely violent regimes could obliterate the extremists and citizens, while pacific regimes do little to alienate the public.

This second condition is reminiscent of the democracy hypothesis stated above, albeit with an amendment.¹²

Hypothesis 9: Claims on attacks are least likely at intermediate levels of democracy and more likely at low and high levels of democracy. (Likelihood of credit-claiming should follow a U-shaped pattern with respect to levels of democracy.)

Having now reviewed the interplay between claim-making and overarching strategies of terrorism, we begin evaluating these hypotheses below. This effort will primarily involve quantitative analysis at the attack level. However, the attrition hypotheses involving group's objectives (3 and 4) will involve suggestive qualitative evidence at the group level. We begin with the quantitative half.

¹²Furthermore, Bueno de Mesquita (2007) suggests that democracies are forced to engage in less discriminate forms of counterterror in order to publicly demonstrate progress. These perverse incentives provide another reason why democracies may be more appealing targets for provocation.

Strategy	Description	Primary Audience	Uncertainty	Claims
Intimidation	Demonstration of power to punish and government’s inability to stop the violence.	Public	High	Low
Attrition	Infliction of costs over time with hope of showing resoluteness and having demands met.	Government	Low	High
Spoiling	Undermining of peace processes by creating distrust between moderates who are spearheading negotiations.	Government	High	Low
Outbidding	Competition between extremist groups for limited attention and resources.	Public	Low	High
Provocation	Attempt to prod the government into a disproportionate response that alienates the population and increases extremists’ appeal.	Public	High	Low

Table 1: Kydd and Walter’s (2006) typology of terrorist strategies, accompanied with predictions of primary audience and importance of uncertainty and claim-making. Note that Kydd and Walter refer to the “Enemy” rather than “Government” and “Own Population” instead of “Public.”

4 Data and Analysis

4.1 Data

The most complete and widely-used database in the terrorism literature is the University of Maryland’s Global Terrorism Database II (GTD II, or GTD). The latest update from 2012 contains over 104,000 incidents from 1970 to 2011. To be an observation in the GTD, an attack must satisfy two sets of criteria. First, (1) the incident must be intentional, (2) the incident must entail some level of violence or threat of violence, and (3) the perpetrators of the incidents must be sub-national actors (GTD Codebook 2012). Beyond these, two of the following must obtain to be considered an act of terrorism: (1) The act must be aimed at attaining a political, economic, religious, or social goal; (2) there must be evidence of an intention to coerce, intimidate, or convey a message to a larger audience than the immediate victims; and (3) the action must be outside the context of legitimate warfare activities.

The GTD only consistently records credit-claiming as a binary variable starting in 1998. This narrows the dataset to about 32,000. Furthermore, we only deal with the subset of data in which attacks are successful, given the potential for selection bias. Approximately 93% of attacks in the GTD are successes, and most failed terrorist attacks will not progress enough to be observed

and included in the data.¹³ Approximately 4,000 observations were logged in the GTD as being uncertain cases where the aforementioned criteria were not fully satisfied. This study errs on the side of conservatism and removes these borderline cases.¹⁴ The sample size for this study is then 26,576, spanning from 1998 to 2011—arguably the most relevant time period in the current study of terrorist logic.

4.2 Dependent Variable

The dependent variable of interest is whether an attack was claimed or not. The measure is dichotomous. The GTD categorizes these claims by mode of communication, which can range from letters and e-mails to videos and blog posts and personal claims. However, data on the mode of claims is quite meager, so we refrain from making any inferences based on this more detailed metric. Since the dependent variable is whether an attack was claimed or not, a logit model is appropriate for the study. Potential heterogeneity across time and regions is accounted for using fixed effects, and potential dependencies of observations within countries is captured using Huber-White robust standard errors clustered by country.

4.2.1 Considerations about Claims

Given the central role that claims have in this study, we should be clear about how the GTD classifies claims and any potential inferential threats that may exist as a result.

Unclaimed but Known In some cases, the perpetrator of an attack may be well-known even without a formal claim. For example, three houses were bombed in a Indian village in April 2008. No group officially took responsibility for the attack, but the very obvious presence of 200 armed members of the Communist Maoist Party (CPI-Maoist) may have made that claim unnecessary.¹⁵ An ambush of a bus in Uganda, resulting in the death of two, was attributed to the Lord’s Resistance Army even without a claim, as officials identified the hit-and-run tactics used as being trademarks

¹³An earlier iteration of this paper hypothesized that attacks are more likely to be claimed when “successful,” which the GTD determines in a literal sense (whether the bomb detonated, whether a bullet was fired, etc.). While the econometric analysis strongly supported this claim, concerns about selection bias in the data overshadowed these findings, which were ultimately unsurprising in any case.

¹⁴However, the inclusion/exclusion of these observations does not appear to substantively change the results.

¹⁵See GTD Event 200804290016.

	Unclaimed	Claimed	<i>Total</i>
No Attribution	14,961	89	15,050
Attribution	8,345	3,361	11,706
<i>Total</i>	23,306	3,450	26,756

Table 2: Distribution of all attacks by claims and attribution.

	No claim	Claim	<i>Total</i>
No competition	1,829	251	2,080
Competition	21,477	3,199	24,676
<i>Total</i>	23,306	3,450	26,576

Table 3: Breakdown of competition and claims.

of that organization.¹⁶

Using these contextual details, the GTD is able to record what organizations are attributed with an attack regardless of formal claim. Table 2 shows the bigger picture. Of about 27,000 total observations in the dataset, almost 15,000 have no specific organization associated with them. Meanwhile, of the 12,000 attacks with attributed groups, only 3,400 are officially claimed; we may be concerned that some of these unclaimed but attributed attacks are biasing the results that follow.

This is unlikely to be a serious issue. For one thing, we still find a considerable deal of variation in claim-making when no competitive environment exists. Those concerned might expect no or very few claims to be made when a single group monopolizes the scene, but this is not the case. Refer to Table 3, where the competition covariate is created by using data on the number of attributable terrorist organizations in a country-year. In our data, 2,080 observations occur in the absence of competition, when only one known organization exists. Approximately 12% of these non-competitive attacks are claimed; the decision to take responsibility for attacks still varies. Meanwhile, 13% of attacks—a very similar proportion—are claimed in a competitive environment. The proportion of claimed attacks is practically identical regardless of competition.¹⁷

Second, we see many instances in which terrorists seek to distance themselves from attacks. The ETA was quick and vigorous in its denial of responsibility for the 2004 Madrid train bombings that killed almost 200 people. The organization, operating in an ostensibly monopolistic environment, knew that they were the primary suspect and were aware of the Spanish population’s outrage. The

¹⁶See GTD Event 200304080003.

¹⁷Furthermore, using the now-defunct variable for competitive environment in the 2010 GTD, the percentage of claimed attacks is actually *lower* in competitive than in non-competitive environments.

ETA is also a prominent example of an extremist organization that has sole presence in its territory yet lays claim to about half of its attacks—neither staying completely quiet or being completely vocal.

Third, and closely connected to the aforementioned points, the fundamental point of this paper is that claim-making is a distinct act that carries strategic and communicative value, *regardless* of whether we are aware of the perpetrator’s identity. The fact that terrorist groups operating alone in a country choose to take responsibility for some attacks, remain silent for some, and openly disavow others reveals the importance of this gesture. Even if some degree of uncertainty is attenuated in these circumstances, it is certainly not eliminated. Many attributions are made using crude guesswork, and the reliability of such conjectures is often suspect. Perhaps most cynically, governments and police may simply accuse an organization of an attack without any evidence simply in order to ameliorate intimidation. Table 4 brings this point to light. Of 8,113 unclaimed attacks with attributed groups in the GTD, 5,630 are listed as having perpetrators identified based on suspect evidence and speculation. Even in cases with no claim but a definite attribution, it would be a strong assumption to believe that the guilty party sees no functional difference between two attacks—one which it claims and explicates, and one which it leaves specific motives open to conjecture.

	Unclaimed	Claimed	<i>Total</i>
No Attribution	6,059	65	6,124
Attribution	2,483	2,905	5,388
<i>Total</i>	8,542	2,970	11,512

Certain Attribution

	Unclaimed	Claimed	<i>Total</i>
No Attribution	0	0	0
Attribution	5,630	455	6,085
<i>Total</i>	5,630	455	6,085

Uncertain Attribution

Table 4: Distribution of attacks by claim, attribution, and certainty of attribution. Note that due to data missingness on certainty of attributions, the two tables only add up to $N = 17,507$ rather than 26,756.

Under-Reporting Bias Since much of the GTD’s claim data is based on news reports, one may be concerned about reporting bias. With ill-equipped or state-controlled media, perhaps autocratic regimes have the ability to stifle reports on claims of credit and would do so to neuter the effectiveness

of extremist organizations. Democratic states, on the other hand, tend to feature active and less restrained media bases that eagerly seek to report such sensational information. Even in those cases, groups such as al-Qaeda accuse Western media of suppressing full and faithful coverage. Four considerations suggest that this is not a major concern.

First, the intent of claim-making is to get public attention. A public claim that gets no coverage is ultimately twinged with some degree of failure. It is thus in the interests of claim-making extremists to ensure that public exposure takes place. They clearly do so. For instance, the Taliban claimed a stabbing and bomb blast that killed an Islamic cleric in April 2005 by directly contacting the Agence France-Presse.¹⁸ In another instance, the Free Syrian Army, a group of Syrian defectors, took responsibility for a bombing in November 2011 by posting on a website, circumventing local news outlets. Even in Syria, where international media are often barred from entry and communication with the outside world is severely restricted, terrorists can and do make themselves known.¹⁹ Second, the media is often proactive enough to seek information on responsibility. In the recent Boston bombing, several media outlets directly contacted the Pakistani Taliban to ask whether they had perpetrated the attack. Thirdly, if anything, fears of under-reporting bias would be a larger concern with regard to inclusion in the GTD itself. The fact that an attack is found in the GTD indicates that some media outlet was informed of or discovered the incident, which facilitates learning whether an attack was claimed or not—and they largely are not. (If an overwhelming majority of attacks in the GTD were claimed, we might be concerned that we are only learning about incidents that extremists are actively claiming, missing the relatively ineffectual attacks that comprise most terrorist activity.) Lastly, one potential work-around is to analyze only a subset of nations in which the terrorist environment is better understood, ostensibly allowing for full coverage of terrorist attacks. Such an analysis is included in Appendix A.

4.3 Explanatory and Control Variables

A majority of the variables are taken from the GTD and are summarized in Table 5. Though most are self-explanatory, a few are worth describing.

A variable for intergroup competition surrounding each attack existed in previous iterations

¹⁸See Event ID 200509020002 in the GTD.

¹⁹See Event ID 201111200029 in the GTD.

Variable	Description	Minimum	Maximum	Source
Claimed	Dummy for whether an attack was claimed	0 (No)	1 (Yes)	GTD
Suicide	Dummy for suicide attack	0 (No)	1 (Yes)	GTD
Killed	Number killed in attack	0	1,381	GTD
Wounded	Number wounded in attack	0	4,000	GTD
Religious, Military, Business, Police, Private, Government, Utility, Diplomatic, Transport, Education	Series of dummies for target type	0 (No)	1 (Yes)	GTD
Bomb, Assassination	Series of dummies for whether attack involved a bomb or assassination	0 (No)	1 (Yes)	GTD
Democracy	Dummy for whether state is a democracy, based on Polity IV score	0 (< 7)	1 (≥ 7)	Polity IV
Polity	Polity IV scores	-10	10	Polity IV
Log GDPPC	Logged and lagged GDP per capita	4.960	11.340	Penn World Tables
Competition	Indicator for competitive environment	0 (No)	1 (Yes)	GTD (created)
In 3, In 7, In 14	Dummy for whether the attack took place within 3, 7, or 14 days after another claimed attack	0	1	GTD (created)
Election 3, Election 7, Election 14, Election 30	Dummy for whether the attack took place within 3, 7, 14, or 30 days before a presidential or legislative election	0	1	GTD and NELDA (created)

Table 5: Variables in final dataset of 27,576 observations.

of the GTD,²⁰ but was removed from the 2012 update due to inconsistency of the recorded data. As a rough proxy for competition, we see whether two or more distinct terrorist organizations are attributed with attacks in any given country-year. A dichotomous variable is created using this calculation.²¹

Bombings and assassinations are two particularly visceral and visual forms of terror. The direction of each one’s effect is not immediately evident; both tend to be highly conspicuous but also draw great scrutiny. Due to their conspicuous nature and costliness, we can at least believe that they affect groups’ willingness to claim responsibility. Dummies indicating these characteristics are included.

We take two approaches to account for democracy, each with its own merits. One is the 21-point

²⁰Multi-party conflict is defined by the 2010 GTD update as a situation in which “it is difficult to attribute responsibility or to unequivocally discern various non-state actors” (for the Study of Terrorism and to Terrorism 2011).

²¹Competition may obviously exist even when multiple groups are not publicly associated with attacks in a given year. However, if claim-making is about public reputation, then measuring competitive environment using public attributions—that is, the public’s knowledge of what organizations are present and active—is justifiable.

Polity IV scale by Marshall et al. (2012). This method may better capture the effect of varying levels of institutional constraint on credit-claiming and allows us to test for a U-shaped relationship. However, about 6,300 observations are lost due to having no specific Polity score. These missing observations all emanate from post-invasion Iraq and Afghanistan. Hence, our second approach is to use a binary indicator of democracy, with scores of 7 or above qualifying as democracy and scores 6 and below being non-democracies.²² We can safely record Iraq and Afghanistan as being non-democratic during these years, as indicated by regime datasets such as Cheibub et al. (2010) and Magaloni et al. (2013). Both lead to similar findings. Thus, for the sake of retaining as many observations as possible, regressions not explicitly testing the effects of democratic restraints utilize the dummy variable.

Lastly, we would like to account for Hypotheses 6, 7, and 8, which attest to spoiling and competition. The National Elections Across Democracy and Autocracy dataset (Hyde and Marinov 2012) is used in order to evaluate the “spoiling” hypothesis that terrorists attempt to sow uncertainty prior to significant political events. Dummy variables are made to indicate whether an attack occurred within 3, 7, and 30 days of a presidential or legislative election. To see whether claimed attacks affect claim-making in the immediate future (perhaps so that another group attempts to remain relevant), variables were made to indicate whether a claimed attack had occurred within 3, 7, and 14 days of the attack in question.

As controls, we include fixed effects for regions and years. Patterns of credit-claiming may vary systematically across both dimensions. State capacity may also be a salient factor. Extremists may be more concerned about being captured or killed when attacks are on states with substantial resources, stifling claims, while relatively unconcerned about their safety in poorly endowed countries, boosting claims. Conversely, a successful assault on a capable country may serve to enhance a sense of intimidation to the extent that terrorists seek to make claims and boost their reputation for toughness. These two dynamics may also exist simultaneously, suggesting a quadratic relationship between state capacity and likelihood of claims. State capacity is proxied using logged GDP per capita (Fearon and Laitin 2003) from the Penn World Tables.

As others have asserted (Rorie 2008; Wright 2011), claim-making could also be affected by the type of location that is attacked. If reputation plays even some remote role in terrorists’ behavior,

²²Analysis done using 6 as a threshold for democracy yielded similar results.

extremists should be less enthusiastic about claiming attacks that risk public backlash. Meanwhile, it may be more tempting to take responsibility for attacks that affect hard targets such as governmental institutions and military outposts (Berman and Laitin 2005). The qualitative view of Pakistani terrorist groups indicates that organizations are selective about the targets they choose and whether those attacks are claimed. We therefore find motivation to include fixed effects for target types into the regressions. The GTD uses 22 target categories, though some are very sparse. Dummies are included for the top eleven most common target types, which compromise more than 92% of the data: business, educational institutions, diplomatic, government, military, police, private citizens and property, transportation, media, and utilities.

4.4 Descriptive Statistics

Table 6 provides a summary of some key features of the GTD dataset. The twenty-five countries with the largest number of attacks are listed in descending order. Coincidentally, the top twenty-five are also the subset of nations with at least 100 incidents. Together, these twenty-five constitute about 94% of the 26,756 observations in the dataset. (In fact, the top three represent 46%, and the top five are 60%, and the top ten are 77%.)

The fourth column, “% Claimed,” measures what proportion of attacks in the country were claimed over this time period. The last column, “Claim Rank,” is a listing of the countries by overall claim rates. There is clearly no strong relationship between the quantity of attacks and the rate of claims; a simple correlation yields a weakly negative value of $-.24$. Notably, Israel has the highest proportion of claims, underscoring that the terrorist environment there may be somewhat unique. Also interesting are Afghanistan and Pakistan; while both feature high numbers of attacks due to invasions by the United States, their claim rates are quite different.

The fifth column, “% Attributed,” provides a suggestive look into each country’s terror environment. While few attacks are claimed, the GTD also records what groups are attributed with attacks. In some cases, the police are able to determine culpability even if no claim is made. In others, the attack bears hallmarks of a certain organization. Or, it may be that only one extremist organization is known to exist in the country, so most attacks are attributed to that group (a likely case for Colombia with FARC and Sri Lanka with the Tamil Tigers). Using this data, we are able to calculate what proportion of attacks can be attributed via educated guesses. This column, while

admittedly subject to measurement error, is suggestive of how well-understood the terrorist environment is in each of these countries. The gap is quite large for most countries, with exceptions like Greece and Israel, where the proportion with claims and attributions are quite similar, suggesting that claim-making is rather fierce.

Country	Total Attacks	% of GTD	% Claimed	% Attributed	Claim Rank
Iraq	6,126	0.228	0.043	0.090	23
Pakistan	3,210	0.119	0.100	0.275	13
India	3,102	0.115	0.165	0.725	9
Afghanistan	2,340	0.087	0.249	0.608	6
Thailand	1,351	0.050	0.007	0.144	25
Colombia	1,084	0.040	0.071	0.848	17
Philippines	1,077	0.040	0.097	0.635	14
Russia	978	0.036	0.071	0.244	18
Algeria	931	0.035	0.053	0.671	21
Sri Lanka	628	0.023	0.045	0.826	22
Somalia	610	0.023	0.151	0.490	10
Israel	554	0.021	0.569	0.668	1
Nepal	505	0.019	0.287	0.752	5
Nigeria	406	0.015	0.239	0.571	7
Greece	340	0.013	0.456	0.509	3
Spain	327	0.012	0.343	0.697	4
Turkey	307	0.011	0.059	0.642	8
Indonesia	291	0.011	0.076	0.595	16
Yemen	284	0.011	0.123	0.549	11
Sudan	198	0.007	0.066	0.505	19
United States	188	0.007	0.489	0.824	2
Lebanon	155	0.006	0.123	0.387	12
Bangladesh	123	0.005	0.089	0.358	15
Uganda	121	0.004	0.058	0.868	20
Burundi	114	0.004	0.035	0.640	24

Table 6: Descriptive statistics for top 25 nations in the GTD.

4.5 Regressions

Table 7 presents results of straightforward bivariate regressions, both with and without (region and year) fixed effects and clustering by country. The patterns are largely consistent with the strategy-based hypotheses.

First, consider intimidation. Suicide attacks have a marked positive effect on the probability of a claim, as do casualties.²³ The qualitatively established spoiling hypothesis also finds credence: Attacks perpetrated within one week of a legislative or presidential election are less likely to be

²³But recall that we should be cautious in interpreting the substantive magnitude of this finding for casualties, given that more than 77% of incidents in the GTD involve two or fewer deaths

Covariate	Coefficient (No FE)	Coefficient (FE)
Killed	0.012*** (0.002)	0.013*** (0.005)
Suicide	0.977*** (0.064)	1.075*** (0.122)
Competition	0.082 (0.070)	0.464** (0.221)
Polity	0.134*** (0.006)	0.138** (0.047)
Democracy	0.747*** (0.037)	0.689 (0.513)
Log GDPPC	0.128*** (0.020)	0.314 (0.05)
Election 7	-0.285* (0.172)	-0.356** (0.162)
In 7	0.865*** (0.037)	0.913*** (0.138)
<i>N</i>	26,756	26,756

Significance at the 10% (*), 5% (**), and 1% (***) levels.

Table 7: Bivariate regressions on the entire dataset.

Covariate	Coefficient (No FE)	Coefficient (FE)
Polity	-0.013* (0.007)	0.034*** (0.009)
Polity ²	0.022*** (0.001)	0.017*** (0.001)
<i>N</i>	20,446	20,446

Significance at the 10% (*), 5% (**), and 1% (***) levels.

Table 8: Basic regression using quadratic Polity term.

Covariate	Coefficient (No FE)	Coefficient (FE)
Log GDPPC	-6.458*** (0.193)	-6.630*** (0.305)
Log GDPPC ²	0.397*** (0.011)	0.430*** (0.019)
<i>N</i>	26,576	26,576

Significance at the 10% (*), 5% (**), and 1% (***) levels.

Table 9: Basic regression using quadratic logged GDP per capita.

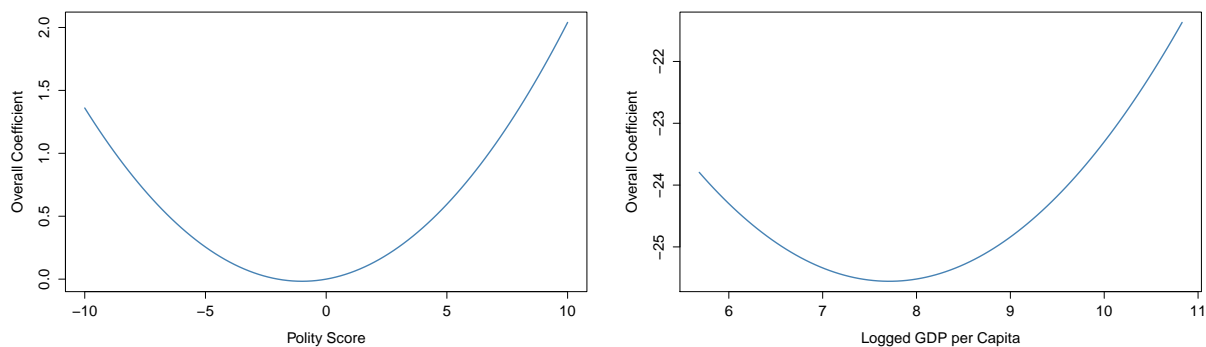


Figure 2: Overall effects of Polity and logged GDP per capita when including a quadratic term. (These are simply visualizations of Tables 8 and 9.)

claimed.²⁴

With attrition, we wait to evaluate Hypotheses 3 and 4 until the qualitative analysis. Our expectations about democracy appear to be sound: Claims are made far more frequently in democracies than non-democracies. Note that the coefficient for the democracy dummy, while highly positive, is not significant once we cluster and account for fixed effects. On the other hand, as indicated by Table 8, the quadratic Polity score remains highly significant and exhibits the U-shape postulated by Hypothesis 9. Figure 2 shows the overall effect of Polity; it contributes very little at middling levels of democracy (anocracy), and increases the likelihood of claims in highly autocratic and democratic contexts. Simple F -tests indicate that this quadratic expression for democracy has far better explanatory value than the binary term, despite the loss of data. The presence of a quadratic relationship may account for the democracy dummy’s loss of significance.

Table 9 shows the statistical results from adding a quadratic term for logged GDP per capita (which we mainly treated as a control in the analysis). Although Hypothesis 9 spoke about levels of democracy, it is also conceivable that state capacity is as important as institutional constraints. Bueno de Mesquita and Dickson (2007) state that the effectiveness of provocation is also a function of the government’s ability to distinguish between extremists and non-extremists: A state with no resources may be wholly unable to do this, while very resource-rich states may be extremely effective at identifying and narrowly targeting the terrorists without collateral damage. It is at middling levels of state capacity that provocation works best, since countries have resources to strike back

²⁴The other time frames were either significant at the 10% level or, as the timespan increased, not significant at any better level. Nevertheless, all coefficients were negative, as would be theoretically expected.

but not enough to be precise. As Figure 2 indicates, a very similar quadratic relationship exists with GDP per capita. Both institutional and capacity-related factors may play into the logic of provocation, but further investigation is required to make any firmer conclusions.

Outbidding also appears to occur in competitive terrorist environments. When multiple organizations are known to operate in a given country-year, the likelihood of a claim tends to increase.

Table 10 presents an omnibus regression performed using all of these covariates simultaneously, along with fixed effects and clustered standard errors. Model 1 uses Polity scores, while Model 2 uses the democracy dummy. Even with higher statistical hurdles, most of the findings are maintained. Rational strategies of terrorism appear to dictate terrorists' inclinations to augment the costliness of their public signals.

Two other comments are worthwhile. First, perhaps contradicting our intuitions, the effect of bombings on credit-claiming is negative. This suggests that bombings are generally seen as tasteless and relatively inexpensive acts that do not translate into reputational benefits. More than half of the events in the GTD involve bombings. However, once the bombing involves an act of suicide, terrorist organizations are far more eager to take responsibility because of the high human capital and capabilities that such an act signals. The group's willingness to sacrifice a life in the process may also serve as a form of justification for the deaths of bystanders.

Second, while primarily functioning as control variables here, target types and credit-claiming do appear related. When public locations are involved, fewer claims are made.²⁵ When the target is a diplomatic center (and as such, technically an "international" attack), terrorists are prepared to lay claim to such serious events that are also sure to attract the attention of not only the local press, but that of the represented nation. Religious targets also severely dampen claims of responsibility.²⁶ When attacks are orchestrated against religious targets such as mosques or churches, the perpetrators are less concerned about gaining popular or political support. Above all else, their main goal is spiritual fulfilment and divine approval (Rapoport 1997). Attacking religious institutions is also a sensitive affair that kills civilians in a moment of vulnerability, touching nerves

²⁵One may wonder how the choice of private target interacts with casualties, as the two are independently theorized to have opposing effects. A simple analysis testing their interaction suggests that claims tend to *decrease* over casualties in private targets (at a 1% level of significance); the fear of retaliation may outweigh the benefits of showing strength. This result aligns well with the aforementioned anecdotes from Spain and Ireland, where groups avoided culpability for mass killings in public locations.

²⁶This result is one of the strongest and is consistent through almost all regressions in Appendix A. The rationale for analyses included in Appendix A is provided below.

and potentially sparking even more incendiary responses, which links back to a fear of public backlash.

Of course, it would be short-sighted to believe that targets are chosen randomly; terrorist organizations take many situational variables into account when deciding what type of locales to target (Drake 1998). As will be made clearer in the case studies and as suggested in the theory section, a group's overall goals play a role in the types of attacks the organization will predominantly use. A diplomatic attack is a clear case where the extremists seek to gain attention and are taking substantial risks to penetrate a relatively hard target. The attack is planned with transparent hopes of getting noticed and seeming audacious.

These results strongly suggest that systematic patterns indeed exist in claim-making. However, one may be concerned that pooling all observations results in overpowered results that compare markedly heterogeneous states, undermining useful influence. Re-running these models using subsets of data may reduce concerns that reports on credit-claiming are not consistent across all countries. For instance, reports on claims or attacks in general may be far less reliable in war zones than in advanced industrialized countries. Some countries also have terrorist environments which are better understood—that is, the media and government are aware of active groups and able to make informed inferences about what group is responsible for an attack, even without a claim (or a formal denial of responsibility). Several regressions using these subsets are presented in Appendix A. Above all else, these supplementary regressions suggest that Iraq and Afghanistan, which constitute 31% of the data, may be driving some of the results. Models 3 and 4 in Table 10 provides the omnibus regression with these two countries' observations dropped. Most of the results remain intact even with this adjustment. Indeed, given that Iraq and Afghanistan were the source of missing Polity scores, their omission allows for an unbiased look at levels of democratic constraint on terrorism. The U-shape is strong here, lending credence to both the attrition and provocation hypotheses.

Table 6 also indicates that India and Pakistan constitute about a quarter of the data. To allay further concerns about these nations motivating the results, Models 5 and 6 perform the regressions with all four nations—Iraq, Pakistan, India, and Afghanistan—dropped from the data. Even with less than half of the original data left, the main results remain largely maintained. One exception is GDP per capita, the proxy for state capacity. The curvilinear relationship may have been shaped by these countries. This may also be attributable to mild correlation between logged GDP per

Table 10: Full Regressions on the GTD

	<i>Dependent variable:</i>					
	claimed					
	(1)	(2)	(3)	(4)	(5)	(6)
Suicide	1.302*** (0.195)	0.955*** (0.154)	1.291*** (0.220)	1.256*** (0.230)	1.192*** (0.284)	1.248*** (0.287)
Killed	0.015** (0.007)	0.014** (0.006)	0.013** (0.007)	0.011 (0.007)	0.011 (0.008)	0.008 (0.008)
Wounded	0.003 (0.003)	0.003 (0.002)	0.003 (0.003)	0.004 (0.003)	0.007*** (0.002)	0.007*** (0.002)
Polity	0.029 (0.023)		0.049** (0.022)		0.053** (0.026)	
Polity ²	0.016*** (0.004)		0.013*** (0.004)		0.020*** (0.005)	
Democracy		0.504** (0.227)		0.565*** (0.196)		0.724* (0.398)
Log GDPPC	-3.885** (1.874)	-6.912*** (1.462)	-3.020* (1.182)	-4.021* (2.091)	-1.296 (1.271)	-3.006* (1.665)
Log GDPPC ²	0.226** (0.107)	0.438*** (0.091)	0.163 (0.102)	0.247** (0.119)	0.051 (0.076)	0.185* (0.098)
Competition	0.538*** (0.173)	0.462** (0.208)	0.589*** (0.163)	0.493*** (0.161)	0.639*** (0.174)	0.521*** (0.170)
Bomb	-0.158 (0.130)	-0.301** (0.133)	-0.133 (0.134)	-0.125 (0.128)	-0.001 (0.165)	0.036 (0.164)
Assassination	-0.254** (0.124)	-0.014 (0.161)	-0.234* (0.130)	-0.251* (0.136)	-0.368** (0.167)	-0.405** (0.169)
Election 7	-0.653*** (0.180)	-0.500*** (0.141)	-0.597*** (0.194)	-0.524*** (0.198)	-0.611* (0.315)	-0.508* (0.299)
In 7	0.827*** (0.141)	0.820*** (0.123)	0.750*** (0.130)	0.829*** (0.143)	1.014*** (0.128)	1.121*** (0.140)
Private	-0.252 (0.176)	-0.314** (0.150)	-0.219 (0.174)	-0.197 (0.174)	-0.261 (0.246)	-0.204 (0.248)
Business	0.222 (0.227)	0.176 (0.191)	0.193 (0.229)	0.204 (0.226)	0.280 (0.307)	0.334 (0.302)
Education	0.013 (0.233)	-0.374 (0.321)	-0.018 (0.242)	-0.057 (0.229)	0.399 (0.391)	0.359 (0.381)
Diplomatic	0.389** (0.181)	0.414* (0.241)	0.423*** (0.177)	0.391** (0.187)	0.386* (0.217)	0.375 (0.232)
Government	0.133 (0.144)	0.133 (0.117)	0.151 (0.146)	0.180 (0.149)	0.172 (0.210)	0.215 (0.213)
Military	0.120 (0.175)	0.246 (0.164)	0.017 (0.178)	0.084 (0.195)	0.015 (0.252)	0.115 (0.278)
Religious	-0.510** (0.265)	-0.771*** (0.230)	-0.508* (0.269)	-0.548** (0.273)	-0.194 (0.263)	-0.197 (0.277)
Transport	-0.168 (0.175)	-0.183 (0.149)	-0.173 (0.179)	-0.140 (0.178)	-0.248 (0.291)	-0.184 (0.287)
Utility	0.544* (0.297)	0.496* (0.267)	0.500* (0.299)	0.468 (0.298)	0.239 (0.485)	0.276 (0.496)
Police	-0.248 (0.169)	-0.016 (0.194)	-0.205 (0.166)	-0.178 (0.169)	-0.185 (0.251)	-0.186 (0.247)
Constant	12.842 (8.140)	23.001*** (5.591)	10.661 (8.030)	13.278 (8.989)	4.152 (5.380)	9.290 (6.989)
Observations	19,425	25,279	17,245	17,298	11,159	11,212
R ²	0.203	0.186	0.194	0.179	0.279	0.256
χ ²	2,229.964***	2,631.216***	1,962.557***	1,808.001***	1,903.368***	1,742.939***

Significance at the 10% (*), 5% (**), and 1% (***) levels.

Covariate	Median	Result	Low	High
Suicide	0	***	6.01	14.29
Casualties	1	**	5.95	100.00
Competition	1	**	3.88	6.03
Bombing	1	**	7.98	6.03
Democracy (dummy)	0	**	6.03	9.60
Logged GDPPC	8.15	***	34.71	72.85
Within 7 days	0	***	6.03	12.72
Election	0	***	6.03	3.75
Religious	0	***	6.03	2.88

Table 11: Predicted probabilities of claims using the regression behind Model 2 of Table 10. Each covariate was evaluated at its minimum and maximum values while keeping all other covariates constant at their median values. The year used was 2010, and the region used was South Asia.

capita and Polity for this limited sample of countries; the correlation is 0.469. When either Polity or logged GDP per capita is dropped from Model 5, the remaining covariate becomes statistically significant in the theorized manner. (These results are presented in Appendix B.)

Coefficients for logit regressions are difficult to interpret in substantive terms. Table 11 provides predicted probabilities over multiple permutations of attacks.

5 Within-Country Group Analysis

We earlier hypothesized that terrorist groups' overall strategies and objectives may have a bearing on patterns of credit-claiming. In particular, organizations with limited and specific ends will take responsibility for more of their attacks, using those moments as opportunities to explicate their objectives. This obviously necessitates the reducing of uncertainty; more likely to be seeking to claim attacks, these organizations will also be less destructive in their attacks. Moreover, these groups resort to strategies of attrition to slowly wear down the resolve of the state; the complementary desire for costlier signals also boosts credit-claiming. Meanwhile, organizations with broad and revolutionary aims will engage in more destructive forms of terror meant to intimidate and destroy the public and government. With a universal (perhaps illusory) message and resorting to more overtly deathly acts, these groups are more likely to thrive in environments of uncertainty and not care for the use of attrition.

These ideas could not be properly evaluated using econometric methods, which largely attested to the individual characteristics of an attack. (State-level attributes such as democracy are included

Organization	Unclaimed : Claimed	% Claimed
Baloch Republican Army (BRA)	7:40	85.11%
Tehrik-i-Taliban Pakistan (TTP)	75:106	58.56%
Taliban in Pakistan	304:64	17.39%

Table 12: Claim rates for three Pakistani terrorist groups. Numbers based on GTD.

as well, but are only one ingredient in a longer list of attack attributes.) While this attack-level approach may speak to an underlying global pattern that is clearly apparent in the data, extant theories of terrorism suggest that variation occurs on other dimensions beyond the individual attack.

We therefore turn to some very brief qualitative comparisons *within* countries: Why do groups in a single country differ on rates of credit claiming? For example, in Nigeria, the Movement for the Emancipation of the Niger Delta has a claim rate of over 80%, while Boko Haram has one at 20%. What accounts for this? By ostensibly holding state-based conditions “constant,” we could suss out key distinctions between groups.

Some degree of bias will undoubtedly exist in the qualitative analysis, as well. Given that about 15,000 out of the 26,000 attacks used in the quantitative analysis were by unknown perpetrators, terrorist groups analyzed in case studies may actually have lower claim rates than explicitly stated by the GTD. We are also unable to analyze or compare the universe of terrorist groups, instead selecting more notable organizations with multiple attacks. However, this limited investigation should still be quite suggestive, especially if it is consistent overall, and lay groundwork for further studies.

5.1 Inside Pakistan

Pakistan provides a useful example of within-country variation. As Table 12 shows, three extremist organizations feature prominently in the nation’s strife with terrorism, and each has a remarkably different rate of credit-claiming for their attacks. Buttressing each of these rates is a different overarching goal and methodology.

5.1.1 The Baloch Nationalist Movement

The Baloch population are an ethno-linguistic group mostly located in present-day Iran, Afghanistan, and Pakistan. The largest contingent of this semi-nomadic group lives in Balochistan, which is a

Target Type	BRA		Baloch Groups		TTP		Taliban	
	NC : C	% Total	NC : C	% Total	NC : C	% Total	NC : C	% Total
Business	1:5	12.8	4:13	13.6	6:9	8.3	19:3	5.98
Diplomatic	–	–	0:1	0.1	0:4	2.2	3:0	0.8
Education	–	–	2:2	3.2	12:10	12.2	87:10	26.4
Government	–	–	6:10	12.8	3:10	7.2	20:5	6.8
Military	–	–	0:1	0.8	4:6	5.5	15:3	4.9
Police	–	–	1:7	6.4	9:13	12.2	9:5	3.8
Private	2:4	12.8	7:13	16	24:33	31.5	106:33	37.8
Religious	–	–	–	–	7:9	8.8	5:0	1.4
Transport	2:4	12.8	8:6	11.2	–	–	9:0	2.5
Utility	2:27	61.7	5:36	32.8	–	–	4:0	1.1
<i>Totals</i>	7:40	100	33:88	97.6	65:90	87.8	274:59	91.3

Table 13: Breakdown of targets chosen and claims made by prominent Pakistani extremist organizations.

western province of Pakistan. It is also the largest. Despite being very arid and inhospitable for agriculture, the area contains substantial natural resources like copper and gold, and supplies natural gas to some areas of the country.

During Britain’s rule over colonial India, Balochistan was an administrative zone that was overlooked in terms of development if not outright exploited. Baloch desires for autonomy began to develop in the early twentieth century. By 1935, the diffuse and sparse Baloch population established the Kalat National Party with hopes of an independent Balochistan after the end of Britain’s rule (Titus and Swidler 2000). 1947 brought the formal independence of India, and also its partitioning into India and Pakistan. Baloch leaders proposed an independent state and sought relations with Pakistan. Pakistan refused the proposition and promptly invaded Balochistan, only making it an official province in 1970. Increasingly frustrated by the Pakistani government’s tactics of political marginalization; exploitation of Balochistan’s resources; and unwillingness to grant autonomy, Baloch nationalists instigated an armed insurgency in the mid-1970s (Khan 2003). Due to the tribal and sparse realities of Baloch society, several allied militant organizations (classified by Pakistan as terrorist organizations) have fought for the cause. The Baloch Republican Army (BRA) is one of these groups.

The BRA admittedly has far fewer attacks under its belt than Tehrik-i-Taliban or the Afghan Taliban, which are the other two groups considered here.²⁷ This may lead one to believe that the proportion of a group’s claims simply correlates with the number of attacks; perhaps claims decrease with the frequency of violent acts, either because claims are no longer necessary or because they are

²⁷The GTD contains ten Baloch organizations, some of which may not actually be distinct groups. If all Baloch-related attacks are summed, 90 of 124 attacks—about 73%—are claimed. This is still a substantially higher number than for the TTP, which has the next-highest rate.

not recorded as judiciously. However, simple bivariate regression demonstrates that this is unlikely; no statistically significant linear (or quadratic) relationship exists between the number of attacks by a group and the group’s frequency of credit-claiming.²⁸

With a rate of 85%, the BRA appears enthused about credit-claiming. Table 13 indicates that this is not a random outcome. First, according to Table 13, groups increasingly reliant on attacking private citizens and property are less likely to claim credit for their attacks. This may perhaps be due to fear of public backlash, and largely corroborates the regressions. Second, also in Table 13, the Baloch Republican Army predominantly attacks utilities.²⁹ The BRA’s own website avers that their primary targets are “state machinery and infrastructure like railway lines, communication system, gas pipelines, wells and plants, electricity pylons and any other system involved in the relentless exploitation of the Baloch national wealth” (BRA 2013). The organization appears to purposefully choose “innocuous” targets that minimize the risk of harming innocent civilians while still causing enough trouble to attract attention. 27 of the Army’s 29 attacks on utilities were subsequently claimed. Even when looking at Baloch groups in general, some of which perpetrate much bloodier attacks on populated areas, the claim rate exceeds 50% for practically every target type.

The Balochs’ primary audience is the Pakistani government and people. Their persistence for about a century has demonstrated their commitment to the cause. The addition of a forty-year-old militant campaign epitomizes a strategy of attrition.³⁰ For decades now, the organization has remained vocal in accusing Pakistan of illegally expropriating Balochistan’s natural resources; even non-militarized Baloch citizens have engaged in defiance by boycotting national elections.

As such, Hypothesis 3 seems to be plausible. For both strategic and reputation-based reasons, nationalist movements have incentives to engage in long-term campaigns in order to achieve what are politically plausible ends. The reliance on attrition magnifies the usefulness of costlier signals that minimize uncertainty while showing the group’s strength and resolve. Simultaneously, the desire

²⁸The analysis is not shown here. To perform this regression, the dataset was reduced to only those extremist groups that have performed five or more terrorist acts. Many groups are only recorded with one attack, so the inclusion of their proportion of claims (either 0 or 1) would undermine the analysis. Proportion of claims was then calculated for the remaining 191 out of the original 684 groups, and this number was regressed on number of attacks by group. $p = 0.24$. No significant relationship exists even when the threshold for inclusion is changed to > 1 or > 50 attacks.

²⁹“Utilities” in the GTD “pertains to facilities for the transmission or generation of energy. For example, power lines, oil pipelines, electrical transformers, high tension lines, gas and electric substations, are all included in this value. This value also includes lampposts or street lights. Attacks on officers, employees or facilities of utility companies excluding the type of facilities above are coded as business” (Codebook, p. 30).

³⁰It is worth mentioning that not all Balochs approve of militant tactics.

to express specific grievances while not alienating the public audience appears to also determine nationalist groups' choice of targets. The relationship between target types and claim-making seen in the regressions may be partially based on this sort of strategic dynamic.

5.1.2 Tehrik-i-Taliban Pakistan

Tehrik-i-Taliban Pakistan (TTP, also known as the Pakistani Taliban Movement, despite not being an official off-shoot) has arguably been the country's most troubling presence since its official inception in 2007. The organization, with historical roots in an organization with the same name from 1998, has the support of numerous Taliban organizations across the country and vigorously promotes the driving out of American forces; opposition to the Pakistani government and military, which it sees as being complicit to the West's invasion of the country; and most importantly, the implementation of Sharia law across the country. As such, their primary goal has been to destabilize and undermine the Pakistani state apparatus in an attempt to undermine Pakistan's relations with the West and to hopefully topple the current regime. Rhetorically, the TTP factions term their mission as a "defensive *jihad*."³¹

TTP's expansive goals and desire to eliminate the state serve as downward forces on their rates of credit-claiming. Without as much of a need to "converse" with the government, the incentive to reduce uncertainty after attacks is not as compelling as for nationalist groups. Indeed, studies of the TTP indicate that, beyond the imposition of *sharia* law in Pakistan, the organization lacks any concrete political agenda worth discussing (Siddique 2010). Moreover, about a third of the TTP's attacks are directed at public areas. The hazard to civilians, along with the state's inability to effectively deal with such violence, only intensifies reasons for the TTP to remain quiet.

Nonetheless, the TTP's overall known rate of claims is relatively high for a jihadist organization with aims to provoke and break down the government. Several group-specific factors may account for this. First, the TTP is a nascent organization that is seeking to establish a reputation and ubiquitous identity. Quite tellingly, the organization's establishment was formally announced to the media, which was actively recruited for the public proclamation of the group's structure and functions (Gul 2010). Second, the average age of a TTP leader is thirty-five—a low number. Indeed,

³¹The only international attack the group has claimed is the 2010 Times Square bombing attempt, though this is likely erroneous.

the newer breed of younger TTP leaders are technologically savvy and leverage this knowledge to propagandize to a wider audience (Mir 2009). This publicity has been important, since the TTP is relatively short on material resources and thus relies heavily on the collection of human capital in order to achieve many of its ends. While some of this is done by kidnapping children and teenagers, much of the substantive recruitment is done through the use of radio in internal displacement camps; and CDs, DVDs, and Internet broadcasts across the country (Khan 2009).³² Third, the constant use of media outlets indicates the group's desire to obtain notoriety in a competitive landscape. Their concern with domestic affairs and reputation is evident in their claims of responsibility. After opening fire at a news station in Karachi in June 2012, the TTP took credit and threatened further attacks on other stations that did not discuss the Taliban's perspective and "have been using very bad language against the mujahadeen" (BBC 2012b). Three months earlier, the TTP took credit for the deadly bombing of a mosque operated by Lashkar-e-Islam, a different militant group in Pakistan fighting for influence in ungoverned areas of the Tirah Valley. In doing so, the TTP also told reporters that it promised to continue attacks against the rival organization (Tribune 2012).

Indeed, competition takes center stage in the TTP's drive to create a distinct identity. Among a plethora of active organizations, Jaish-e-Mohammed (JeM) and Lashkar-e-Taiba (LeT) are two of the most well-established and active Islamic groups in South Asia, and both primarily operate out of Pakistan. The two groups are primarily focused on attacking India over the issue of Kashmir. As such, the JeM and LeT allegedly receive support from Pakistan's Directorate for Inter-Services Intelligence (ISI), the government's intelligence service, despite officially being deemed terrorist organizations. The institutional support for these extremists has caused resentment within the TTP (a group that the Pakistani government overtly seeks to destroy), and the TTP views itself as an explicit rival to both (Mapping Militants Project 2013). Both the JeM and LeT have offshoots that also perpetrate acts of terror in Pakistan, and both have a robust presence in the country. For example, the LeT allegedly runs "16 Islamic institutions, 135 secondary schools, an ambulance service, mobile clinics, blood banks and several seminaries across Pakistan" (South Asia Terrorism Portal 2013). The TTP must find ways to draw limited people and resources away from such compelling services and infrastructures.

³²This should not overshadow the fact that much of the TTP's finances also appear to be obtained from extortion, ransom from kidnappings, and protection rackets.

The dynamics of intimidation and competition obviously take center stage in such claims of responsibility. The use of kidnappings for ransom and the need for domestic support in the face of meager resources also motivate the TTP's higher propensity to associate themselves with their attacks. Nonetheless, their lack of concrete political objectives and desire to survive are countervailing forces. Compared to the Baloch nationalists, a strategy of attrition is not amenable to their overall goals; other approaches such as pure intimidation and provocation are more appealing. These findings speak suggestively to the validity of Hypothesis 8.

5.1.3 The Taliban in Pakistan

The case of the Taliban does not directly relate to the attrition hypotheses evaluated above. Nonetheless, their ties with Pakistan are hard to ignore, and contrasts between this group and the two others still prove informative.

The Taliban is obviously focused in Afghanistan but has substantial ties with Pakistan. Pakistan's ISI provided material and logistical support to found the present-day Taliban in 1994 to have sway in Afghanistan's domestic politics and create a regime amenable to Pakistan (Peimani 2003). Although Pakistan asserts that it has ceased all support after 9/11, this is likely untrue (Waldman 2010). The provision of safe haven to Osama bin Laden starkly brings this to light. The Taliban still maintains areas of operation in Pakistan and is responsible for a sizeable number of attacks in the country.

Constituting Afghanistan's government from 1996-2001, the Taliban was internationally rebuked for its imposition of Sharia law and human rights violations. Only three nations formally recognized the Taliban government: Saudi Arabia, the United Arab Emirates, and Pakistan. The extremist group was forcibly removed from power after American intervention on the heels of September 11, 2001. Since their ouster, the Taliban has predominantly focused on driving out coalition forces and combating local security apparatus, which may explain why the Taliban is so frequently cited in American news. Moreover, in spite of ISI's support of the Taliban, relations between the two nations are strained. A historical dispute over the Pakistan-Afghanistan border, known as the Durand Line, has sparked constant tensions and armed skirmishes that also involved extremist violence on both sides. A portion of attacks in Pakistan attributed to the Taliban speak to this conflict. For instance, in September 2005, suspected Taliban members fired three rockets at a Pakistani military base on

the border in North Waziristan.³³ As a consequence of back-and-forth violence which has also harmed civilians, Pakistani public opinion toward the Taliban has fallen, and some factions of the Afghan Taliban have turned against the Pakistani government (Habib 2013).

The battle between the United States and Afghanistan has also crept into Pakistan. Many attacks appear to be in response to Pakistanis' cooperation with the United States. In late 2008, pro-Taliban militants killed a Pakistani civilian. In a note left with the body, the Taliban accused the individual of spying for the United States and warned that anyone spying on the organization "would face the same fate."³⁴

The contrast between the Pakistani Taliban with relatively high claim rates versus the Afghan Taliban with low claim rates is stark. A breakdown of each group's attacks by target type shows that their methods are similar. However, only 15 of 368 (4.07%) recorded attacks for the Afghan Taliban involve suicide, while the number is 42 of 181 (23.20%) for the Pakistani Taliban. The statistical analysis demonstrated the strong positive effects of suicide attacks on credit-claiming. Moreover, despite similar proportions in these general terms, the TTP is focused on domestic actors; the Afghan Taliban operating in Pakistan is fundamentally committing international attacks, whether directed against Pakistan or (by proxy) the United States. This matters for a couple reasons.

First, the Taliban does not appear to see itself in competition with domestic Pakistani organizations; indeed, their attacks in Pakistan seem focused on border security apparatus, individuals they accuse of aiding the United States, and causing overall chaos in disputed regions. Perhaps as a sign of the Taliban's prominence in these limited arenas, the GTD often notes that the Taliban is publicly suspected of being responsible even when no claim is made.

Secondly, on a logistical level, the Taliban's main operations and recruitment still occur in Afghanistan. There is thus less reason to claim attacks in Pakistan for the sake of shoring up organizational support.

³³See GTD Event ID 200509180002.

³⁴See GTD Event ID 200812050005. In another incident several months before, Taliban militants publicly slit the throats of two Afghan nationals that were suspected of performing reconnaissance work for a United States missile strike on a border region at the beginning of the month. In similar language, the extremists declared that "whoever spies for the Americans will meet the same fate." See Event ID 200806270004.

5.2 External Validity

As such, all three organizations have divergent interests, and this may inform their patterns of credit-claiming to some extent. These insights find corroborating evidence in other parts of the world, as well. Preliminary work by Sánchez-Cuenca (2007) shows that in Western Europe, nationalist organizations tend to be most willing to claim credit for their attacks. Nationalist efforts capitalize on attrition and wearing down the will of the state. Furthermore, as Sánchez-Cuenca (2007) notes, nationalist terrorism needs a constituency and must be identified with the group to be truly effective: “It is obvious that potential followers can only be mobilized if they understand that violence is a signal sent by the terrorist organization about the prospects of revolution. Likewise, the state only feels coerced if violence is associated with demands coming from the perpetrators.” The qualitative comparison here intimates that similar incentives exist in the BRA, outside of Europe. We also note that the BRA has made no suicide attacks, which is consistent with research suggesting that minority groups and groups seeking autonomy are typically not motivated to utilize suicide attacks (Collard-Wexler et al. 2013). Indeed, a stark majority of their attacks are focused on destroying infrastructures, which garner attention and create inconveniences without inflicting excessive damage.

6 Conclusions

At the opening of this paper, we made the observation that terrorist attacks often tend not to be claimed, and that an instinctual reaction people have to such assaults is to wonder who is responsible. It is therefore puzzling that so few academics have explicitly or systematically investigated patterns of credit-claiming, or attempted to understand the implications it could have on our casual and academic understanding of terrorist behavior.

An extremist attack is inherently costly signal. One novel idea presented here is that claims of credit enhance the costliness of this signal. By formally associating oneself with an incident, a group opens itself to greater public and governmental scrutiny. However, a useful trade-off exists: Costlier signals also allow for more informative signals and potential support from hard-liners in society. The concept of claims enhancing costliness helps to link credit-claiming to a large body of qualitative literature on the strategies of terrorism. Indeed, a quantitative and large- N analysis of

credit claiming can serve as an empirical test of many geographically limited studies and theories. Kydd and Walter's (2006) seminal article on five overarching strategies proves to be a useful platform for the development and evaluation of hypotheses.

The derived hypotheses and results demonstrate that terrorists are indeed strategic in choosing when to claim responsibility for attacks. They engage in calculations to determine whether the resolution of uncertainty to their target audience is compatible with their own strategic interests. This operates on two levels. First, a group's overall ideology and goals appear to account for a kind of "baseline" level of claim-making. Specifically, a review of Pakistan intimates that groups with more limited aims (particularly nationalist organizations) engage more heavily in strategies of attrition and therefore appear more willing and compelled to claim credit for attacks. Secondly, beyond this group-centric baseline, the particular circumstances of an attack can convey a certain level of ability or attract a desired level of attention. Thirteen years of data suggest that extremists typically do not claim responsibility for attacks, perhaps because the overriding goal of intimidation, along with provocation and spoiling, is best promoted by anonymity. However, incentives to claim grow when an attack signals high capabilities via suicide tactics or high casualties; when multiple organizations vie for limited support; and when the targeted state is more institutionally constrained from retaliating.

As such, the choice of whether or not to claim responsibility for an attack is a vital decision that speaks to a perpetrators' goals and consequences. A government's ability to appropriately respond and a general public's receptiveness to an attack may all hinge substantially on properties of this signal. Prominent formal treatments such as that of Bueno de Mesquita and Dickson (2007) would be well-suited for and enriched by incorporation of this decision.

We have taken target type to be exogenously given. However, the qualitative analysis of Pakistani groups intimates that the choice of target could easily be a function of the terrorist environment or the country itself; the decision may be strategic in its own right. For example, in countries with high levels of counterterrorism measures, extremists may be unable to assault "hard targets" such as government, police, or military buildings. They may then be forced *substitute* and more frequently attack "soft targets" (Enders and Sandler 2002; Cauley and Kim 1987). As a result, claim-making may decrease. Substitution is not only theoretical: After the series of airplane hijackings in the 1970s, the installation of metal detectors at airports swiftly caused extremists to

change strategy (Drake 1998). We saw that the Baloch Republican Army in Pakistan predominantly attacks public utilities; this is likely a concerted choice that may also be a function of the strength, objectives, and cohesiveness of the organization. A study by Drake (1998) is the most concerted effort to study terrorists' choice of targets. However, a more recent and rigorous study on this matter would be highly beneficial and potentially shape counterterrorism policy.

The constructed binary measure of competition is admittedly crude. Outside of the situation in Israel and Palestine, very little work has been done to date on the dynamics of inter-group competition among terrorists. There are two promising directions for investigating the effect of competition at a deeper level. One would be to take a small subset of countries and count the number of viable terrorist groups in each one, along with each one's relative strength and connections to other organizations. It is highly plausible that three commensurate terrorist organizations interact quite differently than one dominant group against two small ones. We must also acknowledge that some terrorist groups actually cooperate with each other to fulfill short- or long-term goals (Crenshaw 2011). Martha Crenshaw's current "Mapping Militants" project, used above to review the environment in Pakistan, takes a step in this direction.

These results carry policy implications. Natural next steps would involve examining whether claim-making has any concrete effects on terrorist recruitment, or perhaps some kind of tangible psychological effect on citizens and/or the government. Intuition, observations, and the results of this paper suggest that such effects do exist, though they have yet to be quantified. If they do, this study may inform manners in which the media and government can—by wielding some control over the terrorists' use of uncertainty—make efforts to contain the public prominence and influence of extremist organizations, which in turn could undermine their capabilities and ability to grow.

Successful work on terrorism, in both academic and policy circles, relies on a deep understanding of extremists' motivations. Assuming that these individuals primarily and blindly seek publicity may be an anachronistic characterization that undermines our ability to understand the modern environment of terrorism. Identifying the specific contexts in which extremists *do* seek attention can not only help reveal terrorists' decision-making calculus but also pinpoint ways in which governments can contain terrorists' ability to manipulate perceptions of themselves, preempting the exploitation of media coverage as a weapon of the weak.

References

- Arce, Daniel G. and Sandler, Todd. 2007. "Terrorist Signaling and the Value of Intelligence." *British Journal of Political Science* 37: 573–586.
- Arreguín-Toft, Ivan. 2001. "How the Weak Win Wars: A Theory of Asymmetric Conflict." *International Security* 26(1): 93–128.
- Atran, Scott. 2006. "The Moral Logic and Growth of Suicide Terrorism." *The Washington Quarterly* 29(2): 127–147.
- BBC. 2012a. "Islamist group al-Nusra Front 'behind Damascus blasts'."
- BBC. 2012b. "Taliban attack Pakistan's Aaj TV station in Karachi."
- Berman, Eli and Laitin, David D. 2005. "Hard Targets: Theory and Evidence on Suicide Attacks." Working paper, National Bureau of Economic Research.
- Bloom, Mia M. 2004. "Palestinian Suicide Bombing: Public Support, Market Share, and Outbidding." *Political Science Quarterly* 119(1): 61–88.
- Bloom, Mia M. 2005. *Dying to Kill: The Allure of Suicide Terror*. New York: Columbia University Press.
- Borradori, Giovanna. 2003. *Philosophy in a Time of Terror: Dialogues with Jürgen Habermas and Jacques Derrida*. Chicago: University of Chicago Press.
- Braithwaite, Alex, Foster, Dennis M., and Sobek, David A. 2010. "Ballots, Bargains, and Bombs: Terrorist Targeting of Spoiler Opportunities." *International Interactions* 36(3): 294–305.
- Bueno de Mesquita, Ethan and Dickson, Eric S. 2007. "The Propaganda of the Deed: Terrorism, Counterterrorism, and Mobilization." *American Journal of Political Science* 51(2): 364–381.
- Cauley, Jon and Kim, Eric I. 1987. "Intervention Policy Analysis of Skyjackings and Other Terrorist Incidents." *American Economic Review* 78(2): 27–31.
- Chenowith, Erica, Miller, Nicholas, and McClellan, Elizabeth. 2009. "Correspondence: What Makes Terrorists Tick." *International Security* 33(4): 180–202.
- Clarke, Robert V. and Newman, Graeme R. 2006. *Outsmarting the Terrorists*. London: Praeger.
- Collard-Wexler, Simon, Pischedda, Constantino, and Smith, Michael G. 2013. "Do Foreign Occupations Cause Suicide Attacks?" *Journal of Conflict Resolution* Forthcoming: .
- Crenshaw, Martha. 2011. *Explaining Terrorism: Causes, processes and consequences*. London: Routledge.
- Drake, C.J.M. 1998. *Terrorists' Target Selection*. New York: St. Martin's Press.
- Enders, Walter and Sandler, Todd. 1995. "Terrorism: Theory and Applications." In *Handbook of Defense Economics*, editors Keith Hartley and Todd Sandler. Amsterdam: Elsevier.
- Enders, Walter and Sandler, Todd. 2002. "What Do We Know about the Substitution Effect in Transnational Terrorism?" Unpublished manuscript.

- Fearon, James D. and Laitin, David D. 2003. "Ethnicity, Insurgency, and Civil War." *American Journal of Political Science* 97(1): 75–90.
- for the Study of Terrorism, National Consortium and to Terrorism, Responses (Editors). 2011. *Global Terrorism Database Codebook: Inclusion Criteria and Variables, 2011*. College Park, MD: University of Maryland.
- Frieden, Jeffrey A., Lake, David A., and Schultz, Kenneth A. 2013. *World Politics: Interests, Interactions, Institutions*. New York: W.W. Norton & Company.
- Gibbs, Jack P. 1989. "Conceptualization of Terrorism." *American Sociological Review* 54(3): 329–340.
- Gul, Imtiaz. 2010. *The Most Dangerous Place: Pakistan's Lawless Frontier*. New York: Penguin Books.
- Habib, Mina. 2013. "Afghan Taleban Fighters Turn on Pakistan."
- Harmon, Christopher C. 2001. "Five Strategies of Terrorism." *Small Wars & Insurgencies* 12(3): 39–66.
- Heath, Robert L. and O'Hair, Dan. 2008. "Terrorism from the Eyes of the Beholder." In *Terrorism: Communication and Rhetorical Perspectives*, editors Kevin J. Ayotte Dan O'Hair, Robert L. Heath and Gerald R. Ledlow. Cresskill, NJ: Hampt.
- Hoffman, Aaron M. 2010. "Voice and silence: Why groups take credit for acts of terror." *Journal of Peace Research* 47(5): 615–626.
- Hoffman, Bruce. 1997. "Why Terrorists Don't Claim Credit." *Terrorism and Political Violence* 9(1): 1–6.
- Hoffman, Bruce. 2006. *Inside Terrorism*. New York: Columbia University Press, second edition.
- Hyde, Susan D. and Marinov, Nikolay. 2012. "Which Elections can be Lost?" *Political Analysis* 20(2): 191–210.
- Khan, Adeel. 2003. "Baloch Ethnic Nationalism in Pakistan: From Guerilla War to Nowhere?" *Asian Ethnicity* 4(2): 281–293.
- Khan, Imran. 2009. "Taliban 'using Karachi funds'." Technical report, Al-Jazeera English.
- Kron, Josh and Ibrahim, Mohammed. 2010. "Islamists Claim Attack in Uganda." *The New York Times* 159: A8.
- Krueger, Alan B. and Malečková, Jitka. 2003. "Education, Poverty and Terrorism: Is There a Causal Connection?" *Journal of Economic Perspectives* 17(4): 119–144.
- Kydd, Andrew and Walter, Barbara F. 2002. "Sabotaging the Peace: The Politics of Extremist Violence." *International Organization* 56(2): 263–296.
- Kydd, Andrew H. and Walter, Barbara F. 2006. "The Strategies of Terrorism." *International Sec* 31(1): 49–79.
- Lipset, Seymour M. 1960. *Political Man: The Social Bases of Politics*. Garden City, NY: Doubleday & Company.

- McCormick, Gordon H. 2003. "Terrorist Decision Making." *Annual Review of Political Science* 6: 473–507.
- Merari, Ariel. 1993. "Terrorism as a Strategy of Insurgency." *Terrorism and Political Violence* 5(4): 213–251.
- Mir, Amir. 2009. "Of Pakistani jihadi groups and their al-Qaeda and intelligence links."
- Moghadam, Assaf. 2006. "Suicide Terrorism, Occupation, and the Globalization of Martyrdom: A Critique of Dying to Win." *Studies in Conflict & Terrorism* 29(8): 707–729.
- Pape, Robert A. 2005. *Dying to Win: The Strategic Logic of Suicide Terrorism*. New York: Random House.
- Peimani, Hooman. 2003. *Falling Terrorism and Rising Conflicts: The Afghan Contribution to Polarization and Confrontation in West and South Asia*. Westport, CT: Praeger.
- Piazza, James A. 2008. "A Supply-Side View of Suicide Terrorism: A Cross-National Study." *Journal of Politics* 28(1): 28–39.
- Post, Jerrold M. 2007. *The Mind of the Terrorist: The Psychology of Terrorism from the IRA to al-Qaeda*. New York: Palgrave Macmillan.
- Przeworski, Adam, Alvarez, Michael E., Cheibub, José Antonio, and Limongi, Fernando. 2000. *Democracy and Development: Political Institutions and Well-Being in the World, 1950-1990*. Cambridge: Cambridge University Press.
- Rapoport, David C. 1997. "To Claim or not to Claim; that is the Question – Always!" *Terrorism and Political Violence* 9(9): 11–17.
- Rorie, Melissa L. 2008. *Communicating Through Violence: An Application of Rational Choice Theory to Terrorist Claims of Responsibility*. Master's thesis, University of Maryland, College Park.
- Ruby, Charles L. 2002. "The Definition of Terrorism." *Analyses of Social Issues and Public Policy* 2(1): 9–14.
- Sánchez-Cuenca, Ignacio. 2007. "When do terrorist organizations not claim their killings?" In *Mimicry in Civil Wars Conference*. Paris.
- Siddique, Qandeel. 2010. "Tehrik-e-Taliban Pakistan: An Attempt to Deconstruct the Umbrella Organization and the Reasons for its Growth in Pakistan's North-west." Technical report, Danish Institute for International Studies, Copenhagen.
- Siegel, David A. and Young, Joseph K. 2009. "Simulating Terrorism: Credible Commitments, Costly Signaling, and Strategic Behavior." *PS: Political Science and Politics* 42(4): 765–771.
- Sinclair, Samuel J. and Antonius, Daniel. 2012. *The Psychology of Terrorism Fears*. Oxford: Oxford University Press.
- Stout, Mark E., Huckabey, Jessica M., Schindler, John R., and Lacey, Jim. 2008. *The Terrorist Perspectives Project: Strategic and Operation Views of Al Qaida and Associated Movements*. Annapolis: Naval Institute Press.

- Titus, Paul and Swidler, Nina. 2000. "Knights, Not Pawns: Ethno-Nationalism and Regional Dynamics in Post-Colonial Balochistan." *International Journal of Middle East Studies* 32(1): 47–69.
- Tribune, Express. 2012. "Taliban bomber kills 12 'extremists' in Khyber region." Technical report, International Herald Tribune.
- Victoroff, Jeff. 2005. "The Mind of the Terrorist: A Review and Critique of Psychological Approaches." *Journal of Conflict Resolution* 51(2): 13–42.
- Wade, Sarah J. and Reiter, Dan. 2007. "Does Democracy Matter? Regime Type and Suicide Terrorism." *Journal of Conflict Resolution* 51(2): 329–348.
- Waldman, Matt. 2010. "The Sun in the Sky: The Relationship between Pakistan's ISI and Afghan Insurgents." In *Crisis States Discussion Papers*. London School of Economics. Discussion Paper.
- Wright, Austin L. 2011. "Why Do Terrorists Claim Credit?" Unpublished manuscript, Princeton University.
- Zeidan, Sami. 2004. "Desperately Seeking Definition: The International Community's Quest for Identifying the Specter of Terrorism." *Cornell International Law Journal* 36: 491–496.

Appendix A: Subsetting the Data

As mentioned in the “Regressions” section, there may be concerns that pooling all observations in the GTD is overpowering the statistical results and comparing fundamentally disparate sets of countries. Here, we split the data into several relevant subsets and rerun the model on the shortened data. The results suggest that patterns vary to some extent across regions, but the low number of observations and/or lack of variance within certain subsets should prevent jumps to hasty conclusions.

All regression outputs are provided in Table 14. Descriptions and comments for each subset of nations follows.

Model 1: “Western” States

We first turn to Western Europe and North America, which are two regions with the highest levels of credit-claiming. Of 1,093 attacks logged in the GTD, over 40% have explicit statements of responsibility. Compared to the global average of 13%, this is strikingly high.

The results of a regression including fixed effects and clustered standard errors is presented below. Democracy and logged GDP per capita are omitted due to lack of almost any variation.

Some factors such as suicide attack are not significant due to a low number of observations (there are only nine suicide attacks). In a region that already confronts high levels of claiming, we are largely unable to find systematic patterns of credit-claiming with respect to target types. The only exception is religious centers, where the probability of a claim drops precipitously. Casualties and a competitive environment amplify claims, aligning with theories of competition and signaling group strength. In contrast to the omnibus analysis and the regions that follow, bombings increase the likelihood of a claim. While considered a reprehensible tactic, bombings convey a sense of ability and provide visceral images that are not commonplace to these regions.

Politics and elections are exceedingly stable and transparent in these nations, which may explain why the logic of spoiler violence does not seem to apply here.

Table 14: Full regressions on subsets of data. Region fixed effects, year fixed effects, and robust standard errors clustered by country included throughout (with the exception of Model 5).

	<i>Dependent variable:</i>					
	claimed					
	(1)	(2)	(3)	(4)	(5)	(6)
Suicide	-0.815 (0.977)	0.752*** (0.110)	0.942*** (0.275)	0.738*** (0.232)	0.072 (0.213)	1.329*** (0.204)
Killed	0.049*** (0.018)	0.019*** (0.005)	0.011*** (0.003)	0.019 (0.019)	0.005 (0.005)	0.023*** (0.006)
Wounded	0.002 (0.004)	0.003 (0.002)	0.005*** (0.002)	-0.001 (0.005)	-0.005 (0.005)	-0.001 (0.004)
Democracy			0.159 (0.382)	0.900*** (0.191)	2.018** (0.801)	
Log GDPPC			-5.227*** (1.063)	8.244** (3.570)	-12.089 (7.947)	-3.802 (3.287)
Log GDPPC ²			0.380** (0.064)	-0.643*** (0.244)	0.751 (0.541)	0.249 (0.180)
Competition	0.393* (0.232)	10.759*** (0.979)	0.338 (0.269)	0.083 (0.224)	0.584* (0.303)	0.433** (0.175)
Bomb	0.469* (0.266)	-0.705*** (0.118)	-0.087 (0.219)	-0.499*** (0.146)	-0.195* (0.112)	-0.088 (0.141)
Assassination	-0.146 (0.521)	0.153 (0.161)	0.040 (0.093)	0.126 (0.141)	-0.400 (0.267)	-0.274 (0.183)
Election 7	-0.100 (0.661)	-0.650*** (0.187)	-0.324 (0.450)	-0.723*** (0.152)	-1.254** (0.508)	-0.598*** (0.193)
In 7	0.598*** (0.229)	0.681* (0.366)	1.070*** (0.130)	0.348*** (0.094)	0.491*** (0.113)	0.732*** (0.126)
Private	0.553 (0.481)	-0.545*** (0.002)	-0.610* (0.315)	-0.240 (0.173)	-0.441** (0.178)	-0.167 (0.240)
Business	0.742 (0.834)	-0.043 (0.357)	0.290 (0.187)	-0.056 (0.195)	-0.222 (0.198)	0.188 (0.349)
Education	1.579 (1.166)	-2.252*** (0.473)	0.073 (0.492)	-0.580 (0.358)	0.293 (0.284)	0.338 (0.403)
Diplomatic	0.645 (0.541)	0.523 (0.580)	0.550 (0.385)	0.284 (0.280)	0.484 (0.576)	0.258 (0.262)
Government	0.672 (0.706)	0.073 (0.115)	0.120 (0.182)	0.077 (0.079)	-0.103 (0.179)	0.181 (0.235)
Military	-0.029 (0.607)	0.266 (0.271)	0.473 (0.309)	0.234* (0.124)	-0.236 (0.308)	-0.021 (0.271)
Religious	-1.303** (0.553)	-1.274*** (0.087)	-0.444 (0.471)	-0.826*** (0.185)	-0.283 (0.488)	-0.922*** (0.306)
Transport	-0.265 (0.674)	-0.480*** (0.114)	-0.365 (0.338)	-0.010 (0.101)	-0.301 (0.218)	-0.127 (0.253)
Utility	0.088 (0.754)	-0.221 (0.688)	0.933* (0.528)	0.582*** (0.185)	0.033 (0.307)	-0.140 (0.400)
Police	0.108 (0.680)	0.248 (0.173)	-0.063 (0.253)	0.181 (0.244)	-0.677*** (0.196)	-0.283 (0.222)
Constant	-0.944** (0.451)	2.381*** (0.225)	13.117*** (5.028)	-30.544** (12.524)	76.775 (3,311.736)	11.559 (14.810)
Observations	1,032	7,981	9,726	12,144	5,578	7,615
R ²	0.147	0.283	0.288	0.148		0.214
χ^2	119.297***	1,137.031***	1,413.969***	1,028.210***		1085.680***

Significance at the 10% (*), 5% (**), and 1% (***) levels.

Model 2: Middle East and Africa

As one of the most active hotbeds of terrorism today, the Middle East and Africa comprise about 40% of the GTD and have an average claim rate of 10.2%.

Several patterns still stand out, even with the addition of fixed effects and clustered standard errors. The attributes of the attack take center stage in explaining credit-claiming. The use of suicide tactics increase claims, perhaps due to their signaling strength and human capital. Unlike any of the other groups analyzed below or the omnibus regressions above, injuries also inflate the probability of a claim.

One of the mere two target-related findings here is the positive influence of utilities. As will be seen in the case study of Pakistan, attacks on utilities tend to be claimed. Assaults on such locations, typically harmless except for property damage and infrastructural hiccups, may be strategically chosen with the intent of making a spectacle and claiming credit. Furthermore, extremists in this region may be less willing to take responsibility for incidents involving “private” areas, though this finding barely misses the 5% significance level. Since more than a third of attacks in this region take place on such targets, this is an important result. Concerns of public backlash or an attempt to provoke an indiscriminate response from the government may motivate this pattern. (If we are willing to accept the finding on private citizens, then the positive coefficient on diplomatic targets is also meaningful and indicates that “international” attacks are perpetrated with greater intent to reach a wide audience.)

While claim-making tends to increase right after a claimed attack, we find no significant results when it comes to elections.³⁵

It is also worth noting that the counteracting effects of democracy and GDP per capita. More democratic states tend to have higher claim rates in an attempt to exploit the media fervor while the government remains more institutionally constrained in retaliating. However, the overall effect of GDP per capita is negative, though at a deteriorating rate. While GDP per capita may be a tenuous proxy for state capacity, this lends some credence to the idea that state capacity influences terrorists’ willingness to associate themselves with an attack. Moreover, the two opposing forces,

³⁵Somewhat ironically, when doing this analysis on Israel alone, timing with respect to elections has no relationship with claims. Kydd and Walter (2002) clearly go beyond elections in their discussion of spoiler violence, but this result is still odd.

combined with the results of modernization theory (Lipset 1960; Przeworski et al. 2000) suggest that claim rates in the GTD, at least in this region, are not an artifact of wealthy or democratic states being more capable of or willing to record claims.

Model 3: Iraq and Afghanistan

These two countries represent 8,472 observations in the GTD. Unsurprisingly, incidence of attacks spiked after the invasion of the United States into each respective country. In 2002, Iraq has three recorded attacks. In 2003 (the year of the invasion), the number rises to 45, and then spikes to 239 the following year. The number has only increased over time, reaching 1,116 in 2011—just about three attacks per day.

Worth noting is the high coefficient on diplomatic targets, most of which involve the United States. Assaults on American officials and offices are practically international attacks on hard targets that are intended to capture attention abroad. The desire to relay the organization's identity is quite high. Beyond this, it appears that extremists in these countries are highly averse to claiming attacks that endanger civilians; transportation, religious centers, private citizens, and institutions of education are archetypal examples of locations that are largely civilian. Competition is insignificant given that 99.8% of all attacks took place in a competitive environment.

The depressed probability of claim prior to an election and the increased probability right after a claimed attack are starkly prominent here. A brief recollection of elections in Iraq and Afghanistan should make the result on elections somewhat unsurprising.

A large proportion of covariates in this regression are statistically significant, especially with regard to the stated hypotheses. One may believe that the overall large- N analysis presented in Table 10 is driven by these observations. Models 3 and 4 in that table omit these observations.

Model 4: South and Southeast Asia

The home of India, Pakistan, and Afghanistan (among many others), this region is arguably the most salient one to the United States' national security interests.

Strikingly, in almost none of these analyses are governmental, military, or police targets significantly tied to patterns of credit claiming. These three target types are most closely related with the state in the GTD. Meanwhile, religious, private, and education-related targets tend to be tied

to noticeable trends at varying degrees. This suggests that when evaluating their own activity at the attack level, terrorists are far more concerned with public backlash than with state's ability to exact retribution.

Model 5: High Attribution States

While few attacks are explicitly claimed, many more are still attributed to specific organizations based on known behavior or other contextual clues. We can consider prevalence of attributions as a crude proxy for how well a country's terrorist environment is understood. Looking at such nations may be a way of circumventing concerns about under-reporting bias.

This subset of data contains states where attribution rates exceed 70%: Colombia, Sri Lanka, United States, Uganda, Nepal, Spain, and India. The high attribution rates present an opportunity to incorporate group fixed effects, the individual results of which are obviously not presented here.

The use of group fixed effects caused technical issues that prevented the use of clustered or robust fixed effects. Therefore, the statistical results are probably more generous than they are in reality. Even so, the positive effect of democracy is very strong. The spoiling hypothesis is also plausible, as are the forces of outbidding/competition. Quite interesting is the significant negative effect of police targets in this subset of states. In states where law enforcement better understands the terrorist environment, extremists are far less prone to claim attacks that target the police. We cannot be sure whether this result is borne from extremists fearing targeted retaliation or from terrorists assuming that law enforcement will identify the guilty party regardless of claim. Even so, the negative relationship is noteworthy.

Model 6: Democracies

Another potential attempt to circumvent under-reporting bias is to focus on democracies, where we would expect media coverage to be unrestricted. A blunt way to account for this is to focus on the subset of countries with Polity scores of 7 or greater (the criteria used for the democracy dummy throughout this paper).

The effects of suicide, casualties, competition, and elections remain strong, as does the aversion to claiming attacks on religious sites. In other words, the strategies of intimidation, spoiling, and outbidding remain plausible even in this substantially smaller portion of the data.

Appendix B: Correlation in Model 5

Out of potential concern for overly influential sets of observations, Model 5 in Table 10 includes all covariates but removes the four most attack-ridden nations: Iraq, Afghanistan, Pakistan, and India. When using Polity scores to measure democracy, the statistical significance of logged GDP per capita disappears. This may be because when these four countries removed, the correlation between logged GDP per capita and Polity scores are a moderate 0.469. Below, we retest the limited sample, except only including either GDP per capita or Polity score. Both covariates prove to be statistically significant in isolation.

Table 15

	<i>Dependent variable:</i>	
	claimed	
	(1)	(2)
suicide	1.159*** (0.147)	1.252*** (0.143)
nkill	0.009** (0.004)	0.007* (0.004)
nwound	0.007*** (0.002)	0.007*** (0.002)
polity2	0.040*** (0.011)	
polsq	0.016*** (0.002)	
gdp_log		-3.686*** (0.440)
gdpsq		0.236*** (0.026)
comp	0.604*** (0.092)	0.529*** (0.091)
bomb	0.010 (0.067)	0.053 (0.066)
assass	-0.371** (0.170)	-0.411** (0.170)
elect7	-0.561* (0.307)	-0.494 (0.309)
in7	1.062*** (0.069)	1.173*** (0.068)
priv	-0.289** (0.119)	-0.224* (0.118)
biz	0.256** (0.124)	0.333*** (0.124)
edu	0.367 (0.224)	0.283 (0.219)
diplo	0.396** (0.199)	0.347* (0.198)
gov	0.201 (0.124)	0.226* (0.124)
mil	0.002 (0.156)	0.069 (0.152)
relig	-0.252 (0.216)	-0.244 (0.215)
transport	-0.266 (0.172)	-0.153 (0.170)
util	0.136 (0.191)	0.252 (0.192)
police	-0.209 (0.140)	-0.227 (0.141)
Constant	-3.210*** (0.289)	11.544*** (1.792)
Observations	11,159	11,212
R ²	0.272	0.250
χ ² (df = 45)	1,852.286***	1,698.903***

Significance at the 10% (*), 5% (**), and 1% (***) levels.