ABSTRACT

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THE RELATIONSHIP BETWEEN
LEGITIMACY, TERRORIST ATTACKS
AND POLICE

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Scholars often suggest that terrorism – "the threatened or actual use of illegal force and violence to attain a political, economic, religious or social goal through fear, coercion or intimidation" (LaFree & Dugan, 2007, 184) – is a battle of legitimacy. As the most ubiquitous representatives of the government's coercive force, the police should be most susceptible to terrorism stemming from perceptions of illegitimacy. Police are attractive symbolic and strategic targets, and they were victimized in over 12% of terrorist attacks worldwide since 1970. However, empirical research assessing the influence of legitimacy on terrorist attacks, generally, and scholarly attention to terrorist attacks on police are scant. The purpose of this dissertation is to examine the influence of state and police legitimacy and alternative explanations on the proportion of all and only fatal terrorist attacks on police in 82 countries between 1999 and 2008. Data were drawn from several sources, including the Global Terrorism Database and the World Values Survey. Surprisingly, results of

Tobit analyses indicate that police legitimacy, measured by the percentage of the population who have at least some confidence in police, is not significantly related to the proportion of all terrorist attacks on police or the proportion of fatal terrorist attacks on police. State legitimacy was measured by four indicators; only the percentage of the population who would never protest reached significance, lending limited support for this hypothesis. Greater societal schism, the presence of a foreign military and greater economic inequality were consistently significant predictors of higher proportions of terrorist attacks on police. Some measures of violence within a country also were influential, but they were not consistent across models or with expectations. The results of the Tobit analyses were confirmed with Negative Binomial Regression Models using the number of all and only fatal terrorist attacks targeting police as the outcome.

While these results suggest alternative explanations for terrorist attacks targeting police, discounting legitimacy as an explanation for such attacks or terrorism, generally, is premature. Policy implications and avenues for future research are discussed.

THE RELATIONSHIP BETWEEN LEGITIMACY,
TERRORIST ATTACKS AND POLICE

By

Jennifer Catherine Gibbs

Dissertation submitted to the Faculty of the Graduate School of the
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Additionally, my family and friends also were understanding about my time commitments to this dissertation.

As I was packing my house to move on to the next chapter of my life, I had the opportunity to review some of my earlier work; I realize how influential my earlier teachers were on my education. When I entered college, I intended to major in psychology and become a high school guidance counselor – until I took an Introduction to Criminology course taught by Alan Bruce (now at Quinnipiac University). I ended up with a minor in criminology so that I could take more classes with this passionate professor, who I now consider a friend. The mentorship of Tim Ireland, Harry Dammer (now at University of Scranton) and Talia Harmon at Niagara University was incomparable. Talia, especially, spent many late nights helping me fine-tune my master's thesis and encourage me to continue graduate school. Without these scholars behind me, I would not have made it this far.

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Chapter 1: Introduction

On January 4, 1999, reported Islamic militants fired four missiles at a police complex in Pattan, India. One police officer and his wife died as a result of the attack. The family's five-year-old child was seriously injured… (National Consortium for the Study of Terrorism and Responses to Terrorism: Global Terrorism Database, 2010)

January 1, 2005: Approximately 150 members of the Etnocacerista Movement attacked and took over the police station in Andahuaylas, Peru. The perpetrators killed four police officers and took 10 others hostage in the armed intrusion… (National Consortium: Global Terrorism Database, 2010)

January 10, 1999: Eibar, Spain – A Civil Guard policeman was on guard duty when he confronted two individuals who threw a petrol bomb at him… (National Consortium: Global Terrorism Database, 2010)

Immediately after the South Tower collapsed, many NYPD radio frequencies became overwhelmed with transmissions relating to injured, trapped or missing officers. As a result, NYPD radio communications became strained on most channels.… (National Commission on Terrorist Attacks Upon the United States, 2004, p. 309)

Police make attractive targets for some terrorists because they are

representatives of the government's coercive authority, making them accessible

symbolic targets. Some terrorist groups in the United States even have "hit lists"

targeting police officers (Freilich & Chermak, 2009) because police are in a

"brotherhood with the enemy government" (Miller, 2010). Also, as first responders

to emergencies, police are tactical or *strategic* targets for terrorist groups. By

overwhelming or incapacitating law enforcement, they become ineffective in

resolving a terrorist attack, making the incident much bigger and more fatal. Indeed,

The Police Chief called attention to terrorist attacks on police:

> Terrorists target police – both directly and indirectly – because terror
>
> groups view the police officers as instrumentalities of the government
>
> and distinct tools of the group's oppressors. In that sense, law

enforcement is both a tactical and strategic target of terrorists. The

police officers' role in combating terrorism is critical, as they, too, are

victims of such violence as well as the protectors of others.

(Alexander, 2007, ¶2)

Finally, police are often *secondary* targets because they guard other primary targets

(like businesses or government facilities). For example, the New York City Police

Department reported 23 officers killed in the line of duty responding to the September

11, 2001 terrorist attacks (NYPD 9/11 Memorial website, undated) – even though the

police were not directly targeted in these attacks.

Like other forms of violence (e.g., murder) directed toward law enforcement,

terrorist attacks on police are relatively rare, but terrorist victimization of police is

more common than one might expect. One of the most comprehensive terrorism

databases is the Global Terrorism Database (GTD), which may provide insight to the

frequency of attacks on police. The GTD is an incident-level database tracking

terrorist attacks worldwide since 1970, recording events of "the threatened or actual

use of illegal force and violence to attain a political, economic, religious or social

goal through fear, coercion or intimidation" (LaFree & Dugan, 2007, 184).

According to the GTD, over 12% of terrorist attacks worldwide targeted police;

police have been the victims in over 10,000 terrorist incidents since 1970 (National

Consortium for the Study of Terrorism and Responses to Terrorism, 2010). However,

empirical studies of terrorist attacks on police are lacking, which "is surprising

considering the large threat that terrorism poses, especially to law enforcement"

(Freilich & Chermak, 2009, p. 145).

While police face a unique threat from terrorist groups, we know little about their role as targets because empirical studies linking policing to terrorism generally focus on policing strategies to combat terrorism (e.g., Deflem, 2006) or on preparedness for a terrorist attack and organizational change in response to terrorism (e.g., Marks & Sun, 2007), but *not* on police as *targets* of terrorist attacks (but see Deflem, 2011; Deflem & Sutphin, 2006). Further, violence *against* police, generally, is studied far less than violence *by* police.

Importance of Studying Terrorist Attacks on Police

Studying terrorist attacks on police is important for theoretical development, for policy development and for public protection. First, a good theory should have a broad scope, explaining as much of a phenomenon as possible (Akers & Sellers, 2008); any theory attempting to explain terrorism should also be able to explain terrorist attacks on police.

Second, without the benefit of empirical research, policy on police response to terrorism and police safety in terrorist attacks will be based on fear or speculation rather than evidence (see, e.g., Lum et al., 2006, regarding the lack of evidence on counterterrorism policies, generally, and how such policies may be cost-ineffective). Fear for officer safety may impact police decisions when responding to terrorist incidents and this may result in greater-than-necessary use of force, which may undermine public trust,[1] unintentionally encouraging retaliation or other negative outcomes.

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[1] White and colleagues (2008) show that police actions during terrorist events may be related to trust in police – when police make reasonable decisions, the public is inclined to offer their trust.

Finally, as the most accessible symbols of government authority, police are attractive targets of terrorists; as the first line of defense against terrorist attacks in general, understanding how police victimization might incapacitate emergency response is important to adequately protect the public. Should terrorists incapacitate the first line of defense, there is no "Plan B". So, protecting the protectors or at least helping the protectors protect themselves is crucial for the safety of the public. As demonstrated by the 9/11 Commission Report excerpt above, a significant terrorist attack can damage police communication systems and wound those tasked with helping victims and preventing further victimization – and chaos can ensue. When that happens, terrorists win.

Explaining Terrorist Attacks on Police

Several scholars have noted the significance of legitimacy for inhibiting violence – especially political violence (e.g., Gurr, 1970). Terrorism and other political violence, in fact, may be reduced to a battle over legitimacy between a government and its opponents, especially considering one of the defining characteristics of terrorism is a grievance (see LaFree & Ackerman, 2009). Cronin (2009) explains that "terrorist campaigns succeed when groups can convince more powerful actors of the legitimacy of their cause…" (p. 92).

History is ripe with examples of illegitimacy leading to increased terrorist attacks. Police illegitimately using excessive force – or allowing such force – can create a violent backlash, which was the case during the second intifada of the Israeli-Palestinian conflict (Cronin, 2009). Cronin reports:

The uprising began [in late September of 2000] with widespread rioting among Israeli Arabs, blocking streets, looting stores, and assaulting Jewish Israeli citizens. The police opened fire, killing 12 Israeli Arabs and one Palestinian. When two Israeli reservists entered the Palestinian city of Ramallah, they were arrested by the Palestinian Authority police. A mob rushed the police station, then brutally beat the two soldiers to death, throwing their mutilated corpses onto the street…. The Israelis responded with air strikes by helicopter gunships, pummeling the police station into rubble…. A major campaign of suicide attacks and targeted killings was well under way by the next summer. (pp. 54-55)

The Liberation Tigers of Tamil Eelam formed in Sri Lanka in response to police illegitimacy – police killed civilians at the World Tamil Conference – and have specifically targeted police, like in 1990, when they murdered more than 600 officers (Cronin, 2009).

Legitimacy is important for voluntary citizen obedience to government authority and citizen support of the government's rule. Legitimacy leads to many desirable outcomes, including citizens' voluntary obedience to the law (i.e., reduced crime), citizen support for and cooperation with authorities, citizen willingness to follow police directives, and support for empowering authorities. Conversely, illegitimacy leads to many negative consequences, including retaliation against police, possibly serving to de-legitimize a government by attacking its representatives (i.e., the police).

While scholars have suggested the influence of legitimacy on terrorism (e.g., Chalk, 1998; Gurr, 1970), rigorous empirical tests are few and far between. One reason for the scant empirical work on legitimacy and terrorism may be due to the difficulty operationalizing this concept. The next chapter addresses the ambiguous definition of legitimacy and the desirable outcomes produced by legitimacy. In addition to legitimacy, there are several other logical reasons for terrorism and, specifically, attacks on police. To determine what these alternative explanations may be, attacks on police are qualitatively explored in Chapter 3.

Specifically, in Chapter 3 I review the scope of terrorist attacks against the police worldwide, 1999-2008. The nature of terrorist attacks on police is examined in detail for the top ranking countries – those most heavily hit by high frequencies and proportions of terrorist attacks directed toward police. These countries are compared with countries having a low proportion of attacks against police. This approach suggests several plausible explanations for terrorist attacks on police, which are supported by the literature on general terrorism.

Societal schism based on ethnic, religious or racial differences may generate a permanent struggle, leading to attacks on representatives of the government's authority. There is evidence that the presence of a foreign military – especially one of a different religion – increases terrorism (specifically suicide terrorism; Pape, 2006). Terrorist attacks against police may depend on attacks by police against terrorists (Chalk, 1998; LaFree, 2007). Police accessibility may generate opportunity to target police. Chapter 4 reviews the empirical and theoretical background for these other

possible explanations of terrorist attacks against police. Additionally, the specific hypotheses to be tested are summarized in Chapter 4.

I then move into systematic tests of low levels of both police and state legitimacy – as well as each of the other explanations listed above – as explanations for high proportions of fatal and all terrorist attacks targeting police between 1999 and 2008, using a sample of 82 countries and drawing data from several sources (including the World Values Survey and the Global Terrorism Database). Using proportions is preferable to other measures like frequencies because proportions account for attacks on police that may be artificially inflated due to extremely high counts of general terrorist attacks in a country or artificially deflated due to extremely low counts of general terrorism. That is, countries with high or low frequencies of general terrorist attacks likely also will be high or low in attacks targeting police, while proportions of attacks targeting police may be above or below average. Chapter 5 expands on this rationale, describes the data sources used, the variables included and how missing data is handled and discusses the plans for analyses. The results are presented in Chapter 6, and Chapter 7 concludes this dissertation with a discussion of the significance of the results and the limitations of the study.

Chapter 2: Legitimacy

Due to the difficulty in operationalizing legitimacy (LaFree, 1998), many scholars have shied away from empirically examining its predictive value. Studies of police legitimacy have operationalized or referred to this concept as trust (DeBelieck, 2006; Goldsmith, 2005; Hawdon et al., 2003; Reisig et al., 2007; Sunshine & Tyler, 2003b; Tankebe, 2009; but see Hawdon, 2008), obligation to obey the law (Reisig et al., 2007; Reisig & Lloyd, 2009; Sunshine & Tyler, 2003b; Tankebe, 2009), affective feelings toward the police (Hinds, 2007; Sunshine & Tyler, 2003b), and confidence in police (Bennett et al., 2009; Hinds, 2007; Jang et al., 2010; see also Reisig & Lloyd, 2009). In short, there is "no simple path toward police legitimacy" (Herbert, 2006, p. 497).

Because police are representatives of the government's authority, they also draw legitimacy from the state.[2] Herbert (2006) nicely summarized the relationship between the state, the police and the public: "As the most visible reminder of the state's coercive power, the police represent both the majesty and potential tyranny of state authority. This coercive power means that, for many citizens, the police warrant suspicion" (p. 481). Echoing these thoughts, Goldsmith (2005) wrote "in societies in which police are deployed to bolster the political authority of the regime, police will often be used under the guise of the law against political opponents and ethnic minorities" (p. 453). Illegitimate state laws, in turn, create public impressions of illegitimate police, and there is some empirical support for this. Ivkovic (2008) found

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[2] The term "state" as used here refers to a country or nation. Webster's dictionary defines a state as "a politically organized body of people usu[ally] occupying a definite territory [especially] one that is sovereign [or] the political organization of such a body of people" (Merriam-Webster, 1985, p. 1151).

that better governance leads to greater confidence in police, while citizens in countries with low quality governments have lower confidence in their police. Scholars have argued that legitimacy of institutions impacts citizens' perceptions of the institutions' procedural fairness, in a sense, substituting the "missing information" of limited knowledge about an institution's procedures based on attitudes of legitimacy about that institution (Gibson, 1989, 1991; Mondak, 1993). Accordingly, state legitimacy is important to consider when assessing police legitimacy, as police, by definition, enforce the laws designed by the state.

What is Legitimacy?

As "legitimacy" has evolved throughout history, its definition, too, has had several incarnations. Sternberger (1968) describes the etymology of state legitimacy, showing three main advancements. The earliest was the Roman *legitimus*, meaning "lawful, according to law" (Sternberger, 1968, p. 245). In medieval times, *legitimus* referred to conforming to custom or customary procedure. Finally, in 1338, popular consent became part of the definition of legitimacy. While contemporary scholars debate about the meaning and measure of legitimacy, these three topical areas dominate the literature. Summarizing this literature, Beetham (1991, 1993) redefined these categories as *views of legality* (lawful or according to law), *views of justification* (conforming to customary procedure) and *acts of consent* (citizens actively accepting the authority of the government).

Views of legality is Weber's classical view of legitimacy: the predictable rules and laws that the government follows (Gilley, 2009). Here, people know what to expect; laws are not arbitrary (Gilley, 2009). Citizens "trust that institutions

responsible for the implementation of public policies are run and guided by the principles of impartiality and fairness" (Rothstein & Stolle, 2001, p. 7, as cited in Ivkovic, 2008). Levi and colleagues (2009) "find that citizens everywhere are capable of determining whether government is meeting its obligations to them, and they are likely to withdraw their deference and compliance if it is not" (p. 370-371). Adopting this element, some scholars have operationalized legitimacy as confidence in the government, its representatives, or civil servants (Gilley, 2006, 2009). The absence of government corruption also may be an indicator of this element of legitimacy, showing that government officials tend to follow the rules. (See Figure 1.)

INSERT FIGURE 1 ABOUT HERE.

However, this traditional element of legitimacy has been criticized for ignoring morality (Beetham, 1991, 1993; Breitmeier, 2008). Breitmeier (2008) argues "A conception of legitimacy which ignores the weight of morality takes the risk to justify authoritarian political power as legitimate then if the people are convinced of the adequacy of immoral power" (p. 19). This leads to the next component of state legitimacy.

Under the *views of justification* element, citizens believe that the state reflects a shared moral consensus. This component also is referred to as "congruence" in Norway or "vertical social contract" by political philosophers (Gilley, 2009). Kennedy (1998) reminds us that the difference between terrorism and the legitimate actions of a sovereign state is the moral authority of the government in pursuit of its national interests. When citizens perceive that moral authority to be weakened terrorist groups justify their violent behavior as taking the moral high ground – as was

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the case of the 1995 bombing of the Alfred P. Murrah Federal Building in Oklahoma City (Kennedy, 1998). The state failing to adopt the values of citizen groups can be evidenced by mass emigration of particular groups, the number of political prisoners (Gilley, 2006, 2009), genocide, or political discrimination of minority groups. When these are low, views of justification are high. (See Figure 1.)

The third component of state legitimacy is *acts of consent* – conscious citizen actions, obeying the government. Here, citizens actively recognize the government's authority through activities like voting, voluntarily joining the military, paying taxes, deferring to police or reporting crimes to police (Gilley, 2009). (See Figure 1.) Rothstein and Stolle (2001) argue

> it makes no sense to pay your taxes if you think that the tax authorities are discriminating against you or are heavily corrupt. You would not take your dispute to a court if you did not trust the judge to be impartial and to follow the universal rules guaranteeing equality before the law. (p. 10, as cited in Ivkovic, 2008)

In other words, when the state is "legitimate", people are more likely to voluntarily consent to its rules. Consent may be based on whether the government is following clearly established rules or is respecting the shared belief system of the public, demonstrating that each of these three elements may depend on one of the other elements (Beetham, 1993). Accordingly, any complete measure of state legitimacy should recognize all three elements dominating the literature.

While scholars generally focus on one or more of these elements when discussing legitimacy, few have empirically tested whether the full model holds

water. One exception is Gilley (2006, 2009), who created a composite measure of legitimacy using a cross-sectional sample of 72 countries, representing 83% of the world's population. He computed a legitimacy score (ranging from 0-10) for each country and ranked countries according to their legitimacy scores. The legitimacy score incorporated both attitudinal and behavioral measures representing the three sub-types of legitimacy described above (views of legality, views of justification and acts of consent). Gilley finds that Denmark, Norway, the Netherlands and Canada rank highest (with the United States ranking 8th – just behind Sweden) and the Dominican Republic, Armenia, Pakistan and Russia ranked last of the 72 countries included in his study. On average, countries in the West and Asia enjoy higher legitimacy scores than states in Latin America and Eastern Europe, which one might expect given that countries in Latin America and Eastern Europe are commonly viewed as less stable (e.g., the dissolutions of the USSR, Czechoslovakia, and Yugoslavia) than those in the Western or Asian regions. So, Gilley's legitimacy measure is valid on its face. Additionally, his convergent and discriminant validity tests confirm his conceptualization of legitimacy. For example, good governance (measured by the World Bank Governance Indicators) and civil liberties (drawn from Freedom House) were highly correlated with the legitimacy measure, while population size was not (Gilley, 2006). Further, the legitimacy score had a high positive correlation with political stability (drawn from the World Bank), considered an outcome of legitimate states (Gilley, 2006).

While incorporating these three elements is only one – and perhaps the most comprehensive – measure of legitimacy, its impact on important outcomes like

terrorism and, specifically, terrorist attacks on police has yet to be tested. Assessing

the impact of legitimacy on terrorism is important because the literature suggests

there may be a link between legitimacy and terrorism. Gurr (1970) hypothesized that

"people who regard their regimes as legitimate will regard political violence as

unjustified…" (p. 186). This may be the case, given the many positive results of

legitimacy, discussed in the next section.

Causes and Consequences of Legitimacy

Legitimacy has several desirable outcomes, including citizen collaboration

and cooperation with the authorities and support for empowering the authorities, as

well as citizen compliance with the law and consent to authority decisions. The

outcomes of police legitimacy often are discussed in the framework of procedural

justice and defiance, which are briefly reviewed first.

Procedural justice and defiance

Procedural justice is citizen perception of the fair and consistent process by

which criminal justice sanctions are applied (Tyler, 2006). Procedural justice

originated with Thibaut and Walker's (1975, 1978) findings that while a desired

outcome certainly is important to people, the process by which the outcome is

generated is more important than the outcome itself because people believe that fair

procedures generate fair outcomes. As Colbert, Paternoster and Bushway (2002)

explain, "Fair treatment shapes [citizens'] view that authorities are acting not just

with power, but with legitimacy" (p. 1744).

Integrating Tyler's work on procedural justice and the literature on shaming, Sherman's (1993) defiance theory describes public defiance against an unfair sanctioning system. Sherman defines defiance as "the net increase in the prevalence, incidence, or seriousness of future offending against a sanctioning community caused by a proud, shameless reaction to the administration of a criminal justice sanction" (p. 459). According to Sherman's (1993) theory, defiance occurs under four necessary conditions, all of which must be met:

1. The offender defines a criminal sanction as unfair.

2. The offender is poorly bonded to or alienated from the sanctioning agent or the community the agent represents.

3. The offender defines the sanction as stigmatizing and rejecting a person, not a lawbreaking act.

4. The offender denies or refuses to acknowledge the shame the sanction has actually caused him to suffer. (p. 460)[3]

Importantly, Sherman's defiance theory recognizes that people may respond to sanctions and sanctioning agents differently, and this difference is due, in part, to perceptions of legitimacy or fairness.

Procedural justice and defiance are especially relevant here, as they explain *why* legitimacy may influence terrorist attacks on police. According to Tyler (1990), obedience to the law occurs when authorities are viewed as legitimate, which is influenced by treating people with dignity and respect, thereby certifying their full

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[3] See Hussain (2010), who argues that each of these four conditions is met by terrorists.

membership as citizens of the state; this is the impetus for procedural fairness.[4]

Compliance with the law is based on legitimacy (see Figure 2): laws must be

perceived as legitimate for compliance to occur and that perception is based, in part,

on whether people are treated fairly in a procedural sense by authorities (Tyler, 1990,

2006). Conversely, if laws – and the government that creates them and the authorities

who enforce them – are perceived as unfair and illegitimate, people are less likely to

comply or cooperate. In other words, people are more likely to engage in or support

crime and, specifically, terrorism in states with less legitimacy; accordingly, terrorist

groups have more constituency support in less legitimate states. On the other hand,

high legitimacy leads to (1) citizen collaboration and cooperation with authorities and

support for police; and (2) voluntary willingness to obey the law and consent to police

decisions. The evidence supporting each outcome is reviewed next.

INSERT FIGURE 2 ABOUT HERE.

Desirable outcomes of legitimacy

Collaboration, cooperation and support. Legitimacy leads to citizen

collaboration and cooperation with the police, as well as support for empowering

police. Police legitimacy is important for police-community cooperation and

collaboration, and the police cannot effectively combat crime without cooperation

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[4] For more about procedural justice theory, see Tyler (1990) for a discussion of the six components of procedural justice, Tyler and Lind (1992) for the three relational factors, and Blader and Tyler (2003) for the four-component model of procedural justice. One of the key components of procedural justice theory is "voice", which increases the perception of fairness (Tyler, 1990). When people have the opportunity to tell their side of the story, they feel like valued members of the group and feel they have been treated fairly, regardless of the favorability of the outcome. (See Colbert and colleagues (2001) for empirical evidence of the importance of voice at the bail stage of criminal justice proceedings.) Voice may be especially important to the study of terrorism, given the "grievance" that many terrorist groups have – or perceive to have. In states with low legitimacy, the mechanism at work may be that terrorists believe they do not have voice in any government or religious process, which is perceived as unfair or illegitimate, and encourages terrorist attacks on those who deny voice and are unfair (i.e., the police). Of course, this is speculation, since only macro-level factors are examined here.

from the public as crime reporters and witnesses (Goldsmith, 2005). Additionally, the impact of perceptions of legitimacy on public support cannot be understated because terrorist groups, as organizations (Crenshaw, 2001; Dugan & Gibbs, 2008), are potentially competing with the state for support from the same public constituency. McCauley (2006) summarizes:

> …terrorists depend upon their civilian base of sympathizers and supporters. The terrorist apex cannot survive long without cover, information, money, supplies, expertise, and, especially, recruits from lower in the pyramid. …terrorists cannot be beaten so long as they can disappear into and recruit from the pyramid that supports them. (p. 250)

When the public believes the government is legitimate, citizens support the state and its representatives – not terrorists. Terrorist attacks on police, as representatives of a legitimate government, are viewed by the public as unjust, and the public will abhor the terrorist group; in cases of higher state legitimacy, the lack of public support for terrorist attacks against government representatives provides little incentive (unless, of course, such terrorist groups are disinterested in an earthly constituency). For example, this lack of support may have led to the downfall of the Armenian Secret Army for the Liberation of Armenia (ASALA), as they lost the legitimacy awarded to them by their constituents after a botched bombing at the Orly Airport in 1983 that killed many innocent civilians, followed by targeting fellow Armenians and extorting constituents (Dugan et al., 2008).

Alternatively, when the public believes the government is illegitimate, citizens are less supportive of the state and its representatives. At the very least, "When

members of a society begin to doubt the fairness of their political institutions, even if they do not themselves violate laws, they become less enthusiastic agents for the social control of others" (LaFree, 1998, p. 80). Terrorist attacks on police in this instance are viewed as just, terrorist groups are viewed as heroes for attacking the "villainous" police, and terrorist groups have a larger pool of supporters from which to recruit.

There is mixed empirical evidence of the relationship between perceptions of legitimacy and support for authorities. Analyzing data collected from a self-report survey of registered voters in New York City, Sunshine and Tyler (2003a) found that perceptions of procedural justice increased respondents' feelings of moral solidarity with authorities; respondents who felt greater moral solidarity with authorities reported a greater willingness to cooperate with the police, empower the police and comply with the law. Similarly, Reisig and colleagues (2007) found in a nationwide telephone survey of US adults that both legitimacy and distributive justice (fairness of outcome allocation) significantly influenced respondents' reported cooperation with police. Additionally, Levi and colleagues (2009) found respondents' perception that the government treats citizens fairly and treats members of their own ethnic group fairly increases the probability that respondents accept police authority. Using 2005 Afrobarometer survey data, Levi and colleagues (2009) found that the administrative competence of the government (measured as the belief that the government will enforce criminal law, even among top officials, and the belief that the police are not corrupt) and procedural justice (beliefs that the government fairly treats citizens, as well as members of their own ethnic group) increased the likelihood that citizens

would report accepting governmental authority (i.e., authority of the police, the court and the tax department).

However, Tankebe (2009) found that when taking into account citizens' perceptions of police trustworthiness, procedural fairness no longer impacted cooperation with police in Ghana. Moreover, when instrumental factors were included in the model, police effectiveness was the only significant predictor of willingness to cooperate with the police – procedural fairness and trustworthiness of police no longer reached significance. Tankebe explained that procedural fairness may not be related to cooperation with police in the Ghanaian context since "Primordial norms… require police officers at times to prize kinship, ethnic and other considerations … more than adherence to the spirit and letter of police rules that emphasize universalistic criteria of impartiality in dealing with citizens" (2009, p. 1282).

Similarly, the measure of police legitimacy used by Reisig and Lloyd (2009) – two items assessing obligation to obey police, which are outcomes of police legitimacy – did *not* significantly predict Jamaican adolescents' willingness to cooperate with the police. But, this may be due to the legitimacy measure itself, as perceptions of procedural fairness significantly impacted obligation to obey the law (the legitimacy measure) and perceptions of procedural fairness also led to willingness to cooperate with the police. Importantly, Reisig and Lloyd (2009) highlight the potential importance of government legitimacy on suspected outcomes from this process-based literature, and this is especially crucial when examining police legitimacy in emerging democracies – which could describe some of the

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countries experiencing a high proportion of terrorist attacks against police. Perhaps more important than cooperation and support, another suspected outcome of legitimacy is voluntary obedience to the law.

   Compliance with the law and consent to decisions. Following a Weberian tradition, most writers agree that legitimacy encourages a voluntary willingness of the public to obey government directives because citizens believe this authority *ought* to be obeyed (LaFree, 1998; Sherman, 1998; Sunshine & Tyler, 2003b, p. 514; Weber, 1984; see also Tyler & Huo, 2002, p. xiv). Legitimacy induces a sense of obligation to defer to government rules and regulations, bolstering obedience to the law (Levi et al., 2009; Tyler 1990, 2006) and to authorities. Alternatively, when confidence in the system is low, the stigma associated with formal social control is reduced (Hirschfield & Piquero, 2010). Voluntary citizen compliance with the law is crucial to an orderly society, as the alternative means that such behavior must be coerced – usually at great cost. In short, political legitimacy decreases citizen motivation to engage in deviance and increases the effectiveness of social control (LaFree, 1998).

   Motivation to voluntarily comply with the law is different from deterrence (obeying the law due to fear of punishment) (Sunshine & Tyler, 2003b). Indeed, Freeman and colleagues (2006) found in a survey of Australian driving while intoxicated recidivists that those participants who reported lower government legitimacy related to drinking and driving interventions were more likely to report intentions to drive intoxicated in the future. This finding was more robust than participants' perceptions of swift, severe and certain penalties, which were used to

test the deterrence doctrine. In other words, legitimacy may have a greater impact on compliance than does deterrence (see also Murphy, 2004).

Empirical evidence supports the influence of legitimacy in decreasing crime (LaFree, 1998). Studying a sample of 586 New Yorkers in the spring and summer of 2001 (before the terrorist attacks on 9/11), Sunshine and Tyler (2003b) found respondents' perceptions of police legitimacy (19 Likert-response items asking about perceived obligation to obey police, trust in police and emotions about police) directly influenced their reported compliance with the law (e.g., legally parking and disposing of trash, not purchasing stolen goods, refraining from shoplifting, not using drugs).[5] Similarly, results from a United States nationwide telephone survey of 432 adults indicated that legitimacy (as measured by reported trust in the police) was more important to citizen compliance than perceptions of distributive fairness (Reisig et al., 2007).[6] LaFree (1998), too, found that legitimacy of institutions in the United States and US crime rates were inversely related.

Summary

While legitimacy produces many desired outcomes, public perceptions of illegitimacy have negative outcomes – perceptions of illegitimacy have the power to restructure government institutions and practices. For example, the community policing movement – which arguably changed the structure and practices of police

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[5] There may be some overlap with the legitimacy measure and outcomes in this study, as the legitimacy measure includes the respondents' perceived obligation to obey authorities and the outcome measure is compliance with the law.

[6] Reisig and colleagues (2007) rigorously examined the measurement of procedural justice, distributive fairness and legitimacy scales typically used in the "Tylerian literature" (Tankebe, 2009). While in many previous studies police legitimacy is comprised of two scales – obligation to obey and trust in the police – Reisig and colleagues found only trust in the police, *not* obligation to obey items, significantly impacted respondents' reports of both compliance with the law and cooperation with police.

agencies in the United States and created new government agencies – stemmed from a "legitimacy crisis" in policing, arising in the tumultuous 1960s and 1970s (Hawdon, Ryan & Griffin, 2003; Sunshine & Tyler, 2003b). However, Herbert (2006) reminds us

> The quest for police legitimacy will be forever ongoing because the coercive power that officers possess will never be symbolically understood in like fashion across the populace. When an exercise of police power comforts one group of citizens, it may simultaneously alienate another. (p. 484)

Indeed, police can be viewed as heroes or villains, depending on how their constituents perceive police and state legitimacy. The next section applies this distinction to terrorism.

Heroes or Villains? Connection between Legitimacy and Terrorism

Many scholars suggest legitimacy plays a central role in terrorism (e.g., Crenshaw, 1981; Cronin, 2009; Gurr, 1970). "When individuals do not believe that a state's laws are binding or legitimate, they will be less likely to orient their actions in accordance with these laws, and conflict may ensue" (Cook, 2003, p. 112). So, legitimacy is a motivation for violence against the state. Terrorists simultaneously attempt to increase their own legitimacy while decreasing the legitimacy of the state (Cook, 2003). Terrorist organizations with high legitimacy can use it to recruit and to generate sympathy for their cause. According to Cronin (2009), because they are in the weaker position, "terrorist violence seeks to challenge the state on two levels: among its citizens, by creating doubt about the state's ability to protect them from

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harm; and internationally, by undermining traditional notions of national sovereignty" (p. 116).

However, few have empirically tested this assumption, perhaps due to the vague definition of legitimacy and its ambiguous measurement. Cook (2003) summarizes the empirical issues between legitimacy and terrorism:

> Since it is a normative concept, legitimacy … confronts analysts with moral and political issues that defy social scientific measurement. (pp. 109-110) …[A]ttempts have been made to define legitimacy in some of the philosophical literature. Yet, where definitions have been advanced, philosophers seldom address the problem of terrorism. Conversely, when terrorism is examined by philosophers, they seldom deal with the issue of legitimacy. (p. 111)

Despite this challenge, there is some empirical evidence linking terrorism with legitimacy. For example, in a content analysis of the speeches and writings of 22 twentieth century revolutionary leaders, Martin and colleagues (1990) found legitimacy played an important role in justifying violence. Additionally, Hussain (2010) found support for Sherman's defiance theory, indicating legitimacy plays a role in terrorism – at least in Pakistan.

Gurr (1970) defined illegitimacy "in terms of the extent people regard their regimes as improper and deserving of opposition"; in other words, "the polar opposite of legitimacy" (p. 186). When the state or its representatives (i.e., the police) are viewed as illegitimate and deserving of opposition, terrorist violence against these targets may result.

Legitimacy and terrorist attacks on police

The dynamic relationship between the police and terrorism, generally, is complicated. Just as terrorists can be viewed as heroes ("freedom fighters") or villains, so can their opponents: the police. For example, in the United States after the September 11, 2001 terrorist attacks, police were seen by the public as heroes, as they and firefighters were first responders helping victims; some of these first responder heroes were collateral damage when the towers of the World Trade Center fell, while those responsible for these terrorist attacks were considered the villains by the American public. Citizen evaluations of police are related to general terrorism and terrorist threats, as the police are the front line in the response to terrorism. Specifically, general terrorism and threats of terrorism may increase police legitimacy, even if only for a short period of time – this is referred to as the "rally effect" (Jonathan, 2010).

On the other hand, when the government responds to terrorism by creating a repressive police state, police may be viewed by the public as villains and police legitimacy may be reduced through this "high policing" (Bayley & Weisburd, 2009; Brodeur, 2007). Crenshaw (1981) explains the "action-reaction syndrome" that gives rise to terrorist retaliation against the government's excessive force to "squash dissent" (p. 385; see also Cronin, 2009, and Stewart et al., 2008): in short, when members of the public attempt to voice their opinions and are violently repressed by the government's authorities (i.e., the police), the public may react violently and the government and its representatives will lose legitimacy. This relationship is supported empirically. Studying the impact of police legitimacy on violent crime (of

which terrorist violence is a form) at the precinct-level in New York City, Kane (2005) finds that over-policing of violent crime increased violent crime, but only in precincts where structural disadvantage was high. Kane (2005) also notes the reciprocal relationship between violent crime and legitimacy: "police legitimacy may influence violent crime, but violent crime may also influence patterns of police responsiveness either in terms of under policing… or over policing" (p. 487).

Police are lawfully equipped and trained to use force and to restrict citizens' freedoms; when citizens perceive that this authority is applied illegitimately, they may retaliate against the police (Goldsmith, 2005; Martin et al., 2009; Sherman, 1993). This may be especially true when the government becomes more restrictive in the aftermath of a terrorist incident. Increasing police presence ("high policing", Bayley & Weisburd, 2009) may be viewed as increased government force and limiting people's freedoms – in short, more repressive, and repressiveness has been empirically linked to general terrorism (Piazza, 2006). Such excessive use of force – particularly if it is not expected or out of the ordinary – especially in reaction to a protest or other attempt for reform may provoke terrorist retaliation (Crenshaw, 1981; Piazza, 2006).

Not only do repressive police tactics encourage retaliation, but they also may generate sympathy for terrorist groups or causes (Atran, 2003; Crenshaw, 2001; Cronin, 2009). LaFree (2007) explains: "To the extent that government-based counter-terrorist strategies outrage participants or energize a base of potential supporters, such strategies may increase the likelihood of further terrorist strikes" (p. 10) – especially against those engaging in counterterrorism – and the terrorists' odds

for success (Cronin, 2009). In Chalk's (1998) case study of Peru, increasing police investigative and arrest powers by suspending the constitution decreased popular support for the regime. In Spain, police recruitment for "anti-terrorist death squads" targeting the Basque separatist group Euzkadi ta Azkatasuna (ETA) – bypassing the legal system altogether – led to public support for the terrorists, legitimizing their cause (Chalk, 1998). As Chalk (1998) observed:

> [When] the counter-measures initiated by … supposedly liberal democratic parliamentary entities represented a severe departure from accepted constitutional principles of authority and law and order — [they come] dangerously close to transplanting, as Hacker and Wardlaw put it, insurgent terror from "below" with bureaucratised, institutionalised terror from "above". (p. 377)

At the very least, cooperation with and support for the police are diminished when police are viewed as illegitimate. When people are alienated – especially disadvantaged or already marginalized populations – informal methods of social control become more popular than turning to the police for help (Kane, 2005). This, in turn, may lead to increased support for terrorist groups, especially if they can serve as an informal organization of social control, or if they promise to fight for change for these alienated people. Terrorism generally is intended for an audience – whether to create fear in the "enemy" audience or to impress or garner sympathy in a constituency (Asal & Rethemeyer, 2008; Crenshaw, 1981, 2000), and potential constituents are those like-minded others who share in a common goal or opinion – that the government is illegitimate. Constituency support is important; as an

organization, terrorist groups will perish without it or without the potential for new recruits (Crenshaw, 1981; Dugan & Gibbs, 2008; McCauley, 2006). Related, terrorist groups may attempt to gain constituency support by competing with a government that is perceived to be illegitimate. Terrorist groups may provide – or claim to provide – services to the public better than the government. For example, Hamas invests about half of its income on social programs like schools, orphanages and sports clubs to build recruitment pools (Cragin & Daly, 2004; Kushner, 1998); Hezbollah does this, as well. Particularly, the terrorist group may argue that they are better able to protect the public than the government. For instance, when police were viewed as corrupt and inefficient, there was a movement by the citizens of Guerrero, Mexico to police themselves (Johnson, 2008). Indeed, Kane (2005) writes:

> the procedural justice literature… largely argues that when members of marginalized societal subgroups perceive mistreatment by legal authorities in violation of rule of law and procedural justice standards, they will often cease cooperation with authorities and defer to subgroup affiliations in the resolution of conflict…. (p. 475)

This reciprocal relationship is likely between terrorism and legitimacy – especially terrorist attacks on police and police legitimacy. In times of a perceived threat of terrorist attacks, the public supports more stringent counter-terrorism policies (Huddy, Feldman, Taber & Lahav, 2005). This may impact the transparency and accountability of policing systems because law and order may become more important to police agencies than public relations (Jonathan & Weisburd, 2010), reducing police legitimacy. However, while police performance may matter more to

citizens during times of terrorism, the importance of legitimacy is no less critical (Jonathan & Weisburd, 2010). As police legitimacy declines, attacks on police are less likely to be discouraged from the public and the police policies resulting from the terrorist attacks are likely to further affect legitimacy. In other words, police legitimacy is affected by terrorist attacks, just as terrorist attacks on police are affected by police legitimacy. Indeed, the relationship between police legitimacy and terrorism is complicated.

Nevertheless, the literature suggests low legitimacy is likely to increase terrorist attacks on police. Terrorist groups may want to attack a perceived illegitimate government or its military, but these are often impractical targets (perhaps such targets are too difficult to attack or would not garner the attention sought by terrorist groups), so attacks on police may be "spillover" effects (Sandler & Lapan, 1988) because police are more easily accessible than military or government targets and still symbolize the government (Baumann, 2009). Police represent the authority of the government and, as such, attacking police is akin to attacking the state and may serve to de-legitimize a government because the protectors appear to be unable to protect themselves, much less the citizens (Rorie, 2008). Strategically, terrorist groups may try to sabotage the legitimacy of the government or its representatives (Cronin, 2009; LaFree & Dugan, 2004) – specifically, the police – to maintain and expand their constituency and recruitment pool (Crenshaw, 1981; LaFree & Dugan, 2009; McCauley, 2006), given that most terrorist activity is intended to receive attention from some audience (Crenshaw, 1981, 2000). Terrorist attacks may attempt to demonstrate that allegiance to a government is misplaced by the populace, as

police agencies tend to pay more attention to law and order in lieu of individual rights during times of terrorism (McCauley, 2006); terrorist groups may want to mobilize the marginalized or disenfranchised public by showing an audience the "true nature" of a government with which these terrorist groups disagree (Forst, 2007). For example, in the 1940s, the Irgun Zvai Le'umi (National Military Organization or Irgun) attacked symbols of British authority in Palestine – specifically police officers and stations – in an attempt "to make the territory ungovernable, raise the costs of control, and undermine Britain's authority in the region" (Cronin, 2009, p. 84). At the very least, terrorist groups may benefit from "a propaganda gain that demonstrates the government's weakness" (Crenshaw, 2001, p. 14).

Summary

There are several ways illegitimacy leads to terrorist attacks against police. First, illegitimacy generates motivation for terrorist groups, rationalizing their behavior. One of the main justifications for terrorist violence is "the regime's illegitimacy and violence, to which terrorism is the only available response" (Crenshaw, 1981, p. 395). Second, illegitimacy can serve as a recruitment tool, as terrorist groups can mobilize or gain popular support of their constituency by taking advantage of an illegitimate government. Third, illegitimacy or perceived unfairness may prompt retaliation against police in the form of violence. Indeed, in Sri Lanka, the police observed and even took part in the July 1983 anti-Tamil riots, providing the impetus for the Liberation Tigers of Tamil Eelam (LTTE) to band together in response (Arena & Arrigo, 2005; Cronin, 2009). Looking at data from the Global Terrorism Database, terrorist incidents in Sri Lanka were almost non-existent before

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1983; afterward, there was a spike in all terrorist incidents from two incidents in 1982 (the highest count of terrorist incidents before 1983 was three in 1979) to 80 in 1984 to a high of 510 in 1989.[7] Notably, terrorist attacks against police were a sizable proportion of the incidents following the 1983 anti-Tamil riots, reaching about one-quarter of all terrorist targets in 1984 and 1985.[8]

Finally, attacks on police in illegitimate states may be to preserve the terrorists' safe haven or may be a target of locality convenience. In addition to spawning motivation for terrorism and permitting (perhaps only tacitly) recruitment to terrorist organizations, one main outcome of illegitimacy is that the public does not feel an obligation to obey the laws of the state. This implies that a state must use mechanisms other than the voluntary obedience of its citizens (like coercive force) in order to maintain social control. Coercive force, with its necessary surveillance and manpower to ensure public obedience, is expensive and, spread too thinly, leaves much uncovered; even in states where most people voluntarily obey the law most of the time, state agents simply cannot monitor every citizen at all times. Even the threat of state sanction is not very effective, as demonstrated by the deterrence literature (see Chiricos & Waldo, 1970; Geerken & Gove, 1975; Nagin, 1978; Paternoster, 1987; Piquero & Pogarsky, 2002; Pratt et al., 2006; but see Nagin, 1998; Nagin & Paternoster, 1994), especially when the certainty or likelihood of

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[7] The GTD reports relatively fewer terrorist incidents in Sri Lanka in recent years. Fewer than 100 terrorist incidents have been recorded since 1997.

[8] The specific counts in surrounding years are important to point out: police accounted for two of three total terrorist attacks in 1979, neither of the two terrorist incidents in 1981, and one of the two recorded terrorist incidents in 1982 (the GTD shows no other terrorist incidents in other years before 1982.) In 1983, police were targeted in one of eight terrorist incidents, 22 of 80 terrorist incidents in 1984, 25 of 109 terrorist incidents in 1985, 23 of 140 terrorist attacks in 1986, 16 of 119 terrorist attacks in 1987, 47 of 342 terrorist incidents in 1988, 93 of 510 terrorist incidents in 1989, and 20 of 136 attacks in 1990.

punishment is minimal (Paternoster et al., 1985; Tittle, 1969). This gap in state surveillance creates opportunity for terrorist groups to operate with impunity. In other words, less legitimate governments may be less able to provide efficient social control within the state, establishing a safe haven for terrorist groups. The need for illegitimate governments to use coercive force to maintain social control also feeds back into terrorist motivation and recruitment. In addition to creating the opportunity for terrorist groups to exist, illegitimate governments may react to terrorist attacks with repressive force, providing terrorist groups with more justification for their cause and generating sympathy among potential supporters, increasing recruitment and mobilization (Cronin, 2009). For these reasons, I suspect that the proportion of terrorist attacks on police is higher in states where the government and its representatives – namely, the police – are perceived as illegitimate.

Given the little empirical research including legitimacy, prior research focuses on other causes of general terrorism and these alternative explanations suggest that other factors contribute to the perpetration of terrorist attacks against the police. If these other factors also are related to legitimacy, my failure to test for them could lead to erroneous conclusions. To explore what may be driving terrorist attacks against the police, the next chapter reviews the countries with the highest counts and proportions of attacks on police and compares these countries to those with low counts and proportions of attacks on police. Examining these cases will guide possible alternative explanations for terrorist attacks on police, which are reviewed in Chapter 4.

Chapter 3: Applicability of Legitimacy to the Problem of Terrorist Attacks against Police

A problem in need of scholastic attention is terrorist attacks against police. According to the Global Terrorism Database (GTD), police have been targeted by terrorist groups in over 10,000 incidents between 1970 and 2008, comprising more than 12% of terrorism targets. Yet we know little to inform policy or theory because scholarly work on policing and terrorism typically focuses on countering terrorism (Borum & Tilby, 2005; Carter & Carter, 2009; Clarke & Newman, 2007; Deflem, 2006; Innes, 2006; Lum et al., 2006; McGarrell et al., 2007; Weisburd, Feucht, Hakimi, Mock, & Perry, 2009; Weisburd, Jonathan & Perry, 2009), whether the police instead of the military should combat terrorism (Perliger et al., 2009), police preparedness and training (Chermak et al., 2009; Pelfrey, 2007), consequences of police responses to terrorism (Brodeur, 2007; Loader, 2006; Weisburd et al., 2010), organizational change (Nussbaum, 2007), police attitudes about terrorism (Freilich et al., 2009), or public attitudes toward the police (Jonathan, 2010), but rarely on police as victims of terrorism (but see Deflem, 2011; Deflem & Sutphin, 2006). Perhaps one reason why police victimization by terrorist groups is rarely studied is the disagreement about whether attacks on police should be considered terrorism.

At the heart of this debate is whether such attacks occur outside the precepts of International Humanitarian Law (IHL), which guides armed conflicts. IHL suggests civilian casualties should be avoided during armed conflict, which should be directed toward combatants; a hallmark of terrorist activity is violating this rule, as

civilians and non-combatants typically are targeted (Forst, 2009; Hoffman, 2006; Jenkins, 1980). Attacks on police *should* be considered terrorism where police are civilians and, as such, non-combatants. Western countries, like the United States, have police agencies that are separate and distinct from the military; in these countries, attacks on police clearly are attacks on civilians and are in violation of IHL.

Some may argue attacks on police should *not* be considered terrorism because police are not civilians: Police are part of the body of government, and in some (usually more autocratic) countries police are part of the military. For example, the Royal Bahrain Police and the military "are one and the same" (Miller, 2006, p. 67). There, attacks on the police, who are part of the same body as the military, may be considered attacks against combatants and may not violate the precepts of International Humanitarian Law. However, military agencies are considered non-combatants during times of peace and when they are not on-duty (Hull, 2001; National Counterterrorism Center, 2009) – in other words, when they are not actively involved in conflict; the same applies to police, even when they are part of a military body.

Complicating the issue of determining whether police are a civilian body, many countries have multiple policing agencies. In Venezuela, for example, Dirección de los Servicios de Inteligencia y Prevención (Directorate of Intelligence and Prevention Services or DISIP) and Cuerpo Técnico de Policía Judicial (Judicial Technical Police, renamed the National Directorate of Criminal Investigation or CICPC) are the two main national investigative agencies, housed under the Ministry of Interior and Justice (Birkbeck, 2006; Policía Nacional Estará, n.d.). El Cuerpo de

Policía Nacional Bolivariana (CPNB or National Police), responsible for transit systems, was established in 2009 (Policía Nacional Estará, n.d.). Venezuela also has state and municipal level police forces (Birkbeck, 2006). In addition to these civilian policing agencies, Fuerzas Armadas de Cooperación (FAC or National Guard or Armed Forces of Cooperation) is part of the military, housed under the Ministry of Defense (Birkbeck, 2006; Policía Nacional Estará, n.d.). With arrest powers, FAC is responsible for internal security, border protection, and Venezuela's highway system, functioning as a federal police force (Birkbeck, 2006; Policía Nacional Estará, n.d.). Similarly, the Turkish National Police, a civilian force, is responsible for policing urban areas, while the paramilitary Jandarma Genel Komutanlığı (the Gendarmerie) operate in conjunction with the military to secure rural areas, which comprise about 90% of Turkey (Library of Congress, 1995, 2008b). While the Gendarmerie is part of the armed forces, it is housed under the Ministry of Interior during peacetime (Aydin, 2006). Supplementing the Gendarmerie, the Jandarma (the village guards) were created in 1985 to serve as local militias, mainly in southeastern Turkey (Library of Congress, 2008b). Additionally, these agencies change over time, some becoming civilianized and others becoming paramilitary or part of the military. For example, the People's Police of Albania, created in 1945, initially was housed under the Ministry of Interior, but became part of the Armed Forces in April of 1991 (Shkembi, 2006). Since November 1999, the People's Police has been separate from the military (Shkembi, 2006).

A further difficulty resolving the issue of police combatant status in terrorist incidents is that specific police agencies often are not reported. The Global Terrorism

Database (GTD), used in this research, does a remarkable job of separating cases where police were targeted; however, many of the news sources from which the data are drawn often only identify the "police" were victims, neglecting to specify the particular agency.

To compensate for this challenge in determining combatant status, I define police as civilian in countries where they are not part of the military forces and non-combatants, when they are part of the military forces, during times of peace. The nature and extent of terrorist attacks around the world, as reported by the GTD, is summarized in the next section. Although the GTD reports information on terrorist attacks since 1970, the discussion is focused on the ten year period between 1999 and 2008 because the GTD has more detailed information on each incident during this time period, offering more clues on the police agency targeted; in other words, determining whether the agency targeted was noncombatant is more ambiguous in years before this time period.[9]

Looking at Terrorist Attacks on Police

The GTD defines terrorism as "intentional act of violence or threat of violence by a non-state actor" (National Consortium, n.d., ¶10). Two of three additional criteria must be present to be included into the GTD:

1. The violent act was aimed at attaining a political, economic, religious, or social goal;

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[9] While detailed data are available after 1997, the ten year period of 1999-2008 was selected to mirror the analyses; the logic of selecting these years is described in Chapter 5.

2. The violent act included evidence of an intention to coerce, intimidate, or

    convey some other message to a larger audience (or audiences) other than

    the immediate victims; and

3. The violent act was outside the precepts of International Humanitarian Law

    (National Consortium, n.d., ¶11).

Of the 19,337 worldwide terrorist incidents between 1999 and 2008, the GTD reports

2,816 incidents (14.6%) in which the police were targeted.[10] The GTD adopts a

broad definition of police, including prisons and private security. Because the focus

here is on the branch of the government responsible for law enforcement (federal,

state and or local police agencies and officers), 78 cases involving non-police targets

were removed.[11] Further, after reviewing the cases classified as military by the GTD,

89 attacks were determined to be targeting civilian police or gendarmes and,

consequently, included. Accordingly, 2,827 cases of terrorist attacks against police

were used in the descriptions to follow in this chapter.

       The distribution of terrorist attacks against police per country is depicted in

Figure 3. Half of the countries included in the GTD had no terrorist attacks against

the police, and more than one-third (36.5%) had between one and five attacks on

police between 1999 and 2008. On the other hand, a few countries experienced a

great deal of such attacks. The number of terrorist attacks on police by country is

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[10] There are three target fields available in the GTD. Police were considered targeted if they were
listed in any of the target fields.
[11] Of the excluded cases: five cases involved civilian targets with no mention of the police; the coast
guard was targeted in one case; 21 cases targeted the military; six cases involved civilian security (e.g.,
village guards); five cases targeted intelligence officials; prisons or jails were targeted in seven cases;
25 cases involved private security; one attack victimized a civilian translator working with the police;
three cases targeted police informants; in three cases, politicians (e.g., Director of Ministry of Trade)
were targeted, with no mention of police bodyguards – in other words, the politicians seemed to be
coded as police; finally, one case targeted civil servants carrying out road surveys.

listed in Table 1, sorted by the total number of attacks against the police. Not

surprisingly given the turbulence in the country, Iraq accounted for over one-quarter

(26.4%) of the worldwide terrorist attacks against police, with 746 attacks in the 10-

year period under study. India (361 incidents targeting police) and Afghanistan (315

incidents targeting police) each comprised over 10% of all terrorist attacks against

police during this time period. On the other hand, several countries, including

Argentina, Armenia, Canada, and Ecuador did not experience any terrorist attacks

targeted toward police between 1999 and 2008.

INSERT TABLE 1 ABOUT HERE.

INSERT FIGURE 3 ABOUT HERE.

Countries high in terrorist attacks on police: Iraq and India

Over one-third of terrorist attacks on police occurred in two countries: Iraq

and India. Iraq has long had deep-seated ethnic tension between Sunnis, Shiites and

Kurds, but this tension was mitigated (sometimes forcibly) by dictator Saddam

Hussein. After non-compliance with the UN Security Council, which mandated UN

verification inspections that weapons of mass destruction were destroyed, Hussein

was forcibly removed from power in the 2003 US-led invasion of Iraq. Since that

time, Iraq has held elections and adopted a constitution, despite renewed ethnic and

religious friction (Deflem & Sutphin, 2006); US forces remain to provide security and

training to Iraqi security forces.

During his reign, Hussein used a secret police force to eliminate dissidents;

additionally, policing agencies were not entirely separate from the military (Deflem &

Sutphin, 2006). The police force, however, has undergone restructuring since the

overthrow of Hussein. Initially, police were accused of remaining loyal to militia groups and the former regime (Deflem & Sutphin, 2006), requiring a substantial vetting process and additional training. Today, Iraqi police are trained on "modern, democratically based policing methods" (Sweet, 2006b, p. 397) and are divided into federal and local agencies, both housed within the Ministry of Interior (Deflem & Sutphin, 2006). The Federal Police (FP – formerly the Iraqi National Police or INP) are a bridge between the civilian police and the military; as a paramilitary agency, they serve counter-insurgency functions (Deflem & Sutphin, 2006). The Iraqi Police Service (IPS) is responsible for protecting and serving Iraqi citizens. While a separate counterterrorism agency (Iraqi National Counter Terrorism Forces, part of the Iraqi Special Forces) exists, both the INP and IPS often find themselves on the front lines of counterterrorist and counterinsurgency activities (Sweet, 2006b). Unfortunately, corruption remains rampant, there is a lack of communication and authority within and between agencies, and many officers lack commitment to the position (Deflem & Sutphin, 2006; Sweet, 2006b).

Terrorist attacks on police increased beginning in 2003 with 7 attacks (no terrorist attacks on police were recorded by the GTD prior to 2003), peaking at 279 in 2007 and decreasing to 100 incidents in 2008. Almost all (98.9%) of the attacks were "successful", defined as having some tangible effects of the attack, even if the terrorists' larger ideological objectives were not met (CETIS, 2007). Over one quarter (26.8%) of the attacks on the police was suicide attacks. The attack mode of choice was bombings or explosions (66.2%), followed by armed assaults (24.4%). Police were most often attacked on patrol (23.3%), at the police station (15.4%), or at

a checkpoint (9.7%); they also were attacked at their homes (6.3%), while commuting to work (1.6%), or kidnapped (1.2%).

In most (91.4%) cases, the terrorist group is not known; however, al-Qaeda in Iraq claimed responsibility for 4.2% of the terrorist attacks against police – almost half of the claimed incidents. For example, in August 2007, al-Qaeda in Iraq launched a coordinated attack on several police checkpoints and police headquarters in Samarra, a town north of Baghdad (Associated Press, 2007). Dozens of al-Qaeda fighters drove into the city at dusk, then split into several groups, simultaneously attacking the police targets (Associated Press, 2007). Some news reports indicate that as they lose support from other terrorist groups, al-Qaeda is pressured to attack to disrupt the cooperation between Iraq and foreign militaries (Gamel, 2007) to demonstrate they lead the charge against foreign presence. In another al-Qaeda-affiliated attack in March 2007, 14 Iraqi police officers were kidnapped in a province near Baghdad on their commute home from work; they were later found slain. A Sunni group associated with al-Qaeda stated this attack on the predominantly Shiite police force was in response to the alleged police rape of a Sunni woman – an incident in which police were found innocent (Reid, 2007). While these examples suggest terrorist attacks on police in Iraq seem to be driven by retaliation for police actions or cooperation with foreign military forces, Deflem and Sutphin (2006) conclude that insurgents are primarily responsible for targeting police and they attack police to thwart stability and prevent normalization in Iraq. At its core, though, the attacks seem to be themed around ethnic and religious tension against rivals in power.

While Iraq has the highest number of terrorist attacks against police, India ranked second with 361 incidents targeting police between 1999 and 2008. Under British rule during part of the 19th and 20th centuries, India achieved independence through non-violent resistance, led by Mohandas Ghandi. Since that time, there were a series of wars resulting in the division of India into the separate countries of India, Pakistan and Bangladesh (Central Intelligence Agency, 2011c). However, tensions still are present, as indicated by the November 2008 Mumbai attacks, supposedly led by Pakistani terrorists (Central Intelligence Agency, 2011c).

Indian police have a civilian structure, heavily influenced by the British model (Das & Palmiotto, 2005; Hakeem, 2008; Sen, 2006). Although large cities (e.g., New Delhi) have municipal forces and federal policing agencies (i.e., the Central Bureau of Investigation) exist, day-to-day policing largely is the responsibility of the states (Das & Palmiotto, 2005; Hakeem, 2008; Sen, 2006). The state police force is divided into civil and armed police. The civil police are responsible for enforcement of the law and maintenance of order in India; they are uniformed but unarmed – although "[t]hey may carry a short bamboo staff called a *lathi*" (Hakeem, 2008, p. 173, emphasis in original). The Armed Police Battalions, on the other hand, are unlike the gendarmeries found in countries such as France, Italy or Spain in that they do not engage in typical police activities (Das & Palmiotto, 2005). On the contrary, India's armed police are used in times of emergency or for special operations – they do not respond to calls from citizens like the unarmed civil police (Das & Palmiotto, 2005; Hakeem, 2008). In general, the police in India are perceived "to be highly corrupt, politicized, and dysfunctional" (Hakeem, 2008, p. 176).

Terrorist attacks against Indian police are spread relatively evenly between 1999 and 2008, although 2008 saw the highest attacks on police (17.2%). Attacks on police were somewhat higher during May (10.8%), June (10.8%) and August (13.0%) than other months during the year. Similar to Iraq, most attacks (93.6%) were successful, perhaps because the most common attack types were bombings/explosions (51.2%) and armed assaults (39.3%). Unlike Iraq, few (1.1%) were suicide attacks. Police were most often attacked on patrol (15.5%), at the station (15.0%), at a post (6.6%) or at camp (5.0%). Sometimes, police were attacked while at home (2.5%) or kidnapped (2.5%). While the perpetrators are unknown in almost half (44.3%) of the attacks and many terrorist groups admit targeting police, three groups primarily claimed responsibility for attacks on police: Communist Party of India (Maoist) (10.5%) and People's War Group (6.4%), who joined together in 2004 as the Communist Party of India (Maoist) (see GlobalSecurity.org, n.d.); United Liberation Front of Assam (7.5%); and Lashkar-e-Taiba (LeT; 5.5%), a group with possible links to al-Qaeda (Bajoria, 2010).

Terrorism in India seems to stem from disputed territory with Pakistan, like Kashmir, and from a Maoist insurgency (known as the Naxalites) against perceived unjust, exploitive practices of the federal government (Hakeem, 2008). These reasons seem to translate to attacks specifically on police, as well. Over half (52.5%) of terrorist attacks on police in India between 1999 and 2008 are located in the Indian state of Jammu and Kashmir. LeT, a Pakistani-based Islamic group allegedly responsible for the November 2008 Mumbai attacks, fights in the region not only for control of Jammu and Kashmir, but also for Islamic rule in all India (Bajoria, 2010).

Similarly, Hizbul Mujahideen, another separatist group, claimed a fatal 2007 landmine attack against a police minibus, reportedly as part of an effort to make Kashmir an independent Muslim state ("Landmine blast kills three policemen", 2007).

Terrorist groups also attack police in India because they are agents of an often unpopular government; attacks are backlash to brutal state responses to terrorist groups. On its blog, the Communist Party of India (Maoist) suggests police are repressive agents of a corrupt ruling class, nothing more than "armed goons" who attack innocent people (Communist Party of India (Maoist) Central Committee, 2007). The Communist Party of India (Maoist) claims they are fighting for India's poor, promoting a communist state; they seem to target police specifically because they believe the police are collaborating with the wealthy elite ("Bomb blast kills Indian police", 2005), in response to tyrannical policies by the state against terrorist groups (Kumar, 2010; "Maoists kill 75 policemen", 2010), and to collect weapons (BBC News, 2011b). For example, in October 2005 police received a tip, expecting to find evidence documenting Maoist activities; arriving at the location, they were ambushed by this group, who had planted a bomb instead ("Bomb blast kills Indian police", 2005). The news reported this group specifically targets police for "colluding with rich landlords" ("Bomb blast kills Indian police", 2005, ¶7).

As indicated earlier, Iraq and India have the highest number of terrorist attacks against the police. However, both countries also have the highest number of terrorist attacks against any target. As such, the high number of attacks against the police may simply be driven by the high number of terrorist attacks. To control for

this, the next section examines the countries with the highest proportion of terrorist attacks that target police. Proportions will highlight the problem of terrorist attacks against the police by isolating the countries with a great deal of such attacks instead of those countries that may be artificially high because they have high numbers of terrorist attacks against all targets.

A *different story through proportions*

Proportions of terrorist attacks targeted against police tell a slightly different story than counts of such attacks, as proportions account for the total number of terrorist attacks in a country. Figure 4 shows the distribution of the proportion of terrorist attacks against police per country between 1999 and 2008. Similar to the description above, half of the countries had no terrorist attacks against the police; police were victimized in one-tenth of the terrorist attacks in another quarter of the countries included in the GTD. Only one country (Western Sahara) had a proportion greater than 0.5, and it only had one terrorist attack of the 10-year period, an attack that targeted the police.

The proportion of terrorist attacks against police per country also is presented in Table 1 and depicted geographically in Figure 5. The countries with the highest proportions are those countries with the fewest total terrorist attacks. Aside from Western Sahara, the countries with the highest proportions (0.50) are Kazakhstan, Papua New Guinea and Tunisia. Half of the two terrorist attacks in Kazakhstan and Papua New Guinea and half of the four attacks in Tunisia targeted police. On the other hand, some countries with few overall terrorist attacks had no incidents targeting police. Chad had 27 terrorist incidents reported by the GTD, but none were

42

against police. Likewise, Venezuela had 24 total attacks, Cambodia had 15 total

attacks and Ukraine had 12 total attacks, but none of these terrorist incidents were

directed toward police. This demonstrates that while proportions are informative,

countries with relatively few terrorist attacks might not accurately capture the true

proportion had those countries had more attacks.

INSERT FIGURE 4 ABOUT HERE.

INSERT FIGURE 5 ABOUT HERE.

Several countries had a sizable amount of total terrorist attacks, some of

which were aimed at police. The GTD reports 196 terrorist attacks on the United

States, with one attack on police (about one-half of one percent of all attacks), who,

as first responders, seemed to be collateral casualties when a bomb exploded at an

Oregon bank in December 2008.[12] Only about two percent of Israel's 505, Uganda's

132 and Lebanon's 170 total terrorist attacks targeted police. Police were targets in

almost one-fifth of the terrorist attacks in Iraq (with 4,021 total attacks), India (1,862

total attacks) and Algeria (436 total attacks). One-quarter of the 825 terrorist attacks

in Russia were directed against police.

To begin to address *why* police comprise a considerable proportion of attacks

in some countries but not others, countries with a larger number of total terrorist

attacks are examined, as countries with few total terrorist attacks (thus, arguably not

involved in heavy conflict) may lead to a disproportionate explanation of terrorist

attacks on police. I consider five terrorist attacks per year to be a large number,

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[12] The GTD does not include police as a target of the September 11, 2001 terrorist attacks on the United States, as they were not directly targeted. As first responders, police can be secondary targets of terrorist attacks, even if they are not mentioned in the target field of the GTD. That said, the 9/11 attacks were not typical terrorist attacks; while hundreds of people were injured or killed, the proportion of police casualties was smaller than that of other targets.

totaling 50 total attacks during the time period under study. Accordingly, the nature

of the conflict in countries with 50 or more total terrorist attacks between 1999-2008

with a large (0.20 or higher) proportion of attacks against police is briefly addressed

in the next section.

Terrorist Attacks on Police in "Heavily-Hit" Countries

Table 2 summarizes key characteristics of the countries with a large

proportion of terrorist attacks against police. Macedonia, Georgia, Russia,

Afghanistan and Algeria make up the top five heavily hit countries – those countries

with at least 50 total terrorist attacks and 20% targeting police. Each country is

addressed below.

INSERT TABLE 2 ABOUT HERE.

Macedonia

Macedonia has the highest proportion of terrorist attacks directed against

police. Of the 87 total attacks in Macedonia, 39.1% target police, and these attacks

seem to stem from conflict with ethnic Albanians (Rubin, 2001). As background,

Macedonia was part of the former Yugoslavia, achieving its independence September

8, 1991. At the last census in 2002, the majority (64.2%) of the population is ethnic

Macedonian, but about one-third are ethnic minorities, predominantly (25.2%)

Albanians (Central Intelligence Agency, 2011e). Tensions between the ethnic

Albanian minority and the dominant Macedonians have existed since Macedonian

independence, when the Albanian minority unsuccessfully sought their own

independent territory (BBC News, 2011a). With the Balkan Wars in the mid to late

1990s, Kosovo Albanians temporarily sought refuge in Macedonia; shortly thereafter,

Albanian insurgencies for rights and autonomy in Macedonia began. NATO became militarily involved in 2001 with the goal of disarming the Albanian rebels (NATO, 2004; Rubin, 2001); the European Union followed in 2003, providing training and support to the Macedonia police (European Union at United Nations, 2003; NATO, 2004).

The Macedonian police are a national civil force, housed under the Ministry of Internal Affairs (Stojanovski & Klajdžiev, 2006). The force is divided into municipalities and the city of Skopje, and police are responsible for maintaining law and order, securing the border, traffic control and, of course, the protection of people and property (Stojanovski & Klajdžiev, 2006). Uniformed police are predominantly ethnic Macedonian, although the force is becoming more diverse, with a growing proportion of ethnic Albanians (2.7% in 1992 to 6.6% in 2002) joining the ranks (Stojanovski & Klajdžiev, 2006). One branch of the police, the Special Police Unit, a multi-ethnic unit made up of Macedonians and Albanians, is tasked with counter-terrorism (as are some units of the Macedonian National Army). While having a special police unit does not necessarily make the police combatants, perhaps it makes them more attractive retaliatory targets. The GTD, however, does not distinguish terrorist attacks against the Special Police Unit separately from attacks on police, in general.

Most (97.1%) terrorist attacks against the Macedonian police were "successful" at causing some damage, meaning bombs detonated or property was destroyed. The majority of the attacks on police were armed assaults (61.8%) or facility/infrastructure attacks (23.5%). Terrorist groups also attacked police through

one bombing, two kidnappings, and two unarmed assaults. Most often, police were

attacked at checkpoints (52.9%), on their posts (11.8%) or on patrol (2.9%) or the

station was attacked (8.8%). In some instances, police were murdered or police were

attacked when responding to other crises, like on November 11, 2001, when militants

seized a village, taking the citizens hostage. Police engaged with the militants, whose

focus turned to the officers, and consequently three officers were killed and two were

injured (National Consortium, 2010).

The group responsible for most (73.5%) of the terrorist attacks against police

was the National Liberation Army ("UCK", following the Albanian initials), founded

to promote equal rights and to encourage a separate territory for ethnic Albanian

minorities (Rubin, 2001). UCK was disbanded under the Ohrid peace deal of August

13, 2001, became a formal political party (the Democratic Union for Integration), and

joined the government shortly thereafter (Partos, 2003). The Albanian National

Army (Albanian initials are "ASKh") and the Army of the Republic of Ilirida also

attacked Macedonian police (5.9% and 2.9%, respectively). More extreme than

UCK, AKSh is a separatist group seeking territory for ethnic Albanians (Partos,

2003); Ilirida has a similar goal to partition Macedonia for a separate Albanian

territory (Ordanoski, 2002). Groups attacking police were unknown in 17.6% of the

incidents.

Attacks on both police and military are to gain territory for the ethnic

Albanian minority living in Macedonia. In one incident, a police convoy was

attacked on its way to create a police presence in the village of Brest, preventing the

rebel groups from holding the territory; the government was building two police

stations in the area (Gall, 2001a). According to news reports, villagers blame police

for the fighting: "It's usual that when the police come, the shooting starts…. While

there were no police, there was no shooting. Then they came, and the shooting

started" (Gall, 2001a, ¶14). While their main goals focus around sovereign territory

for ethnic Albanians, groups specifically target police seemingly because of

repressive actions on the part of the police – police actions stemming from unpopular

government policies. In fact, during the 2001 NATO-led peace talks, ethnic Albanian

groups specifically asked for representation in local police forces – initially a point of

contention with the government (Gall, 2001b). An UCK commander intimated that

the ethnic Albanians living in Macedonia were afraid of the police, saying "The

civilians feel safer with us here" (Gall, 2001b, ¶3).

Georgia

The country with the second highest proportion of terrorist attacks on police is

Georgia. Georgia gained its independence on April 9, 1991, during the breakup of

the Union of Soviet Socialist Republics (USSR). This was followed by unrest,

namely ethnic conflict with the regions of Abkhazia and South Ossetia, whose

residents attempted to secede from Georgia (Cotter, 1999). With the breakup of the

Soviet Union, the police became independent, as well; this and issues of corruption

led to restructuring of the Ministry of Internal Affairs police division and reforms in

policing agencies in 2005 – namely, decentralization and demilitarization,

establishment of regional municipal police, and shrinking the police force to match

European personnel standards (Glonti, 2006; Ministry of Internal Affairs of Georgia,

2011). Additionally, the National Gendarmerie was formed to assist police (Glonti,

2006), and investment in training and modernized equipment led to increases in public perception of the police (Ministry of Internal Affairs of Georgia, 2011). Nevertheless, over one-quarter (26.2%) of Georgia's 65 terrorist attacks between 1999 and 2008 were aimed at police.

Most (94.1%) of the terrorist attacks against police were successful. Terrorist groups most often (70.6%) used bombings/explosions to attack police. Police also were the victims of armed assaults (23.5%) and one assassination. Almost half of the attacks (47.l%) were attacks on a police station. Typically, targets were not killed (70.6%) or wounded (47.1%). In fact, when targets were killed, no more than five fatalities occurred per attack. In only one attack, twenty victims were wounded; one to six victims were wounded in the remaining 47.0% of attacks. The perpetrator is unknown in the majority of attacks (58.8%). Not surprisingly given the ethnic-nationalist conflict in Georgia, South Ossetian Separatists claimed responsibility for 35.3% of the attacks on police and the Abkhazian Separatists claimed responsibility for one attack.

According to separatist groups, they attack in retaliation for government actions (Thompson Financial News, 2008) and to maintain and expand what they consider their territory. Georgian officials reported to the media that separatist groups warned police to withdraw so that these groups can occupy more of the region: "Ossetians threatened to attack[] Georgian police positions south of Akhalgori.… They want to extend the area of their occupation… they are trying to provoke a clash between Georgian and Ossetian forces" (AFP, 2008a, ¶2-3). In one such incident in November of 2008, two Georgian policemen were killed while on

patrol in a village near South Ossetia; three more were wounded by a remote-controlled bomb – ambushed when responding to the earlier incident (AFP, 2008b). In response to the police killings, a South Ossetian official reported that a villager had been killed by Georgian sniper fire the previous week (AFP, 2008b). Another South Ossetian Separatist leader claimed they are fighting "the illegal presence of armed formations on the territory of South Ossetia and on its borders" (Thompson Financial News, 2008, ¶7). From their description, it seems that police are considered such an illegal armed presence.

Russia

Following Georgia, Russia ranked third highest. With the dissolution of the USSR, the Russian Federation ("Russia") became independent on August 24, 1991. Since independence, Russians have had greater freedom, which has contributed to growing separatist movements, primarily from the Chechen Republic (Beck & Robertson, 2006; Bhattacharji, 2010). Additionally, Russia continues to battle a rising crime rate, which doubled between 1988 and 2001, and government (especially police) corruption (Beck & Robertson, 2006).

The police responsibilities in Russia are divided between the federal government and the provinces/localities. The main police force in the country is referred to as the *militsiya* even though it is not a militia or military force in the traditional sense; it operates solely as a civilian police force, housed under the Ministry of the Interior and administered at federal, regional and local levels (Beck & Robertson, 2006). Crime control is only one mission of the police; "Under all regimes, the police force's main task was to maintain the government's rule over an

ethnically diverse population spread over large geographical areas. Instead of serving

the people, the militia [sic] always sought to keep them submissive" (Roudik, 2008,

p. 139-140). And, as mentioned above, corruption is rampant (Taylor, 2006). Police

evaluations are based on statistics, namely the percentage of crimes solved by police,

and individual officers must solve more cases each year (Roudik, 2008).

Accordingly, the *militsiya* has been accused of ignoring reports of crimes difficult to

solve, planting evidence on innocent people to easily "solve" crimes, and even

inventing fictitious crimes solved (Roudik, 2008). Police brutality and misconduct is

widely recognized as a problem (Davis et al., 2004; Taylor, 2006), but the extent is

unknown as there are no reliable data (Roudik, 2008). Nevertheless, Gerber and

Mendelson (2008) conclude the Russian police are predatory in that their activities

are "devoted to the personal enrichment and self-preservation of the police

themselves rather than the protection of the public or the systematic repression of

subordinate groups…., motivated primarily by the interests of the police

themselves…" (p. 2). Given this description, it comes as no surprise that of the 825

terrorist attacks in Russia, one-quarter (25.1%) victimized police.

Most attacks on police were directed against the *militsiya*, generally, but a

small percentage (8.2%) of those attacks was aimed specifically at paramilitary

forces, namely the Federal Security Service (FSB – Federal'naya Sluzhba

Bezopasnosti) and the Otryad Militsii Osobogo Naznacheniya (OMON). Similar to

the National Security Agency in the United States, Russia's FSB has the main

responsibility for counterintelligence and counterterrorism, as well as some law

enforcement duties ("Federal Security Service", n.d.); but the FSB has been criticized

for retaining KGB practices, like those violating human rights (Taylor, 2006). Somewhat similar to SWAT in the United States, OMON is the Special Designation Militia Detachments of the *militsiya*, dealing with larger security matters, such as counterterrorism and riot control (Beck & Robertson, 2006).

Interestingly, more than half (51.2%) of terrorist attacks on Russian police occurred during the summer months of June, July and August. Almost all (95.7%) terrorist attacks against Russian police were successful. While these attacks had at least some damage, no one was killed in 42.5% of the attacks. In fact, 45.4% of the incidents had three or fewer fatalities, and, at most, 47 were killed in one incident. Similarly, more than one-third (36.7%) of the incidents had no casualties, with about another third (36.6%) having fewer than three victims wounded. The few fatalities and casualties are unexpected, considering that most attacks were armed assaults (46.9%) or bombings/explosions (41.4%). The most common (31.5%) way terrorists attacked police was while police were in their vehicles – namely, on patrol, transporting people, or in a convoy. Police also were attacked in their stations (14.0%) or at a post or checkpoint (10.2%). A notable percent (8.7%) of police were attacked in their homes.

In most (56.0%) terrorist attacks against police, the group responsible is unknown; however, 41.5% of the attacks against police were claimed by Chechen separatists, a Muslim ethnic group residing in the North Caucasus region of Russia motivated to gain independence from Russia (Bhattacharji, 2010). This is not surprising, given the human rights violations by police in that region (Taylor, 2006). According to news reports, the Chechens have "pledged war against police in North

Caucasus", claiming the police "collaborate with Russian occupiers" (Bullough, 2006, ¶4). As an example of this "war against police", in one incident a Chechen separatist suicide bomber drove a car into a police convoy, killing a high-ranking police official (Bullough, 2006).

Afghanistan

After the Soviet Union-supported government fell in 1992 following more than a decade of communist rule, several mujahedeen (Muslim fighter) parties came together to govern Afghanistan ("Afghanistan", n.d.; Murray, 2006a). This was short-lived, as the Taliban claimed power in 1996, only to be removed by a United States-supported coalition of Afghanis ("Afghanistan", n.d.; "Background notes: Afghanistan", 2010; Murray, 2006a). In cooperation with 40 other countries, the United States has been militarily involved (mission termed Operation Enduring Freedom) since 2001 in an attempt to eradicate al-Qaeda. Additionally, NATO's International Security Assistance Force (ISAF) has been assisting with the training of police and security forces in Afghanistan, helping to stabilize the government and the country's borders ("Background notes: Afghanistan", 2010; Murray, 2006a).

Given the historical turmoil in Afghanistan, an effective civilian police force was lacking (Murray, 2006a; Wilder, 2007). For example, under the repressive Taliban rule, the Vice and Virtue Police strictly enforced religious codes, such as forbidding women to work, attend school or be on the streets without a male guardian – violation of which led to torture, imprisonment and execution (Deflem, 2011; Murray, 2006a). However, reform efforts have been underway since 2002, helping to create an operational Afghan National Police (ANP) force – a civilian agency housed

under the Ministry of Interior Affairs, modeled after European police (Deflem, 2011; Murray, 2006a; Wilder, 2007). Nevertheless, the ANP faces a significant threat from the 2005 resurgence of the Taliban in southwestern Afghanistan and from the view of citizens that the police remain corrupt (Deflem, 2011; Wilder, 2007). As evidence in support of this perceived corruption, President Karzai bypassed the merit-based selection process of police leaders, appointing, among others, 14 who had failed the police exams (Wilder, 2007). More broadly, police officials have been known to collect salaries of nonexistent officers (Deflem, 2011), accept bribery and violate human rights (Wilder, 2007). Additionally, the ANP has little accountability and there have been reports of inefficient vetting of officers, so those who are opposed to the government easily infiltrate police ranks; this has resulted in criminals within the police force, committing "theft, kidnapping, extortion and drug trafficking" (Wilder, 2007, p. 1). This perceived widespread corruption erodes not only police legitimacy, but the legitimacy of the government, as well (Wilder, 2007).

Considering this inefficient and corrupt policing environment, it is not surprising that more than one-fifth (22.1%) of Afghanistan's 1,426 total attacks targeted police between 1999 and 2008. Most (96.5%) attacks on police were successful, resulting in some damage, but 79.1% had five or fewer fatalities. (The deadliest attack had 36 fatalities.) Suicide attacks made up a larger portion (16.8%) of attacks on police than in the other "top five" countries (where suicide attacks typically hover around 5% of attacks on police). Most offenders attacking police used bombs or explosive devices (45.7%) or armed assaults (36.8%), although some offenders preferred unarmed assaults (6%), assassinations (4.8%), hostage taking

(4.7%) or facility attacks (1.9%). Police were most often attacked in transit – either their vehicles were attacked (13.3%), a roadside bomb was detonated as police passed (10.5%), or they were on patrol (4.4%) – or a post/checkpoint was attacked (25.0%). In about one-tenth of attacks, a police station (9.5%) or academy (1.3%) was targeted. Police were ambushed in 5.7% of the incidents, and, in some cases, were attacked at home (2.5%) or in their barracks (1.0%). In 4.4% of incidents, police were kidnapped. While rare, police also were attacked while guarding other targets (1.0%) and while responding to incidents (3.2%).

The Taliban claimed responsibility for most (69.8%) of the attacks; 28.6% of the attacks on police remain unclaimed. Deflem (2011) finds that terrorist attacks by the Taliban in particular have been directed away from military targets to the civilian police, as the police are more vulnerable targets in their small stations. Despite the presence of NATO and US/Allied troops, interestingly, only four attacks on police (1.3%) occurred in the presence of the military. Some argue that the police are being used as "cannon fodder" to draw out the Taliban, as they have lower salaries and are easier to replace than the military (Wilder, 2007). Deflem (2011) explains that police are a "preferred target" of the Taliban to disrupt the democratization process because without an effective civilian police force, the state cannot "truly lay claim to a legitimate and effective monopoly of force" (p. 121). He adds: "Taliban attack Afghan's new system of policing to bring about a destabilization of society" (Deflem, 2011, p. 119) – especially a society led by a US-backed President Karzai (Goldwert, 2007). Taliban attacks on police can be especially deadly, like the one in June 2007. A suicide bomber attempted to board a bus carrying police officers and instructors

and exploded when police tried to stop him from climbing the steps; this attack in Kabul killed 35 and wounded 50 people (Baker & Safi, 2007; Goldwert, 2007). While claiming the attack, a Taliban spokesman told the media, "This is part of our ongoing ambush operations…. The more we kill foreigners and Americans, the more we will kill Afghan forces who are working as their slaves" (Baker & Safi, 2007, ¶5).

Algeria

Algeria has been described as "a nation at war with itself" (Sweet, 2006a, p. 14). Like the other "top five" countries, Algeria has had a tumultuous history. Formerly under French rule, terrorism was a tool used by Algerians to gain independence from white minority rule (Sweet, 2006a). In recent years, Algeria has struggled with an Islamic uprising, after the army voided the 1991 elections where Islamic fundamentalists won 42% of the vote (Library of Congress, 2008a; Sweet, 2006a). After declaring a one-year state of emergency, the military has dominated the state government of Algeria since its candidate won the 1999 elections (Library of Congress, 2008a; Sweet, 2006a). Accordingly, conflict in Algeria tends to be between Islamic extremists against the military and police (Sweet, 2006a).

The main policing agencies in Algeria were created in 1962: the Gendarmerie Nationale, housed under the Ministry of National Defense, and the Surete Nationale, resembling the French system is housed under the Ministry of the Interior (Library of Congress, 2008a). The Gendarmerie Nationale is responsible for rural areas, while

the Surete Nationale polices the cities (Sweet, 2006a).[13] Not very popular, police

agencies have been accused of corruption and human rights abuses (Sweet, 2006a).

About one-fifth (19.8%) of the 436 terrorist attacks in Algeria targeted police.

Almost all (97.7%) terrorist attacks on police were successful in that some damage

was caused. While two of the deadliest terrorist attacks claimed 30 and 44 lives,

similar to the other "top 5" countries, incidents where police were targeted involved

few fatalities, with most (74.3%) incidents having two or fewer fatalities. Terrorists

were most likely to attack police in armed assaults (52.3%) or with bombs/explosions

(38.4%) than unarmed assaults (3.5%), assassinations (3.5%) or hijackings (1.2%).

Police often were attacks on their "home turf", with 11.6% of attacks focused on

police stations, 5.8% on officers' homes, 2.3% on officer barracks, and 1.2% on the

academy. In one August 2008 incident, a suicide bomber supposedly affiliated with

al-Qaeda killed more than 43 people when he drove a car into a police station, where

recruits had gathered to register for training classes (Associated Press, 2008). This

attack followed two days after another where police were escorting a military official.

In that incident, the officers were beheaded and their uniforms and guns were stolen

(Associated Press, 2008). Police were ambushed in over one-tenth (10.5%) of

terrorist attacks and attacked frequently while on patrol (9.3%); police also were shot

(22.1%) by terrorists or terrorists detonated a roadside bomb as police passed (9.3%).

While most (65.1%) attacks went unclaimed, Salafist Group for Preaching and

Fighting (GSPC) and Al-Qa-ida in the Lands of the Islamic Maghreb (AQLIM) were

responsible for 19.8% and 10.5%, respectively, of the attacks on police. Founded in

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[13] Interestingly, in January of 1997 the Prime Minister legitimized militias, tasked with assisting the police but permitted to operate outside the legal limits of the police (Sweet, 2006a).

1996, GSPC is an Islamic fundamentalist group aiming to overthrow the Algerian government to create an Islamic state (BBC News, 2003). In 2007, GSPC renamed itself AQLIM to align itself with al-Qaeda, strengthening its goals and broadening them to include westernized targets (BBC News, 2009; Hansen & Vriens, 2009). They target police and military institutions to show the inefficiency of state security forces. After a suicide truck attack on a police station killing two people, AQLIM released a statement saying "This proved the failure of the futile military and political attempts of the apostates and their Crusader masters to stop such blessed (suicide) operations" (Sedarat, 2008, ¶3).

Contrasting the "Top Five" with the "Bottom Ten"

While police in the top five countries seem to be targets in the conflict with separatist and religious groups seeking their own territory or complete government takeover, this conflict plus a rapidly changing regime does not seem to be the case for the majority of the "bottom ten" countries. United States, Democratic Republic of the Congo, Burma, Israel, Uganda, Lebanon, Great Britain, Angola, Burundi, and Greece all have more than 50 total terrorist attacks, but attacks directed toward police are relatively rare, comprising less than five percent of the total attacks in each country. While there is some ethnic or religious conflict in many of these bottom ten countries, none of these countries has experienced rapid regime change like the top five have. The US and Great Britain have had relatively stable governments for over two hundred years and Greece has not been involved in any major conflicts following World War II. The main source of conflict in Burma was a repressive regime refusing to transition power to a democratically elected government and Israel is

clashing with Arab countries over territory, but neither is experiencing a rapidly changing regime coupled with ethnic or religious conflict. Ugandan officials have been accused of many human rights violations and there is much ethnic conflict, but the governmental regime has been relatively stable. While Lebanon was involved in a lengthy civil war through 1990, the government has been somewhat stable through most of the time period under study; the main source of conflict was with other countries (namely, Israel and Syria) whose militaries were on Lebanese soil. The exceptions include the Democratic Republic of the Congo and Angola, characterized by civil war and ethnic conflict throughout the time period under study, and Burundi, engaged in ethnic violence between Hutu and Tutsi people after the prime minister was assassinated in 1993. Burundi has been relatively stable since a 2003 power-sharing agreement between the Hutu and Tutsi.

Summary

The top five countries seem to be qualitatively different from most of the bottom ten and the evidence suggests a changing regime coupled with ethnic or religious tension between minority groups and the group in power is the root of terrorist attacks on police. Put succinctly, there seems to be a lack of governmental legitimacy, and terrorist groups are targeting representatives of the government's coercive authority: the police. Comparing Gilley's assessment of state legitimacy (presented in Chapter 2) with the "top five" and "bottom ten" countries, countries lower in state legitimacy seem to be in the "top five" while countries higher in state legitimacy seem to be in the "bottom ten". Macedonia (ranked 66 of 72), Georgia (ranked 68 of 72) and Russia (ranked last) have the lowest state legitimacy scores;

Algeria fairs somewhat better, ranking 48 (of 72). (Afghanistan is not included in his sample.) On the other hand, the United States (ranked 8 of 72) and Great Britain (ranked 18 of 72) have higher legitimacy scores; Greece (ranked 35 of 72) and Uganda (ranked 39 of 72) have mid-legitimacy rankings. (Legitimacy rankings were not given for Democratic Republic of the Congo, Burma, Israel, Lebanon, Angola, and Burundi, as these countries were not in Gilley's sample.) Indeed, the most legitimate countries (i.e., Denmark, Norway, Netherlands, Finland, Sweden) have few or no terrorist attacks against any target.

However, legitimacy does not seem to be the only explanation for terrorist attacks against the police. Societal schism and the presence of a foreign military also seem to play a role. The next chapter reviews these and other explanations alternative to legitimacy that might account for why some countries (i.e., Macedonia, Georgia, Russia, Afghanistan and Algeria) have a high proportion of terrorist attacks against police while others (like the United States, Great Britain, Greece and Burma) do not.

Chapter 4: Alternative Explanations for Terrorist

Attacks on Police

As outlined in the previous chapters, there are several reasons to suspect legitimacy impacts the proportion of terrorist attacks against police. In this chapter, I review other possible explanations for terrorist attacks on police, drawing from the data summarized in Chapter 3 and reviewing the literature on terrorism, generally. While these may be alternative explanations, if true they do not preclude a legitimacy effect.

I begin by exploring the possibility of societal schism as a factor contributing to terrorist attacks on police, followed by the cooperation with foreign security forces. Of course, terrorist attacks against police may be reciprocal – that is, terrorists could attack police in retaliation for attacks on them by police – and, police may be targets of terrorists because they are representatives of the government's coercive authority (i.e., there is opportunity to attack police) – both of which are explored.

Societal Schism

Ethnic, religious or racial conflict within a country is important because societal schism may impact terrorist attacks against police. Minority groups (i.e., those groups with disproportionately less power), generally, are less satisfied with the police than members of dominant groups, perhaps because police treat minority group members differently or at least minority group members perceive such discriminatory treatment (Weitzer & Tuch, 2004). Additionally, minority group members may have less positive views of the state than members of dominant groups. Drakos and Gofas

(2006) argue "Repressive treatment of, and discrimination against, ethnic minority groups in terms of political under-representation can lead to ethno-political rebellion and motivate terrorist activity" (p. 77). While Drakos and Gofas (2006) found no evidence supporting this in transnational terrorist incidents (against any target), repressive treatment of minority populations may play a role in the disproportionate targeting of police in terrorist attacks because they are responsible for enforcing the policies of the state – including those policies that may be deemed repressive.

Beyond repressive treatment of minority groups, friction between different groups in society – especially minority groups with a dominant group holding governmental power – can lead to grievances. The evidence presented in Chapter 3 suggests societal schism may impact terrorist attacks against police. The top three countries (i.e., Macedonia, Georgia and Russia) seem to have the same story: tied to the former Soviet Union or Yugoslavia, these are relatively newly independent states where the nature of conflict is between the reigning government and ethnic minority separatist groups, who comprise the bulk of terrorist attacks against police. Afghanistan, too, had ties to the former Soviet Union and recently has experienced drastic regime changes. Instead of ethnic nationalist groups, the terrorist groups claiming responsibility for a large portion of terrorist attacks against the police are religious (Islamist) extremists. Like Afghanistan, the Algerian government has had a tumultuous past and has been confronted by religious (Islamist) opposition groups vying for complete government power.

Perhaps schism from a desire to create a separate nation based on ethnicity or religion may explain terrorist attacks against police. However, other countries

achieving independence in the 1990's or 2000s or separating along ethnic lines did

not experience high proportions of terrorist attacks against police like the "top five"

countries did. In the Slovak Republic, Eritrea and the Czech Republic, all

independent in 1993, police were *not* targets in any of the two, four or five

(respectively) total terrorist attacks. (See Table 1.) The Slovak Republic and the

Czech Republic peacefully dissolved Czechoslovakia, but Eritrea continues to

struggle with Ethiopia, from which it separated in 1991, over border issues (Central

Intelligence Agency, 2011a). Other former USSR countries all gained independence

in 1991 and do not seem to experience high proportions of terrorist attacks against

police (none of the four terrorist attacks were against police in Armenia and Belarus,

none of the two in Estonia and Moldova, none of the five in Latvia, police were

targets in only one of the two attacks in Kazakhstan, two of the eight attacks in

Azerbaijan, one of sixteen in Kyrgyzstan, two of thirteen in Tajikistan, two of fifteen

in Uzbekistan, none of twelve in Ukraine, and there were no recorded terrorist attacks

against any target in Lithuania and Turkmenistan), nor do former Yugoslav countries

(police targets account for two of 26 attacks in Bosnia and Herzegovina, 14 of 135 in

Kosovo, one of four in Serbia, none of the five in Croatia, and were not the target of

the only attack in Montenegro and Slovenia). However, several of these countries are

continuously engaged in religious or ethnic conflict (e.g., Armenia with Azerbaijan

over an ethnic Armenian populated territory in Azerbaijan; Russian troops are

stationed in eastern Moldova to support its majority Slavic population; Kyrgyzstan

and Tajikistan both have poor interethnic relations; Islamic extremists are present in

Uzbekistan; the interethnic conflict in Kosovo and Serbia primarily involves ethnic

Albanians). With the exception of Kosovo (police were targets in 10% of the 135 terrorist attacks), these countries have very few terrorist attacks against *any* targets.

Religious, ethnic or racial conflict may play a role, but it is unlikely the only or necessary factor leading to terrorist attacks on police or even terrorism in general. While India and Northern Ireland, both ripe with religious friction, experience quite a bit of terrorism, including high proportions of attacks targeting police (0.19 and 0.17, respectively), Nigeria also has religious friction (between Muslims and Christians) but a relatively lower proportion of terrorist attacks against police (0.08 – police were targets in 19 of 230 attacks). Similarly, Sri Lanka, known for its ethnic tension between the dominant Sinhalese and the Tamil minority (the goal of the Liberation Tigers of Tamil Eelam is to secede), and Indonesia, with its ethnic and religious conflict, both have over 300 terrorist attacks with a moderate proportion of terrorist attacks targeting police (0.13 and 0.14, respectively). But Ethiopia, also involved in ethnic conflict with Oromo separatists, is relatively free from terrorism (police were targets in two of 35 attacks).[14]

Additionally, the "bottom ten" countries experience societal schism. Israel and Lebanon are well known for religious tensions, as is Great Britain (with Northern Ireland). Democratic Republic of the Congo (Kinshasa) and Burundi are both characterized by ethnic turmoil between the Tutsis and Hutus. The United States is ripe with racial tension. Thus, this anecdotal evidence suggests that for every country

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[14] Perhaps racial tension instead of ethnic or religious conflict is the element of Societal Schism that more clearly leads to terrorist attacks against the police. The Dominican Republic and Zimbabwe have a large amount of racial tension. Police in the Dominican Republic are said to target people of darker skin color for deportation (Human Rights Watch, 2002). Similarly, after a long period of white rule, the (numerical) majority black Zimbabweans targeted the (numerical) minority white land owners (BBC News, n.d.). But the Dominican Republic has no recorded terrorist attacks against any target (1999-2008), and police are targets in two of 14 terrorist attacks in Zimbabwe.

with societal schism and terrorism, there is another country with conflict but without

terrorist attacks against police. This is depicted in Figure 6, which compares the

proportion of terrorist attacks against police in countries known to have high societal

schism. This figure demonstrates that divided countries vary greatly in the proportion

of attacks that target police. Perhaps something else is at play.

INSERT FIGURE 6 ABOUT HERE.

Presence of Foreign Security

Somewhat related to the permanent struggle discussed in the section above is

the presence of a foreign army, especially if that army is of a different religion. This

was the case of the League of Nations Mandate, giving Britain rule of Palestine in the

1930s; with British troops and police on Palestinian soil, the Jewish Irgun specifically

targeted police and other symbols of the predominantly Christian British authority

(Cronin, 2009). Today, Afghanistan and Iraq both have high proportions of terrorist

attacks against police (Afghanistan is in the "top five" and Iraq ranks seventh

highest). Both have foreign armies on their soil – armies of a different religion,

offering anecdotal support to this hypothesis. The key, though, seems to be the

presence of foreign troops.

There is some empirical support, as well. For example, studying all 315

suicide attacks worldwide between 1980 and 2003, Pape (2006) found that suicide

attacks increased when a territory had a foreign military on its soil – not because of

Islamic militancy, as is commonly believed. Pape concluded:

> what nearly all suicide terrorist attacks have in common is a specific secular
>
> and strategic goal: to compel modern democracies to withdraw military forces

from territory that the terrorists consider to be their homeland. Religion is

rarely the root cause, although it is often used as a tool by terrorist

organizations in recruiting and in other efforts in service of the broader

strategic objective" (p. 4).

Pakistan data presented by Hussain (2010) showed that suicide attacks, in

general, increased beginning in 2001 – the beginning of the US-led invasion of

Afghanistan, assisted by Pakistan – which he interpreted as discrediting Pape's theory

of military occupation, as a foreign democracy was not occupying Pakistan at the

time the attacks began to increase. However, the Pakistani government was

cooperating with a foreign military – the United States. Hussain suggested the

increase in suicide terrorism in recent years is in defiance of government policies.

One latent function of Pakistan's cooperation with the US is the backlash it

created, bringing the wrath of the Taliban to Pakistan (Hussain, 2010). Indeed,

Hussain (2010) observed that terrorist attacks against government targets (i.e., police

and military) in Pakistan increased after 9/11, suggesting a reaction to government

policies or an attempt to destabilize the government. However, when the targets were

disaggregated, there was little change in the percentage of police targeted before

(10.02%) and after (10.66%) the US-led invasion of Afghanistan.

Lebanon is another country with foreign military on its soil, where Syrian

troops were stationed through most of the time period under study. However, while

Lebanon has a great deal of terrorism, it experiences few attacks targeting police.

Similar to societal schism, there seems to be examples of countries supporting and discrediting this hypothesis. Perhaps cooperation with foreign militaries is less important than specific state actions against terrorist groups.

Reciprocity of Attacks

Police actions may affect terrorist attacks on police. Specifically, police counterterrorism strategies may compel terrorist organizations to retaliate, to attempt removing the police obstacles or to free a captured comrade (Crenshaw, 2001; Cronin, 2009; Deflem & Sutphin, 2006). However, we know little about this relationship across countries. There is large variability in responses to terrorism both across nations and within nations over time, but the influence of arrests for terrorist offenses on terrorist attacks against police is difficult to test cross-nationally, given the paucity of comparative police data. In many countries, researchers are unable to gather detailed arrest data or official data on terrorism (LaFree & Dugan, 2004), let alone arrest data for terrorism.[15] Open sources of terrorism data generally include only the terrorism incident, not the arrest information (Hussain, 2010). Some countries, like the United Kingdom, release terrorism-related arrest statistics (Home Office, 2010); these publicly-available data often are limited to westernized countries and more recent years. Collecting data on many countries for cross-national research is a challenge, so studies of the impact of arrests on terrorism have focused on single countries.

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[15] Terrorists may be more likely to retaliate against state actions that are more severe than arrest (i.e., death of a terrorist leader). However, sanctions more serious than arrest typically are not meted out by the police.

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For example, LaFree and colleagues (2009) studied counterterrorist (including two criminal justice-related) interventions in Northern Ireland. Only one of the strategies had a deterrent effect; the two criminal justice responses actually led to a backlash. "Internment" – detaining suspected terrorists – and "Criminalization/ Ulsterization" – treating detained terrorist suspects as criminals instead of political prisoners – both increased terrorist attacks.[16] Similarly, Hussain (2010), focusing specifically on Pakistan, addressed whether general terrorism is, in part, caused by police actions. Looking at police arrests of terrorists in the Punjab province of Pakistan between 1990 and 2009, he found that arrests actually increased terrorist incidents against all targets – but this increase caused by arrests decays over time. Taken together, the evidence suggests police actions may lead to terrorist retaliation.

Increased Opportunity

Related to police actions is opportunity, which also may play a role in terrorist attacks against police (Crenshaw, 2001). Some areas are very under-policed, while in others officers are seen daily by citizens. Just as citizens are the most ubiquitous and frequent targets of terrorists, perhaps the greater the number and accessibility of police lead to more terrorist attacks against them.

South Asian countries, for example, have lower officers per capita and fewer police facilities, meaning there are fewer police targets. So, we would expect to find fewer terrorist attacks targeting police. However, these countries tend to have a great deal of terrorist attacks against police. (See Table 3.) Afghanistan, with somewhere

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[16] This could be due to the decreased legitimacy of the government, as many non-terrorists were detained without trial during internment and several detained suspects died during a hunger strike, making the government look cruel (LaFree et al., 2009).

between 50,000 to 170,000 officers (or a police-to-population ratio of 1:164 to 1:560; Murray, 2006a) is a "top five" country; Nepal (with about 60,000 officers or a police-to-population ratio of approximately 1:489; Nepal Police, 2010), Sri Lanka (with 38,472 officers in 2002 or a police-to-population ratio of about 1:509; Vincentnathan, 2006), Pakistan (having approximately 286,000 officers in 2003 or a police-to-population ratio of about 1:537; Haye, 2006) and Bangladesh (with about 109,000 police personnel or a police-to-population ratio of about 1:1,238; Bin Kashem, 2006) experience a moderate proportion of terrorist attacks against police (0.19, 0.13, 0.11 and 0.08, respectively). Bhutan has only about 3,417 police personnel (Jafa, 2006) or a police-to-population ratio of 1:626 and has no terrorist attacks against the police; however, Bhutan recorded only four terrorist attacks against any target between 1999 and 2008.

INSERT TABLE 3 ABOUT HERE.

Police in westernized countries are very accessible to the public. Yet, these states tend to have lower terrorist attacks targeting police. For example, the United States – with over one million police personnel in 2008 or a police-to-population ratio of 1:280 (Federal Bureau of Investigation, 2009) – and Great Britain – England and Wales having 127,267 police personnel or officer-to-population ratio of 1:409 in 2002 (Rowe, 2006) – are in the "bottom ten". Canada has approximately 60,000 police officers, which is an officer-to-population ratio of about 1:562 (Murray, 2006b), and Canada has very few (*n*=16) terrorist incidents between 1999 and 2008, with no attacks against police.

These data suggest that more police per population leads to fewer terrorist attacks against the police, which is counter to the opportunity hypothesis. And, the top five and bottom ten countries both have a wide range of police per capita. The top five countries range from a low of about one officer for every 574 Afghanis to a high of about one officer per 131 Russians. The bottom ten have a similar range, with a low of about one officer per 1,282 people in Uganda to a high of about one officer per 205 Greeks. Both the top five and bottom ten countries include countries with a high police per population ratio and those with a low police per population ratio.

Summary

Each of the possible explanations discussed thus far seem plausible, but anecdotal evidence and previous research offer mixed evidence for each. Societal schism is a logical explanation for generating terroristic grievance against the police, who may tacitly allow or explicitly encourage discrimination; while several countries fit this explanation, several others do not, suggesting something else is at play. State cooperation with foreign militaries occupying their soil, while also creating terrorist enemies, can lead to a backlash from citizens surrounded by the presence of unpopular militaries and police who cooperate with such militaries. Overly repressive or discriminatory state and police responses or misuse of force (e.g., assassinations or torture of terrorists) may provoke retaliation in the form of further attacks – and the retaliation may be supported or at least not discouraged by the public, who generally frown upon the killing of civilians, either by the government or terrorists. Even terrorist arrests by police may lead to an increase in retaliatory terrorist attacks. Opportunity may be a factor, but citizens are far more ubiquitous

and will compel the government to change its policies more quickly than the police in most countries; additionally, opportunity does not explain the underlying grievance generating the terrorist incident. Accordingly, I have six hypotheses, which are defined below.

Hypotheses

The overarching research question is whether legitimacy impacts terrorist attacks and fatal terrorist attacks focusing on police. The following hypotheses address this question more specifically.

H_1: Police legitimacy is negatively related to terrorist attacks on police and fatal terrorist attacks on police; that is, terrorist attacks and fatal terrorist attacks on police are disproportionately more common in states with low police legitimacy.

Because police legitimacy also is based on how their employing agency, the government, is perceived, the second hypothesis focuses on the relationship between state legitimacy and attacks on police. Specifically:

H_2: State legitimacy is negatively related to terrorist attacks on police and fatal terrorist attacks on police (i.e., terrorists take advantage of less legitimate governments).

Other plausible explanations for terrorist attacks and fatal attacks against police exist, as outlined in this chapter. Empirically accounting for each is important.[17]

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[17] Unfortunately, I am unable to test whether terrorist attacks are in response to counterterrorism policies, as the comparative data available on police responses to terrorism are limited to only a few countries included in this sample.

H_3: Societal schism is positively related to terrorist attacks on police and fatal attacks on police; that is, the greater the societal divide, the disproportionately more common terrorist attacks and fatal attacks on police.

H_4: Terrorist attacks against police and fatal terrorist attacks against the police are disproportionately more common in states that have on their soil a foreign military.

H_5: Terrorist attacks against police and fatal attacks on police are disproportionately more common when terrorists have more opportunity to attack police.

Finally, recognizing that these other explanations may be subsumed under legitimacy:

H_6: Legitimacy mediates the effect of these other explanations.

The present study will assess these hypotheses. The next chapter will describe the methods used to assess the impact of legitimacy and these alternative explanations on the proportion of terrorist attacks against police.

Chapter 5: Data and Methods

The purpose of this dissertation is to examine the influence of legitimacy and other factors on terrorist attacks and fatal terrorist attacks targeting police. To do so, a cross-section of data from countries measured over a 10-year span is examined. This chapter describes the sample of countries, introduces the data sources, describes important variables, and outlines the plans for analyses.

Operationalizing Terrorist Attacks against the Police

The outcomes of interest are operationalized as the proportion of total terrorist attacks that targeted police and the proportion of fatal terrorist attacks that targeted the police. Using these measures, I am able to better assess why a country with active terrorism is disproportionately selecting to target police compared to other countries. This approach is advantageous to other measures (e.g., frequencies) because these variables are insensitive to the overall number of terrorist attacks. In other words, a country with a high number of terrorist attacks will likely also have a high number of attacks that target police; similarly, a country with a high number of fatal terrorist attacks probably will have a high number of fatal attacks on police. However, the proportion of attacks that target police might be below average. Despite this advantage, those countries with a low frequency of attacks will have arbitrarily high or low proportions of attacks against the police. To account for this limitation, count models that control of the total number of attacks also are run to check the robustness of the findings.

The sample consists of 82 countries, listed in Table 4. This is a convenience sample; countries are included because they have data available on most variables of interest. Also because terrorist attacks against police are rare, I have constructed a cross-sectional dataset that covers a wide period of time: 1999-2008. While this approach captures more variation of terrorist attacks on police, it introduces possible instability in the primary independent variables that could lead to measurement error and simultaneity. Have said that, legitimacy appears to be relatively stable over time. (See Appendix A for detailed analyses.)

INSERT TABLE 4 ABOUT HERE.

Four of the "top five" high proportion countries are included in the sample; data were not available for Afghanistan. Unfortunately, only three of the "bottom ten" countries are included (the United States, Great Britain – represented as the United Kingdom, and Uganda), as information was unavailable on several variables for Democratic Republic of the Congo, Burma, Israel, Lebanon, Angola, Burundi, and Greece.

Data Sources

Data were drawn from several sources, including the Global Terrorism Database, the World Values Survey, Integrated Network for Societal Conflict Research, Minorities at Risk Project, the World Bank's World Development Indicators, the CIA World Factbook, the Correlates of War Project, the World Health Organization, Amnesty International, Transparency International, and other sources. After discussing the advantages and drawbacks of using each data source in this

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section, the following section will describe the details of how each variable was operationalized.

Global Terrorism Database

The dependent variables – the proportion of terrorist attacks directed against police and the proportion of fatal terrorist attacks targeting police – are drawn from the Global Terrorism Database (GTD). The GTD is compiled by the National Consortium for the Study of Terrorism and Responses to Terrorism (START), based at the University of Maryland, College Park. Originally collected by Pinkerton Global Intelligence Services (PGIS), the GTD uses a broad definition of terrorism: "the threatened or actual use of illegal force and violence to attain a political, economic, religious or social goal through fear, coercion or intimidation" (LaFree & Dugan, 2007, 184). This definition guides the application of the selection criteria. Specifically, for inclusion in the GTD, an incident must satisfy three criteria outlined in the GTD codebook:

> (1) The incident must be intentional – the result of a conscious calculation on the part of a perpetrator.
>
> (2) The incident must entail some level of violence or threat of violence – including property violence, as well as violence against people.
>
> (3) The perpetrators of the incident must [be] sub-national actors. This database does not include acts of state terrorism.
>
> IN ADDITION, at least two of the following three criteria must be present for an incident to be included in the GTD:

- The act must be aimed at attaining a political, economic, religious, or social goal.[…]

- There must be evidence of an intention to coerce, intimidate, or convey some other message to a larger audience (or audiences) than the immediate victims.[…]

- The action must be outside the context of legitimate warfare activities. That is, the act must be outside the parameters permitted by international humanitarian law (particularly the prohibition against deliberately targeting civilians or non-combatants). (p. 5; emphasis removed)

The GTD includes data on terrorist incidents, both international and domestic, including but not limited to the date and location, type of target and number wounded or killed during the incident (LaFree & Dugan, 2007; National Consortium, 2008).

Like any dataset, the data, overall, have potential limitations. One potential problem is missing cases due to unreported events. An inherent problem with using open source information is that the data are more likely to include the most newsworthy events (LaFree & Dugan, 2007). However, terrorists typically seek public attention for their actions and terrorist attacks on police are those activities that "shock the conscience", increasing the likelihood that both terrorist attacks in general and specifically attacks on police will indeed be reported events. Studying other crimes (e.g., burglary) using media sources would severely undercount the true number of incidents, but terrorism is unique in that terrorist groups want the public to be aware of their attacks. Groups involved in terrorism are interested in media

attention, as a terrorist incident typically is "designed to send messages to outsiders" (Damphousse & Smith, 1998, p. 209). Also, because policework is not as clandestine as, say, military operations, this limitation should be less important – at least for the numerator – because governments are less hesitant to release information about police to news media. Further, using *fatal* terrorist attacks – which are more sensational than nonfatal terrorist attacks, more likely to be reported in detail by the media and more likely to be included in the GTD – in addition to fatal and nonfatal attacks provides a check of the results.

Despite these limitations, there are several advantages to using an event database to study terrorism and the GTD data are preferred to other open source terrorism databases (LaFree & Dugan, 2007), especially when trying to capture the rare event of terrorism and, specifically, terrorist attacks on police. First, several other data sources (e.g., U.S. Department of State, International Terrorism: Attributes of Terrorist Events or "ITERATE") have been restricted to only international terrorist incidents. [18] LaFree and Dugan (2007) looked at eight other sources of data on terrorism, largely from private companies assessing the dangerousness of other countries. A major limitation of these other datasets on terrorist activity was the lack of information on domestic attacks – those attacks by members of the country under attack without any foreign involvement in the attack. In other words, domestic terrorism events were missing from other datasets and, as a consequence, a large part

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[18] The ITERATE dataset also does not separate police targets. The dataset does contain a qualitative file where each incident is described in detail; each incident could be reviewed to isolate terrorist attacks on police. While ITERATE is similar to the GTD (see Enders et al. (2011) for a recent comparison of the two datasets) in that they are both incident-level and contain many of the same terrorist events, the GTD provides an added convenience of separating target types, which is advantageous in the present study.

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of the nature of terrorism also was missing. Similarly, Hamm (1998) points out that "incidents of domestic terrorism are especially susceptible to legal and bureaucratic ambiguities, and their proportional unreported rate probably exceeds that of index crimes" (p. 67). Indeed, the GTD is an improvement over other terrorism databases because the GTD collects information on both intra- and international terrorism.

However, the RAND Database of Worldwide Terrorism Incidents (RDWTI), formerly the RAND-MIPT Terrorism Incident Database, began to include data on both domestic and international terrorist events in 1998 and is available through 2008 (2009 for some countries), also encompassing the time period of interest here. The GTD is preferred to this dataset because the definition of terrorism used in the GTD is very broad, erring on the side of inclusiveness yet having controls to help insure that events fitting the definition and criteria discussed above are included.[19] That said, a search of the RDWTI found 6,278 terrorist incidents where the police were targeted worldwide between 1999 and 2008, compared to the 2,827 recorded in the GTD. GTD data originally were collected by a private business, and as such PGIS was not subject to government influence like other databases – a trend continuing today. For example, while RAND uses strict criteria, it is under pressure to include ambiguous attacks in Iraq that are less likely to be terrorist-related. Indeed, 4,112 (65%) of the attacks on police recorded by RDWTI occurred in Iraq, while the GTD counted only 746. Without Iraq (which is not included in the present sample, anyway), the number of attacks on police is similar (2116 in RDWTI compared with 2,081 in GTD). However, because GTD provides more fields of information than that available in the

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[19] At times, there is not enough information in the news source to discern whether an incident meets the criteria.

publicly-available version of RDWTI, I am better able to clean the GTD data, so it is preferable over RDWTI. Overall, then, the GTD is the most comprehensive database on terrorism events worldwide and these are the best data to use for studying terrorist attacks on police.

World Values Survey

Police legitimacy and part of the state legitimacy measures are drawn from the World Values Survey (WVS). The WVS, partnered with the European Values Survey (EVS), is a non-profit network of scholars assessing the social and political opinions of people around the globe. Beginning in 1981 and through 2007, the WVS and the EVS have administered 5 waves of surveys. The WVS surveys contain many of the same questions over time and across countries, translated to the respondent's language, and are administered face-to-face, usually in the respondent's home, to respondents of at least 18 years of age. The survey question translations have been adjusted appropriately to consider any differences in meaning across countries (Esmer, 2004).

Random probability sampling is used; WVS claims it takes a representative sample of at least 1,000 respondents from each country under study. (See Table 5 for the number of respondents from each country during the survey waves.) While 1,000 survey participants may miss small segments of citizens, especially for countries with very large populations (like China), the WVS is the best measure of citizens' perceptions available for the most countries.[20] According to the WVS brochure

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[20] The WVS data are available online and were downloaded from the WVS website. The official WVS 5-wave aggregate dataset covering 1981 through 2008 was downloaded in SPSS format from the WVS website March 12, 2010. (As of June 2, 2011, there were no updates to the datasets available on the

posted on the organization's website (www.worldvaluessurvey.org), almost 90

percent of the world's population in 97 countries has been represented in these

individual-level data as of 2007.[21]

<div align="center">INSERT TABLE 5 ABOUT HERE.</div>

Each wave includes many of the same questions, but all questions are not

asked in all countries in every survey wave. In other words, respondents in some

countries are asked questions in one wave but not another. Limiting the data to only

one wave would exclude many countries, decreasing an already small sample size.

While a ten-year span is covered and people's opinions may change over time,

evidence presented in Appendix A suggests that most of the variables of interest here

are relatively stable over time. Accordingly, the latest two waves (1999-2004 and

2005-2008) were incorporated here to increase the sample size. The specific year the

survey was administered in each country is listed in Table 6.

<div align="center">INSERT TABLE 6 ABOUT HERE.</div>

Integrated Network for Societal Conflict Research

Data on forcibly displaced populations from specific countries (part of the

state legitimacy measure) and regime type (a control variable) were collected from

the website for the Integrated Network for Societal Conflict Research (INSCR)

WVS website.) Because the EVS was not part of the fifth (2005) wave of the WVS at the time of the download, the 4-wave WVS/EVS aggregate dataset covering 1981 through 2000 also was downloaded in SPSS format from the WVS website. The 4-wave WVS/EVS aggregate file then was merged into the 5-wave WVS aggregate file to include the EVS, following the merging process described by Diez-Medrano (2009).

[21] The most recent wave (2005-2008) included 56 countries, and the previous wave (1999-2004) included 68 countries, 31 of which overlap. Of the latest two waves, 11 countries were excluded from the present sample because the questionnaire items relevant to this study were not asked or because data were unavailable for these countries on several variables of interest. The 11 excluded countries are Andorra, Hong Kong, Iraq, Israel, Malta, Montenegro, Nigeria, Puerto Rico, Saudi Arabia, Singapore, and Taiwan. After excluding these 11 countries, 82 countries remain.

(http://www.systemicpeace.org/inscr/inscr.htm). INSCR is the forum for the

distribution of data collected by the Center for Systemic Peace and other

organizations. INSCR provides data on several state dimensions, using open source

data and ensuring accuracy of the data by cross-checking information with other

available data sources. INSCR includes states with 500,000 or more population in

2008,[22] so it currently tracks data on 163 states.

INSCR distributes data on forcibly displaced populations between 1964 and

2008, focusing on independent countries with a population of at least 500,000 people.

These annual data are collected by the U.S. Committee for Refugees and Immigrants

World Refugee Survey series and (since 2006) from the Internal Displacement

Monitoring Centre, providing information on the number of forcibly displaced people

from source and in host countries. The data on forcibly displaced populations were

downloaded from the INSCR website on March 13, 2010. To correspond with the

data collected from the WVS, data were collected for the same country-year listed in

Table 6.

INSCR also houses the POLITY IV Project, which reports regime type in

countries with populations of at least 500,000 around the world, 1800-2009.

According to its website, regime type is assessed annually through six measures of

"key qualities of executive recruitment, constraints on executive authority, and

political competition" (http://www.systemicpeace.org/polity/polity4.htm, ¶2). These

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[22] As of June 29, 2011, INSCR is tracking countries with populations of at least 500,000 in 2010, now following 164 states.

data were collected from the INSCR website on March 13, 2010.[23] See Table 6 for

the specific country-year data were collected.

Minorities at Risk

Data on societal schism were collected from the Minorities at Risk (MAR)

Project. The MAR Project, housed at the University of Maryland, gathers

information on politically-active ethnic groups in countries with a population of

500,000 or more. Minority ethnic groups included in the MAR must include at least

100,000 people or account for 1% of a country's population because they must have

"the mobilization potential to influence central state politics in a meaningful way"

(Asal & Pate, 2005, p. 29). Additionally, the group must be politically significant in

relation to the state. Asal and Pate (2005) explain the two criteria of political

significance: (1) "The group collectively suffers, or benefits from, systematic

discriminatory treatment vis-à-vis other groups in a society; and, (2) The group is the

basis for political mobilization and collective action in defense or promotion of its

self-defined interests" (p. 29).

A major drawback of these data is that MAR does not guarantee that all

countries meeting the definitional criteria above are included. Additionally, the MAR

codebook explains that MAR "does not make claims regarding the

comprehensiveness of the dataset. That is, there are ethnopolitical groups that meet

the above criteria and are not included in the dataset" (p. 3). While this is a

limitation, this is the best international discrimination data available.

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[23] Data are copyrighted by Center for Systemic Peace.

Notably, MAR ranks the annual level of political and economic discrimination experienced by each group. Discrimination data are available from 1950-2003 by country; the discrimination data also are available by group from 2004-2006.[24] However, the recent years (2004-2006) include more variables from which to build the schism scale. These data were downloaded from the MAR website (http://www.cidcm.umd.edu/mar/data.asp) on April 24, 2010 and data from the most recent year available (2006) was used (although there was no change between 2004 and 2006).

ICPSR #21283: International Military Intervention, 1989-2005

Presence of a foreign military, an alternative explanation for terrorist attacks against police, is drawn from Kisangani & Pickering's ICPSR Study #21282: International Military Intervention, 1989-2005 (IMI). The presence of a foreign military is defined here as a military intervention, which, according to this dataset is "the movement of regular troops or forces (airborne, seaborne, shelling, etc) of one country into the territory or territorial waters of another country, or forceful military action by troops already stationed by one country inside another, in the context of some political issue or dispute" (Pearson & Baumann, 1993, p. 4). Interventions must be purposeful (not accidental) and exclude foreign military bases. These data also exclude militias, paramilitaries and private security (Pearson & Baumann, 1993; Pickering & Kisangani, 2009). In other words, the IMI "catalogs episodes when national military personnel are purposefully dispatched into other sovereign states anywhere on the globe" (Pickering & Kisangani, 2009, p. 590).

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[24] As of June 29, 2011, the most recent year of data remains 2006.

This dataset updates Pearson and Baumann's (1993) original IMI data, which range from 1946-1988. To ensure validity of the updated data, the coding schema used by Pearson and Baumann (1993) was replicated, modern literature was reviewed to validate variable operationalization, and experts were consulted to confirm face validity (Pickering & Kisangani, 2009). To collect the data for the updated version of IMI, nine trained student research assistants were employed to search major news sources. International military intervention was determined through confirmation of three or more news sources, with news and other sources (e.g., books, scholarly journal articles) used to detail the event (Pickering & Kisangani, 2009). All coding was reviewed by the two principal investigators to increase reliability.

These data were selected because they are more inclusive than comparable datasets. The IMI includes both two-sided and one-sided action, unlike the Militarized Interstate Dispute data that is limited to two-sided conflict (Pickering & Kisangani, 2009). Additionally, the IMI records incidents where military forces are dispatched onto foreign soil regardless of purpose – whether in support of the government (e.g., to provide humanitarian aid), in opposition to it, or neither (Pickering & Kisangani, 2009). This is beneficial to other datasets that focus only on belligerent military force. Further, the IMI includes both large and small states, unlike other datasets focusing only on major powers like the United States, Russia, Britain, and China (Pickering & Kisangani, 2009). Given its comprehensiveness, these data were preferable for the present research. Accordingly, data were downloaded from the Interuniversity Consortium for Political and Social Research on

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April 9, 2011. While data were available from 1989-2005, only the time period here (1999-2005) was used.

World Bank

Two control variables (i.e., gross domestic product, population) were drawn from the World Bank. The World Bank is somewhat of a misnomer, as it is not a "bank", per se; instead, the World Bank (established in 1944 and headquartered in Washington, D.C.) is comprised of two development institutions owned by 186 countries and designed to provide assistance to developing and poorer countries in an effort to reduce poverty. The World Bank also collects data on countries around the globe, with a special attention to developing countries. Data are submitted by member countries to the World Bank, so the data largely depend on the country's statistical system; the World Bank website reports that it provides grants and training to help developing countries improve their statistical programs (http://data.worldbank.org). Additionally, the World Bank partners with other agencies like the IMF and the United Nations to share data and to ensure high standards for timely, accurate and reliable data. One of the statistical publications authored by the World Bank is the World Development Indicators, which records demographic (e.g., population), economic (e.g., Gross Domestic Product) and other information on all member countries. These data were downloaded on April 10, 2010 from the World Bank website. While the World Bank has compiled country information in its World Development Indicators dataset since 1960, the specific year used for each country is listed in Table 6 to be consistent with other independent and control variables.

CIA World Factbook

The Gini Index, a control variable, was collected from the CIA World

Factbook. The CIA World Factbook is a compilation of information (e.g., geography,

population, government, economy) on countries around the world. While these data

may be limited in that they are compiled by the Central Intelligence Agency and

include the biases inherent in government agencies, data are gathered from several

government agencies and other published sources. Additionally, information like

opinions about foreign governments that may suffer from bias is not used in the

present research. So, this limitation is minimal here. According to its website the

CIA updates the information regularly – almost weekly – which is an advantage of

these data. The Gini Index and other data were downloaded April 8, 2011 from the

CIA World Factbook website (http://www.cia.gov/library/publications/the-world-

factbook/fields/print_2172.html). Table 6 outlines the specific country-year used for

consistency with other independent and control variables.

Correlates of War

Two control variables (i.e., civil war and interstate war) were collected from

the Correlates of War (COW) dataset. The COW project collects information on both

intrastate (civil) and interstate conflict from 1816 through 2007 and these measures

have been used in other terrorism research (e.g., Mullins & Young, forthcoming). In

order for a conflict to be included in the COW dataset, the government must be

involved in active military action and at least 1,000 military battle fatalities must have

occurred; that is, COW only records major armed conflicts, which is beneficial to

avoid confusion with other forms of political violence. Additionally, both sides must

be involved in effective resistance, which means "…both sides [were] initially organized for violent conflict, or the weaker side must be able to inflict upon the stronger opponents at least five percent of the number of fatalities it sustains" (www.correlatesofwar.org). According to COW, interstate war is "Sustained armed combat between two or more state members of the international system which meets the violence threshold" of 1,000 military battle-related fatalities (Eck, 2005, p. 29), and civil war or "intrastate war" is "sustained combat between the armed forces of the government and forces of another entity for central control or for local issues" (Eck, 2005, p. 30).

One potential limitation of the COW dataset is that its inclusion criteria may have changed with its changing definition over time (Eck, 2005; Sarkees, undated), challenging the reliability of these data. The slight changing of the inclusion criteria of COW has not affected the interstate war list (used in the present research); the intra-state (civil) war list (also used here) has become more detailed, indicating whether intra-state war was a civil war for central control or over local issues, a regional internal war, or an intercommunal conflict (Sarkees, undated). But, these changes are before the time period of this study, as the changing typology has affected thirty wars between 1816 and 1992 (the primary change has been moving extra-systemic wars to the intra-state war category).

Another, related, possible critique of the COW data is that there are alternative war lists that vary from COW (see Sambanis, 2004, for a review), suggesting that "the concept of … war may mean different things to different people" (Sambanis, 2004, p. 856). However, all of these datasets show the same trends (Eck, 2005).

Further, COW is the most widely used dataset and has a set of coding criteria, so its intrastate war and interstate war datasets are incorporated here. These datasets were downloaded from the COW website (www.correlatesofwar.org) on April 8, 2011. While COW tracks wars since 1816, the current time frame of this study is 1999-2008; the data for these years are used.

World Health Organization

Homicide information was collected from the World Health Organization (WHO). The WHO, part of the United Nations, collects statistics on health around the world. One topic on which WHO collects data is mortality, which includes intentional homicide. In the WHO Mortality Database, the cause of death is determined by the relevant civil service. WHO collects this information from the national civil registration systems of each country and has compiled an annual summary of the total deaths from each cause, including homicide, since 1979. The WHO is preferable to other sources of international homicide data (i.e., Interpol, the United Nations – which also are used in some cases here) because it excludes attempted homicide and is based on actual deaths (Mullins & Young, forthcoming; see also Aebi, Killias, & Tabares, 2003; Kalish, 1988; LaFree, 1999; Messner & Rosenfeld, 1997; Neapolitan, 1997).[25] Accordingly, these data were downloaded on April 17, 2011 from the United Nations' website (http://www.unodc.org). The year of data used for each country is listed in Table 6 for consistency with other independent variables.

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[25] How WHO treats deaths from terrorism is unclear. To avoid potential overlap, models are run with and without the Homicide variable and any differences are noted.

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Amnesty International

Data on capital punishment, a control variable, were drawn from Amnesty International. Amnesty International is an international non-governmental organization devoted to promoting human rights around the world. Amnesty International collects information on a variety of human rights topics, including capital punishment. Because the organization advocates for the abolition of the death penalty, one might expect a possible bias; however, it is because of this focus that the organization arguably has the most updated information on the death penalty around the world. Accordingly, the list of abolitionist and retentionist countries was downloaded from the Amnesty International website (http://www.amnesty.org/en/death-penalty) on July 24, 2010. The information is not in a spreadsheet dataset; instead, a list of dates when the death penalty was banned in a given country and a country's last known execution is posted on Amnesty International's website. Accordingly, data from the entire time frame of this study (1999-2008) were used.

Transparency International

Information on corruption was drawn from Transparency International. Transparency International is a non-governmental organization committed to eliminating corruption around the world. According to its website, the organization defines corruption as "abuse of entrusted power for private gain" (Transparency International, 2010, ¶1). To assess corruption, Transparency International surveys both experts (in the Corruption Perceptions Index) and citizens (in the Global Corruption Barometer). While citizens' perceptions of corruption is more relevant

here, the former source – the Corruption Perceptions Index – is chosen instead

because the Global Corruption Barometer is limited to approximately 60 countries

and data are unavailable for several of the countries included in this sample.

The Corruption Perceptions Index (CPI) is published annually; *at least* three

surveys of experts are required before inclusion in the CPI. The surveys ask opinions

of business people and country analysts/experts questions regarding "bribery of

public officials, kickbacks in public procurement, embezzlement of public funds, and

questions that probe the strength and effectiveness of public sector anti-corruption

efforts" (Transparency International, 2010, ¶2). Approximately 180 countries

currently are represented in the CPI data (from 41 countries in 1995), which are

available online at www.transparency.org. Data were downloaded on May 29, 2010;

specifically, data corresponding with the country-year listed in Table 6 was used here.

Variables

Several variables were compiled from the data sources discussed above. Each

variable is described below.

Dependent variables: Measuring terrorist attacks on police

The dependent variables, the proportion of terrorist attacks against the police

and the proportion of fatal attacks against the police, were downloaded from the

Global Terrorism Database (GTD) website on July 29, 2010. The GTD is an

incident-level database, compiled from open-source information on terrorist incidents

worldwide since 1970 (National Consortium for the Study of Terrorism and

Responses to Terrorism, 2008). However, data on terrorist attacks against police are

gathered only between the years 1999 and 2008. The data are limited to this ten-year

period to match the time span from which data were collected on the main

independent variables. More importantly, this ten-year period was selected because,

as mentioned in Chapter 3, data on incidents after 1997 contain more information so I

am better able to identify attack targets relevant to this study: the police.

According to the GTD codebook, as a target type, attacks on "police" include:

… attacks on members of the police force or police installations; this

includes police boxes, patrols headquarters, academies, cars,

checkpoints, etc. Includes attacks against jails or prison facilities, or

jail or prison staff or guards. Also includes attacks against private

security guards and security forces. (p. 26)

This incorporates a broad definition of "police", so each incident was reviewed to

remove attacks on prisons/jails and private security.[26]

Important, the GTD counts up to three types of targets (targtype1, targtype2,

and targtype3) for each incident. In the present data, a new, dichotomous variable

was created to reflect whether the police were targeted in any of the three target

fields; if the police were any of these target types, the attack was coded to reflect that

police were targeted in that incident. Because the GTD is an incident-based dataset,

these data were aggregated to the country-level to match the unit of analysis. So, the

number of incidents where the police were the primary, secondary or tertiary target

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[26] Not all terrorist attacks against law enforcement officials or facilities (i.e., excluding jail/prison and private security) were able to be completely cleanly separated from the general category "police". Other fields in the data (such as the corporation of the target, the target description or the summary of the incident) sometimes provide more information on the target and every effort was made to remove cases not involving police (see footnote 16 in Chapter 3). However, many cases remain that are not clearly identified as police or prison/private security. While this may be a limitation of the data used for this study, a benefit is this all-encompassing definition, which fits nicely into the broad focus of this dissertation research – attacks against agents of social control.

first was tabulated for each country over the years 1999 through 2008; the same was done for the number of incidents in which a fatality occurred. Similarly, the number of total terrorist incidents was tabulated for each country over the years 1999 through 2008. To compute the proportion of terrorist attacks where police were targeted during this time period, the number of such incidents per country was divided by the total number of terrorist incidents against any target per country. To compute the proportion of fatal attacks against police, the number of incidents in which a fatality occurred and police were targeted were divided by the number of fatal incidents against any target during this time period.

Police legitimacy

Scholars have operationalized police legitimacy in several ways. Here, police legitimacy is measured as confidence in police (see Bennett et al., 2009; Hinds, 2007; Jang et al., 2010; Reisig & Lloyd, 2009), which can be considered a proxy for police legitimacy. Indeed, Jang and colleagues (2010) write "Confidence in the police is an important issue in any country because of its close association with the legitimacy of a police force" (p. 57). Confidence in police was drawn from the WVS (variable e069_06 in the merged data). As indicated above, the WVS did not ask this question in all countries during every survey wave. Because this question was not asked in the 2005-2008 wave for about 30 countries, data for these were drawn from the previous wave (1999-2001) – the most recent data available (see Table 6 for the specific year the survey was administered in each country included in the present sample).[27] As

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[27] Note that data were available for Great Britain, not the entire United Kingdom, but the UK is the country used in all analyses. The reason UK is the country used in all analyses is that data sources for all other independent variables collect data on the UK, not the countries within the UK.

demonstrated in Appendix A, these data are relatively stable over time, justifying using multiple survey waves in this cross-sectional sample.

For each country in the sample, respondents were asked:

> I am going to name a number of organisations. For each one, could you tell me how much confidence you have in them: is it a great deal of confidence, quite a lot of confidence, not very much confidence or none at all? The police.

Responses followed a four-point Likert scale: 1= a great deal; 2= quite a lot; 3= not very much; 4= none at all; -1= don't know; and -2=no answer. For each country-year, the percent of citizens who responded "a great deal" or "quite a lot" was calculated ("don't know" and "no answer" responses were excluded from the computation).

Recall that police legitimacy is not only generated from the behavior of the police. Because police legitimacy stems, in part, from the legitimacy of the state, a discussion of the measure of state legitimacy – included here – is warranted.

State legitimacy

Given the debate about how to define and measure legitimacy, no cross-national database of state legitimacy has yet been developed (Gilley, 2006). The measures used here were created by drawing from several data sources. Recognizing the three ways in which legitimacy is historically interpreted (Beetham, 1991, 1993), this research adopts Gilley's operational definition of legitimacy: "a state, meaning the institutions and ideologies of a political system, is more legitimate the more it holds and exercises political power with legality, justification, and consent from the

standpoint of all of its citizens…" (2009, p. 16). Accordingly, state legitimacy, as measured here, taps into three elements: (1) *views of legality*, the predictable rules and laws that the government follows; (2) *views of justification*, the state respects citizens customs, having the moral right to rule; and (3) *acts of consent*, the conscious citizen actions, obeying the government.

State legitimacy is measured from the standpoint of the citizens subject to the state's rule. The concept of legitimacy can be recognized in terms of citizens' attitudes and actions (Gilley, 2006; LaFree, 1998; Levi et al., 2009). Citizens' perceptions of legitimacy are important because objective measures of whether a political system is indeed legitimate fall short assessing whether citizens subjected to the system perceive it to be such. By relying on attitudinal measures the data will capture variation in perception across culture that might be lost if I were relying only on objective measures. Behavioral measures of legitimacy also are important because they compensate for some inherent issues in attitudinal surveys, including dishonesty in reporting and misunderstanding the question posed. Accordingly, both measures of attitudes and measures of behaviors are necessary and are used to gain a more complete picture of legitimacy. Legitimacy, though, is a multidimensional concept, so attitudinal and behavioral measures must tap into the components comprising legitimacy.

Views of legality. To represent the element *views of legality* (i.e., the state follows the rules), three variables are used: (1) citizens' confidence in the national government; (2) citizens' confidence in civil services; and (3) citizens' confidence in the justice system. All three variables were drawn from the World Values Survey

(variables e069_11, e069_08, and e069_17 respectively). Similar to the Confidence

in Police variable described above, participants were asked:

> I am going to name a number of organisations. For each one, could
>
> you tell me how much confidence you have in them: is it a great deal
>
> of confidence, quite a lot of confidence, not very much confidence or
>
> none at all?

The organization – the civil service, the national government, and the justice system –

was then named. Responses followed a four-point Likert scale: 1= a great deal; 2=

quite a lot; 3= not very much; 4= none at all; -1= don't know; and -2=no answer. For

each country, the percent who responded "a great deal" or "quite a lot" was calculated

for each variable.[28] Again, please see Table 6 for the year of data used for each

country.

    Views of justification. To represent the element *views of justification* (i.e., the

state has the moral right to rule), one variable is used: refugees who have fled the

country ("Refugees"). The legitimate state has a responsibility to protect all citizens

from discrimination (Jones, 2008; Otunnu, 2002). When the government fails to

protect a group persecuted for its customs or when the government actively

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[28] Survey data were not available for several countries. Accordingly, data from an earlier wave of the survey were collected – before the ten-year time frame used here. Specifically, confidence in government was drawn from the 1996 survey for Belarus, Croatia, Estonia, and Latvia and the 1997 survey for Lithuania. (Given that these were measured right after the Soviet and Yugoslav dissolution, there might be some shifting later on. Looking at confidence in civil services, there was a large shift in attitudes between the 1994-1999 wave and the 1999-2004 wave for Belarus, dropping from 51.34% to 22.95% of the population who had at least some confidence in civil services, Estonia, dropping from 60.92% to 40.57%, and Lithuania, dropping from 41.00% to 20.37%. However, Croatia and Latvia remained relatively stable, dropping from 37.92% to 31.28% and increasing from 44.13% to 49.17%, respectively. Whether the percentage of citizens who had at least some confidence in the government rose to their previous levels or remained low in later years is unknown.) Confidence in the justice system was drawn from the 1995 survey for Nigeria, the 1996 survey for Bangladesh, Philippines, and Venezuela, the 1997 survey for Pakistan, and the 1998 survey for Albania, Bosnia-Herzegovina, and Macedonia. No country had missing data for confidence in civil services. Importantly, analyses presented in Appendix A demonstrate the stability of confidence over survey waves.

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persecutes a group (e.g., genocide, ethnic cleansing), the government's moral legitimacy is depleted (Otunnu, 2002) and citizens turn to alternative leaders (e.g., militias, "freedom fighters") to replace responsibilities of the government or they flee the adverse circumstances (Jones, 2008). Accordingly, the number of refugees who left the country is an indicator of the legitimacy of the government.

Data on refugees from specific countries were collected from the Integrated Network for Societal Conflict Research (INSCR) and, to be consistent with the other state legitimacy indicators, data for each country were collected for years corresponding with the WVS surveys (see Table 6 for the specific year used for each country). Specifically, the number of refugees (in millions) originating from each country is used. According to the 1951 UN Convention on the Status of Refugees, a refugee is defined as "someone who is unable or unwilling to return to their country of origin owing to a well-founded fear of being persecuted for reasons of race, religion, nationality, membership of a particular social group, or political opinion" (Office of the United Nations High Commissioner for Refugees, 2011, p. 3). The measure is limited to only the type of persecution that is evident by refugees leaving the country; it misses those who are discriminated against but are unable to leave (i.e., internally displaced persons). While this is a crude measure, it taps into failure of the state to protect persecuted groups, representing *views of justification*.

Acts of consent. The final component of state legitimacy is *acts of consent* (i.e., conscious actions by citizens deferring to government authority). Two variables

are used to tap into this component: (1) Citizens' reported belief that cheating on taxes is never okay; and (2) refraining from protesting. [29]

Belief that cheating on taxes is never okay ("Against Tax Fraud") is drawn from the World Values Survey (question f116). Participants were asked: "Please tell me for each of the following statements whether you think it can always be justified, never be justified, or something in between... Cheating on taxes if you have a chance". Responses were coded on a ten-point scale, ranging from 1=never justifiable to 10=always justifiable. (-1= don't know and -2= no answer also were response codes.) The percentage of participants who responded 1=never justifiable was used to measure this element.[30] "Never justifiable" was selected because any higher on the scale would indicate that tax fraud would be acceptable under some circumstances – including the possibility of state illegitimacy.

Another element of *acts of consent* is whether people participate in peaceful protests. People protest against an illegitimate government or state policy. By protesting, people are actively demonstrating their lack of consent for the state, indicating their disapproval and perception of illegitimacy. Question e027 of the World Values Survey asks respondents,

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[29] Some (e.g., Gilley, 2006, 2009) argue that acts of consent is, by definition, purely behavioral. However, Tankebe (2009) notes that consent is only crudely behavioral and cautions of the "possible dangers of methodological tautology when researchers seek to operationalize legitimacy with a scale that includes within it aspects of what it is trying to explain, that is, public behavior" (p. 1280, footnote 1). While this criticism is valid, the present research focuses on acts of terrorism, which are an extreme way for citizens to demonstrate they do not voluntarily consent to the state's rule. The variable used for acts of consent, citizen's reported belief that cheating on taxes is never okay, has little to do with the outcome variable, the proportion of terrorist attacks on police. So, this concern is minimal here. The other variable used to measure acts of consent is people reporting they would never engage in a legal protest. On its surface this may seem to partially overlap with the dependent variable – terrorism – but terrorism is illegal, not legal, violence. Also, terrorism is an extreme form of demonstration, which does not seem to be conveyed in the survey question asked. Nevertheless, models are run both with and without the Never Protest variable to avoid tautological concerns and differences are noted.

[30] Data for Peru were collected from the 2001 WVS survey.

Now I'd like you to look at this card. I'm going to read out some different

forms of political action that people can take, and I'd like you to tell me, for

each one, whether you have actually done any of these things, whether you

might do it or would never, under any circumstances, do it. Attending lawful

demonstrations.

Participants responded 1= have done; 2= might do; or 3= never do. Because people

who consent to the state's rule would not protest against it, the percentage of people

who responded they would never participate in protest is an indicator of acts of

consent. Again, this is a crude measure of consent, as there may be other reasons not

to attend a lawful demonstration both unrelated to legitimacy and tied to illegitimacy,

such as a belief that protests do not affect change, not wanting to take time away from

work, a belief that most causes are not worthwhile, or fear of punishment from an

illegitimate regime.

Table 7 summarizes the measures used for each element of state legitimacy.

INSERT TABLE 7 ABOUT HERE.

Alternative explanation variables

As described in Chapter 4, alternative explanations for terrorist attacks on

police should be included to avoid erroneous conclusions. In this section, I describe

the other independent variables used to test hypotheses three through five: Societal

Schism, Foreign Military, and Police Per Capita, which represents opportunity.

Societal schism. Societal schism refers to the level of divide or disunity in a

society. To measure this concept, data were drawn from the Minorities at Risk

(MAR) database, using data from the year 2006, the most recent year available.[31]

The country-level discrimination data are available from 1950-2003, but these data only include the aggregate Political Discrimination Index and Economic Discrimination Index for each group. MAR has group-level data updated from 2004-2006, which can be aggregated to the country level; these updated data include significant changes (according to the MAR website). These recently released data include new variables that are of interest here.

MAR includes assessments of a minority group's differences in terms of language (0=linguistic assimilation with plurality group; 1=group speaks multiple languages, at least one different from plurality group; 2=group speaks primarily one language, different from plurality group), customs (0=same social customs as plurality; 1= different social customs from plurality), beliefs (0=same religion as plurality; 1=different sect within same religion as plurality; 2=different religion), race (0=no physical differences in appearance; 1=physically distinguishable subtype of same racial stock; 2=different racial stock from the dominant group with substantial intermixture; 3=different racial stock, little or no intermixture), with higher values representing greater differences. Because there may be several minority groups who are discriminated against within a country, following Lai (2007), the highest score within a state is used. An index summing each of these four differences was used to tap into societal schism. This index ranges from a possible 0 (no differences from dominant group) to 8 (very different in terms of language, customs, beliefs and race).

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[31] Data are not yet available for 2007 and 2008 (as of June 1, 2011).

Several (13) countries had no groups listed in the MAR dataset;[32] while these countries may have minority groups who experience discrimination, these countries may simply not be included in the MAR data, which does not claim to represent all countries worldwide, or these groups may not fit the definition of the MAR project. These countries receive a score of 0 for Societal Schism.

Presence of foreign military. Data were drawn from Kisangani & Pickering's ICPSR Study #21282: *International Military Intervention, 1989-2005* to measure foreign military presence. Using these data, a dichotomous variable was created, tapping into whether a foreign military was present – even on a peacekeeping mission – on a country's soil any time between 1999 and 2005 (1=foreign intervention; 0=not).

Opportunity. Opportunity to attack police is measured by the number of police officers per 100,000 people, drawn from the *World Police Encyclopedia* (Das, 2006). Police personnel were not explicit for some countries in this source, so police officer per 100,000 citizens for the year 2004 was supplemented by the United Nations' 9th Survey on Crime Trends and the Operations of Criminal Justice Systems (for Belarus, Lithuania, Moldova, Philippines, Portugal, South Korea, and Zimbabwe), the Federal Bureau of Investigation's 2004 *Uniform Crime Reports* (for the United States), and European Institute for Crime Prevention and Control International Statistics on Crime and Justice, 2011, accessed through Nationmaster.com (http://www.nationmaster.com/graph/cri_pol_off-crime-police-officers) (Bosnia and Herzegovina for 2006, Guatemala for 2000, Jordan for 2006,

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[32] These countries include Austria, Belgium, Burkina Faso, Iceland, Ireland, Norway, Poland, Portugal, Serbia, Slovenia, Trinidad and Tobago, Uruguay, Zimbabwe.

Malaysia for 2000, Morocco for 2001, Thailand for 1995, and Venezuela for 2001).[33] Information was missing from each of these sources for eight countries (Bulgaria, Burkina Faso, Ghana, Iran, Nigeria, Rwanda, Tanzania, Trinidad and Tobago).

Control variables

There is mixed evidence that country-level variables (e.g., gross domestic product, political rights) impact citizen acceptance of authority (Levi et al., 2009) and terrorism in general (Piazza, 2006). Nevertheless, these variables may be important to the study of terrorism and terrorist attacks on police. Perhaps the reason for this mixed evidence is because macro-level factors are mediated through legitimacy. Therefore, several control variables are included.

While there is some conflicting evidence these factors influence general terrorism, they may or may not influence terrorist attacks on the police or affect attacks on police in the same way. This may be problematic if they influence general terrorism (the denominator of the dependent variable), but not terrorist attacks on police (the numerator), affecting the proportion. In this way, these variables can have an opposite effect than predicted on the dependent variables. To be consistent with the independent variables, one-tailed tests are used for each control variable, although really there are no directional expectations.

Additional data regarding macro-level publicly-available information about the countries where the incidents occurred were collected. These variables are included in the models and described below. Unless otherwise noted, data were collected on each variable to match the country-year described in Table 6.

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[33] These years are different from those listed in Table 6. But, these are the closest years when data are available.

Regime type. The type of political regime may affect terrorism. First, democracies, with more freedoms, may provide the atmosphere and opportunity for terrorism at lower cost and risk (Drakos & Gofas, 2006). Authoritarian regimes, with tighter control, may have fewer terrorist attacks because of the greater control and because citizens may perceive that resistance is futile (see Gibson, 1989). Some empirical evidence supports the contention that autocracies produce fewer terrorist organizations (Lai, 2007). However, Drakos and Gofas (2006) point out democracies may *appear* to have more terrorism because non-democracies tend to underreport terrorist incidents. They find a weak statistical relationship between democracy and terrorism, as the polity coefficient switches sign and significance between models.

On the other hand, democracies incorporate public representatives into decision-making and there is more opportunity at the political table, so diverse groups can voice their opinions and grievances without resorting to violence (Drakos & Gofas, 2006). Crenshaw (1981) argues one of the main motivations for terrorist activity is the absence of this opportunity for involvement in the political process.

Finally, democratic regimes may be considered more legitimate because democratic countries are not police states (Herbert, 2006). Public involvement in the electoral system may have an impact on police legitimacy or perceptions of police, generally. Regarding the latter, Goldsmith (2005) summarizes "A deficit of trust is all too common in deeply divided, post-conflict and post-authoritarian societies" (p. 444). In less democratic countries, police may be used as a tool of illegitimate regimes, decreasing citizen confidence in police; and, in fact, confidence in police is greater in more democratic countries (Jang et al., 2010).

Polity data were gathered from the POLITY IV Project, downloaded from the INSCR website on March 13, 2010.[34] Table 6 lists the specific year data were drawn for each country. The POLITY IV data compute institutionalized democracy and institutionalized autocracy scores for each country per year (1800-2008). According to the codebook, several pieces of information are used to assess both democracy and autocracy: (1) competitiveness and openness of executive recruitment (democracies hold elections while autocracies are selective and closed); (2) constraint on the chief executive (constraints are substantial in democracies while autocracies have little to no constraints); and (3) competitiveness of political participation (democracies are unrestricted, open and fully competitive while political participation is suppressed/repressed or restricted in autocracies). The data also include a "Polity2" score, combining the autocracy and democracy variables by subtracting the autocracy score from the democracy score. This scale ranges from -10 (very autocratic) to 10 (very democratic). The POLITY IV Project website suggests that researchers can create a categorical variable (see http://www.systemicpeace.org/polity/polity4.htm). Following this advice, for example, Lai (2007) created a trichotomous categorical variable (autocratic states scored -6 to -10, anocratic states scores -5 to +5, and democratic states scored +6 to +10), which he then made into three dichotomous variables. This process was replicated here, creating a dummy variable for Autocratic states, a second for Anocratic states, and a third dummy variable for Democratic states.

Iceland and Luxembourg are missing in the Polity IV dataset. According to the CIA World Factbook, Iceland is a constitutional republic (Central Intelligence

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[34] Data are copyrighted by Center for Systemic Peace.

Agency, 2011b). The president and parliament are elected by popular vote every four years; several political parties operate in Iceland (Central Intelligence Agency, 2011b). Similar to the UK, Luxembourg is a constitutional monarchy (Central Intelligence Agency, 2011d). While the monarchy is hereditary, popular elections are held every five years to the legislative Chamber of Deputies with the leader of the majority party typically appointed as prime minister (Central Intelligence Agency, 2011d). Because both of these countries meet some of the main elements of the operational definition of democracy (as defined by the Polity IV codebook) and are not clear autocracies, for the purposes of this research, both countries were coded as a democracy (not an autocracy or anocracy).[35]

    Poverty. Impoverished economies may impact terrorism directly (Drakos & Gofas, 2006) because they provide a large pool of persons vulnerable to recruitment into terrorism, as terrorist groups may offer opportunity unavailable through legitimate occupations (Kennedy, 1998; Kushner, 1998; but see Radu, 2002). While some studies report a significant impact of poverty (Mullins & Young, forthcoming; see also Lai, 2007), others report no effect (Piazza, 2006) or a curvilinear effect (Lai, 2007).[36] The extant evidence suggests that poverty, in itself, may not be a direct cause of terrorism. However, absolute economic indicators may be misleading and relative economic indicators may be more appropriate in the study of terrorism.

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[35] The Polity IV codebook defines "A mature and internally coherent democracy… as one in which (a) political participation is unrestricted, open, and fully competitive; (b) executive recruitment is elective, and (c) constraints on the chief executive are substantial" (p. 13).
[36] Lai (2007) found the logarithm of GDP per capita was positive and significant and the squared term was negative and significant, which was interpreted as meaning that states with mid-level GDP per capita are most prone to terrorism, compared to those states with high or low GDP per capita.

Following prior research, gross domestic product (GDP), collected from the

World Bank, is used as an absolute economic indicator. Specifically, GDP per capita

in 2000 US dollars (in thousands) is used to assess a country's wealth.[37]

Relative deprivation. LaFree (1998) argues that relative measures of

economic stress are more pertinent to crime, and, by extension, terrorism, than are

absolute measures of economic stress:

> Absolute measures generally refer to how individuals or groups of individuals
>
> are doing in comparison to some fixed level of economic well-being…. By
>
> contrast, relative measures of economic stress emphasize how one individual
>
> or group of individuals is doing compared to other individuals or groups. (p.
>
> 119)

Relative measures are preferred for two reasons: While a group may be more

prosperous than in the past or compared to citizens of other countries (e.g., Great

Britain compared to Haiti), "these same individuals may experience substantial

feelings of deprivation compared to the relatively affluent individuals who surround

them" (LaFree, 1998, p. 120; see also Gurr, 1970). Additionally, "absolute measures

of economic stress may mask changes at the margins of the income distribution that

are likely to affect crime trends" (LaFree, 1998, p. 120). Even if a society has an

increasing GDP, for example, the same society may also experience increasing

economic inequality (LaFree, 1998).

Economic inequality may impact police legitimacy which, in turn, may impact

terrorism. Goldsmith (2005) summarizes "wherever there are strong indicators of …

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[37] Notice in Table 6 that data on the independent variables is collected in 1999 for Estonia. The 1999
GDP per capita was unavailable for Estonia, so data from the year 2000 was used.

relative socio-economic inequality, public trust in police tends to be problematic" (p. 444). Jang and colleagues (2010) argue that in countries with greater economic inequality, citizens may view police treatment as unequal, which, in turn, affects citizen perception of police. (However, they found no significant impact of economic inequality on confidence in police in the 15 countries under study.) According to LaFree (1998), "Those who believe that economic institutions are unfair or unjust might be reasonably expected to have less interest in helping to control or regulate the criminal behavior of others" (p. 82), and those who are relatively deprived economically may be more likely to view related institutions as illegitimate. So, there is reason to suspect that greater relative deprivation increases both general terrorism and attacks on police. Accordingly, a positive relationship is expected.

To assess relative deprivation, the Gini Index, which assesses the level of inequality between high and low incomes, is used. The higher the Gini Index, the greater the inequality. The CIA World Factbook was used to collect data on the Gini Index for family income in each country under study. The data were downloaded April 8, 2011 from the CIA World Factbook website (http://www.cia.gov/library/publications/the-world-factbook/fields/print_2172.html). Only some years are reported for each country; Gini Index data was collected for the country-year closest to that described in Table 6.[38] The CIA World Factbook did not report a Gini Index for Trinidad and Tobago.

Violence. Violence may affect terrorism in several ways. First, high violence by the state or its citizens sends the message that violence is an acceptable way to

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[38] Interestingly, the Gini Index appears to be stable over time. Using a sample of 105 countries for which data were available in the CIA World Factbook during two years, a paired samples *t*-test was not significant ($t=0.148$, $df=104$, $p=0.883$), indicating there was not a large change over time.

resolve disputes. Crenshaw (1981) would refer to this as social facilitation, "social habits and historical traditions that sanction the use of violence against the government, making it morally and politically justifiable, and even dictating an appropriate form…" (p. 382).

Second, violence may be contagious. Drakos and Gofas (2006) found evidence of infectious contagion or spatial diffusion; in their models, the level of terrorism in a region predicted the count of terrorist attacks in a given country in that region. Similarly, Lai (2007) found terrorist incidents are more likely in states that share borders with states higher in terrorist activity. Terrorist groups may cooperate, sharing information and training (Drakos & Gofas, 2006).[39] Alternatively, terrorist groups may have operations in more than one country, also accounting for infectious contagion (Drakos & Gofas, 2006, p. 90).

Third, state involvement in violence may affect social control capabilities. Prior research suggests that war may have an impact on terrorist incidents (Lai, 2007). Unpopular international war may reduce the legitimacy of the government, causing domestic unrest that may breed terrorism; also international war may encourage foreign fighters to attack the state through terrorist attacks (Drakos & Gofas, 2006). On the other hand, states may tighten domestic security measures during times of war, increasing the cost and risk associated with terrorism, leading to decreased incidents of terrorism (Drakos & Gofas, 2006). Or, during times of war, states may be less able to control their territory (Lai, 2007). Drakos and Gofas (2006) found interstate conflict to be a significant predictor of the count of terrorist attacks in

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[39] However, it is important to recognize that "the use of new/Internet-based technologies for coordinating, communicating and supporting the planning of terrorist activities is somewhat diluting the importance of regional economies of scale" (Drakos & Gofas, 2006, p. 79).

a given country between 1985 and 1998. Countries engaged in international disputes were more likely to have more terrorist attacks than countries not involved in such conflict.

Crime also may have an impact on legitimacy (LaFree, 1998). The instrumental or performance-based argument of legitimacy holds that legitimacy and crime are inversely related. That is, as crime decreases, perceptions of legitimacy increase, as the government (i.e., the police) is performing adequately in protecting the public. In addition to affecting state legitimacy, crime may affect police legitimacy. Studies have shown that violent crime affects citizens' attitudes toward the police. For example, Stack and colleagues (2007) found that homicide rates impacted citizens' attitudes toward law and order in 14 countries. Areas high in crime impact police perceptions of citizens, making police more suspicious of citizens and creating an "us" versus "them" attitude (Goldsmith, 2005). Goldsmith (2005) writes "The problem deepens because official contempt begets public distrust…. In deeply divided societies, this attitude will serve to reinforce those … already suspicious towards police and even call forth hostile public reactions, including violent attacks, against the police" (p. 454). Indeed, in a cross-national comparison of 15 countries examining the impact of confidence in the police (as measured by the World Values Survey), Jang and colleagues (2010) found that those respondents in nations with higher homicide rates reported less confidence in the police.

Several measures of violence within a state are used here, including state involvement in war, homicide, terrorist activity in the region, and capital punishment. Because violence affects general terrorism and may affect attacks on police, I expect

a positive relationship between the violence variables and the proportion of fatal and nonfatal attacks on police.

War data was drawn from the Correlates of War dataset. Two dichotomous variables were created, assessing whether a state was involved in intra- or inter-state conflict any time between 1999-2008 (1=involved; 0=not involved).

The only crime for which there is somewhat reliable information across countries is homicide. Accordingly, the measure of violent crime used in the present research is homicide rates per country, drawn primarily from the World Health Organization (WHO) data. For countries missing from the WHO intentional homicide reported data, homicide information was substituted from other sources, including the United Nations Survey of Crime Trends and Operations of Criminal Justice Systems (available online at http://www.unodc.org). Specifically, homicide data from Canada, Costa Rica, Ecuador, Peru, Portugal and Sweden were drawn from the 9th UN Crime Trends Survey and Argentina, Panama, Paraguay, and the United States were drawn from the 10th UN Crime Trends Survey.[40] Information from Brazil came from the Ministry of Health and Ministry of Justice of Brazil, collected by the UN. The UN also collected homicide data on Chile from the National Police of Chile, Colombia from Medicinalegal citing National Police of Colombia, Guatemala from the United Nations Development Programme (UNDP) citing the National Police of Guatemala, Mexico from the ICESI citing the National Police of Mexico, the United Kingdom from the Statistical Office of the European Communities Crime and

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[40] According to the questionnaire, intentional homicide is "death deliberately inflicted on a person by another person, including infanticide" and non-intentional homicide is "death not deliberately inflicted on a person by another person. That includes the crime of manslaughter but excludes traffic accidents that result in the death of persons" (p. 5). Only intentional homicide rates are used in the present dataset.

Criminal Justice Statistics, Uruguay from the Ministry of Interior of Uruguay, and Venezuela from the Chacao Municipality citing the National Police of Venezuela. For all of these countries, homicide data are from the year 2004 (or 2005, in the cases of Argentina, Serbia and the United States).

Regional terrorist activity also is an important control variable. The total number of terrorist attacks against any target in the region – excluding the current country – between 1999 and 2008 were drawn from the GTD. The GTD's regional delineations were used, as described in Table 4.

State-sanctioned violence is measured by the use of capital punishment, drawn from Amnesty International's database on capital punishment. A list of countries that have abolished the death penalty and the date of abolition is available on the Amnesty International website (www.amnesty.org). Death Penalty is measured as a dichotomous variable, whether a country has abolished the death penalty for all crimes either in practice (i.e., a moratorium or most recent execution occurred before 1999) or in law as of 2008 (0=abolished death penalty; 1=has not abolished death penalty).

Taken together, these measures of violence may be part of a latent variable. Mullins and Young (forthcoming) found a single factor, which they called "culture of violence", represented by war, state violence and citizen violence (i.e., homicide rates); this factor had the strongest association to terrorist attacks. Unfortunately, some of these variables do not meet the assumptions of factor analysis, as three variables (Civil War and Interstate War and Death Penalty) are not continuous, so the violence variables are included as separate variables.

Corruption. Corruption data were downloaded from Transparency International.[41] Transparency International annually publishes the Corruption Perceptions Index (CPI), compiled from surveys of experts including business people and country analysts.[42] Scores on the CPI range from a possible 0-10, with 0 representing high corruption in a country and 10 representing a highly "clean" or not corrupt country.[43]

Population density. Finally, the extant literature empirically demonstrates that countries with more people experience more terrorism (Drakos & Gofas, 2006; Lai, 2007; Piazza, 2006). Mullins & Young (forthcoming) argue that states with higher populations are expected to produce more people motivated to use terrorist violence. Higher populations also mean fewer resources available per person. Drakos and Gofas (2006) interpret population density in terms of resource scarcity; they hold that "access to and control over natural resources is an important cause of tension" (p. 77). The total population and population density were downloaded from the World Bank Development Indicators.

Summary

All variables and their sources are summarized in Table 8.

INSERT TABLE 8 ABOUT HERE.

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[41] The World Values Survey has a question asking respondents about corruption (see question e196 in the integrated questionnaire). However, this question was asked in only about half of the countries included in this sample. Accordingly, the corruption measure from Transparency International is used.
[42] For a country to be included in the CPI, a minimum of three such surveys are needed.
[43] Data were not available for Bosnia-Herzegovina for 2001, so corruption data were drawn from the closest year (2003) for this country.

Analyses

Constructing state legitimacy

State legitimacy is a latent construct that is believed to be made up of three components (views of legality, views of justification and acts of consent), described above. Accordingly, factor analysis is appropriate. Maximum likelihood factor analysis is most desirable, as it offers the calculation of several goodness of fit statistics to better assess the factor (Brown, 2006; Costello & Osborne, 2005). However, maximum likelihood relies on several assumptions: (1) a large sample size; (2) continuous variables; and (3) multivariate normal distribution (Brown, 2006). Especially of note is that a skewed distribution affects model fit tests (Brown, 2006). If the maximum likelihood assumptions are not met, principal axis factor analysis will be used, as it does not assume a multivariate normal distribution (Costello & Osborne, 2005).

Tobit model

The statistical package Stata (version 10) is used for analyses. Because the dependent variables – the proportion of terrorist attacks against police and proportion of fatal terrorist attacks targeting police – are proportions, they are continuous variables censored at zero and one. Accordingly, Tobit analysis is most appropriate. The Tobit model primarily assumes that the errors are normal and homoskedastic (Long, 1997). These assumptions are tested to assess the qualities of the estimates. The distribution of the error terms and the normal probability plot are examined to assess normality, and the Breuch-Pagan test and White's test are used to assess

homoskedasticity. Also, bivariate correlations are computed to assess evidence of multicollinearity among the independent variables.

Limitations and Additional Analyses

Small sample size

With a sample size of only 82, statistical power should be assessed. Statistical power is used to assess the likelihood of a Type II Error – that the researcher is unable to identify an existing relationship. In other words, "the greater the statistical power of a test, the less chance there is that a researcher will mistakenly fail to reject the null hypothesis" (Weisburd and Britt, 2003: 606). Cohen's (1988) power tables, used to assess statistical power, incorporate four factors: significance level, sample size, directionality (one-tailed or two-tailed tests), and effect size (Cohen's d). The significance level is set at 0.05, the sample size is 82, all hypotheses are one-tailed tests, regression is the statistical method used to analyze the data, and the sample size corresponds to a power value equal to or greater than 0.95 to minimize the probability of Type II Error, so power tables corresponding to t-tests are used to assess the effect sizes: small (Cohen's $d = 0.20$), medium (Cohen's $d = 0.50$), and large (Cohen's $d = 0.80$).

INSERT TABLE 9 ABOUT HERE.

As shown in Table 9, the analysis should be able to detect only a medium to large effect, given the size of the sample, while minimizing both Type I and Type II Errors. In other words, the smaller sample size makes rejecting the null hypothesis more difficult, so only a large effect will be identified. At first glance, having low

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power may be considered a drawback. However, because only a large effect will be detected here, this lends more weight to any significant findings. That is, reaching a significant relationship between police legitimacy and terrorist attacks on police – despite the low statistical power – will lend to the robustness of the findings.

Due to these concerns about sample size, the models are kept as parsimonious as possible while still remaining informative. First, separate models are run with each primary independent variable. Next, models are run with each primary independent variable and the control variables. Then, models are run with all of the independent variables and control variables.[44] Finally, the last set of models is run with all of the independent variables and the relevant control variables, with relevancy determined by *F*-tests.

Missing values

In addition to the small sample size, values are missing on some variables (see Table 10 for the countries missing values on each variable). There are several techniques available to deal with missing data (see Allison, 2001). Listwise deletion (also called complete-case analysis) is most common, but removing observations with missing data is undesirable here, considering the already low statistical power discussed above. Listwise deletion can inflate standard errors and lead to biased estimates when data are not missing completely at random (Allison, 2001; Schafer & Olsen, 1998). To accommodate the concern for removing cases with missing information, substituting the variable mean (also referred to as mean imputation or simple or single imputation) often is used. This method, too, can lead to biased

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[44] While regression analyses should have, at minimum, a ratio of one predictor for every five cases, Tobit will not converge if there are more covariates than nonzero cases.

estimates because it does not take into account the uncertainty of the imputed values (Allison, 2001; Schafer & Olsen, 1998; Stuart, 2009). Maximum likelihood estimation is another way to resolve the problem of missing data and can be beneficial – but only for large samples, which is not the case here. Maximum likelihood estimation is further limited in that "it requires a model for the joint distribution of all variables with missing data" and multivariate normal model often is not realistic (Allison, 2001, p. 27). An alternative is multiple imputation, which produces consistent and efficient estimates, but also assumes the data are missing at random (Allison, 2001; Schafer & Olsen, 1998). While the logic behind multiple imputation is simple in that the process fills in missing values multiple times to create multiple datasets and then combine results across datasets, finding the right imputation model is difficult at best and may introduce bias (Allison, 2001). Nevertheless, a benefit of multiple imputation is that it accounts for the uncertainty in the imputed values, unlike mean substitution (Schafer & Olsen, 1998; Stuart, 2009).

INSERT TABLE 10 ABOUT HERE.

All of these methods are mainly appropriate for data that are missing completely at random or missing at random, which may or may not be the case here. We can never know whether data are missing at random or missing complete at random because we are unable to test for it: "Because we do not know the values of the missing data, we can not compare the values of those with and without missing data to see if they differ systematically on that variable" (Allison, 2001, p. 4). That said, Mullins & Young (forthcoming) suggest that the international data – similar to those used here – are *not* missing at random. They argue that less developed

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countries are more likely to have missing data than more developed countries, and this can be predicted using, for example, Gross Domestic Product. Specifically, they found that countries with lower GDP had more missing data than countries with higher GDP. Mullins & Young (forthcoming) also found that missing data are more likely in countries with fewer terrorist attacks. If that is the case with the current data, then the missing at random assumption required for each method listed above would be violated.

Allison (2001) observes that "The only really good solution to the missing data problem is to not have any" (p. 2), as we cannot know whether the manipulated dataset contain the true values of the missing data. However, when missing data are unavoidable, as they are here, the best way to handle the missing data is to triangulate methods. Mullins & Young (forthcoming), also using comparative data to study terrorism, employed two techniques to impute data, comparing the results from each approach, as well as with the results of the listwise deletion method. If these different methods produce results that all tell a similar story, the results are considered more trustworthy. Accordingly, several approaches to address missing data issues are compared in this dissertation: multiple imputation by chained equations (MICE, which fills in the missing values on each variable, in turn, using all of the other variables as predictors in regression models),[45] mean substitution for missing values, and listwise deletion. The results from the multiple imputation data are reported in Chapter 6 (see Appendix B for comparisons with mean substitution and listwise deletion); substantive differences between missing data methods are noted.

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[45] The `ice` command in Stata version 10 is used to impute data.

Extreme proportions of terrorist attacks against police

One limitation of using proportions is that those countries with a low frequency of total terrorist attacks will have arbitrarily high or low proportions dependent on the target. Countries where there are very few total terrorist attacks and most or very few are targeted against the police will produce proportions that might be arbitrarily close to 1 or 0. According to the Law of Large Numbers, as the number of total terrorist attacks increases, the observed proportion comes closer to the true proportion (see Bachman & Paternoster, 2004; Greene, 2008). However, when a country has relatively few total terrorist attacks, there may be error in the dependent variable. To account for this limitation, count models also are run (with the total number of police as an exposure variable and the total number of terrorist attacks against non-police targets as a control variable) to check the robustness of the results found in the Tobit model.

Violations of Tobit assumption

Tobit assumes normally distributed error terms and homoskedasticity, which may be violated in these data. To address this issue, semi-parametric models using Censored Least Absolute Deviations (CLAD) estimator will check the robustness of the results.[46] CLAD is slightly different than Tobit regression, as it is median

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[46] Another alternative to Tobit is Symmetrically Trimmed Least Squares (SCLS) estimator for the censored regression model. Its assumptions are more relaxed than Tobit but more restrictive than CLAD. SCLS does not require that the errors follow a specific distribution, only that they are symmetrically distributed and unimodal with a mean of 0 (Powell, 1986; Sullivan et al., 2008). Estimates will be consistent even if the error terms are heteroskedastic. SCLS is a two-step process, where first the data are symmetrically truncated from the uncensored end of the distribution; then, analyses proceed with the remaining cases (Powell, 1986; Sullivan et al., 2008). Unfortunately, this trimming process results in a reduced sample size for analysis. Powell (1986) demonstrated SCLS estimates are consistent with a sample size as small as 200; in the present research, recall there are 82

regression and has minimal assumptions (Powell, 1984; Sullivan et al., 2008). CLAD

estimates do not require homoskedasticity (Powell, 1984) or that the error terms are

symmetrically distributed, but it does require that the error median be equal to zero

(Sullivan et al., 2008). However, Sullivan and colleagues (2008) find that "CLAD,

with its relaxed assumptions regarding error terms, may be used as a benchmark, this

does not mean that it *always* gives the best approximation of the true relationship" (p.

413, footnote 16, emphasis in original). The small sample size presented here may

lead to inflated standard errors (Sullivan et al., 2008), as CLAD also reduces the

sample size.

Sullivan and colleagues (2008) advise researchers to triangulate models, using

multiple Tobit models to test results and thoroughly examining the distribution of the

error terms. At the very least, running multiple models allows for sensitivity checks

on the Tobit model (Sullivan et al., 2008). Following this advice, the assumptions for

the traditional Tobit model and CLAD are tested and two sets of models are

computed (Tobit and CLAD), as reported in the next chapter.

However, Tobit also assumes that the regressors that affect whether the police

are ever targeted and the parameters that show the nature of this relationship –

$P(y \geq 0|X)$ – are equal to those that predict how many times (relative to other attacks)

the police are targeted – $E(y|Y>0, X)$ (Lin & Schmidt, 1984). This assumption is

unlikely met in countries with no terrorist attacks and perhaps also in countries with

terrorist attacks, requiring alternative estimation methods. One way to address this

issue is to use Cragg's (1971) "double-hurdle" or "two-tiered" model, where a probit

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countries available for analysis. The small sample size here will inflate standard errors, making the
findings even more vulnerable to Type II Error (Sullivan et al., 2008).

model is estimated to determine the probability of a non-zero value and a truncated

normal model is estimated to predict non-zero values. Such models will be estimated

using the Stata command `craggit` (see Burke, 2009), and a likelihood ratio test will

be used to confirm whether this Tobit assumption is violated. Significant likelihood

ratio tests indicate the assumption is violated and Cragg's model is more appropriate

than the Tobit model; if not significant, the likelihood ratio tests will confirm that this

Tobit assumption is not violated and is indeed preferable to Cragg's two-tiered

model. Results of these tests are noted in the next chapter with the results of the

Tobit analyses.

Chapter 6: Results

In this chapter, I begin with sample summary statistics, followed by an explanation of the state legitimacy factor analysis results. The remainder of this chapter addresses the results of the Tobit models, answering the question "does legitimacy influence the proportion of terrorist attacks against police?". These results are then confirmed using negative binomial regression analyses. Unless otherwise indicated, all statistics reported were calculated with missing data imputed through multiple imputation; see Appendix B for comparisons with other data imputation methods.

Summary Statistics

This section describes the variables used to better understand the nature of terrorist attacks against police in the 82 countries under study. The regions represented in the sample are depicted in Figure 7. Most countries in the sample are located in Europe, Sub-Saharan Africa or the Americas (which is not surprising, as this is a convenience sample, including countries for which data were available). Looking at Figure 8, these regions experience relatively little terrorist attacks targeting police compared to regions having fewer countries in the sample. South Asia (35.5%), Southeast Asia (16.6%), Russia and the Newly Independent States (15.7%), and the Middle East/North Africa (9.7%) comprise the bulk of terrorist attacks on police, followed by Western Europe (8.4%), South America (7.8%), Eastern Europe (2.7%), and Sub-Saharan Africa (2.1%). The remaining regions comprised less than one percent of the attacks on police in the sampled countries.

Turning to countries, only four countries (about 5% of the sample) experienced no terrorist attacks against any target; the remaining 78 countries had at least one terrorist attack (see Figure 9). Of the countries that had at least one terrorist attack, none of these attacks were directed against the police in 37 countries. Of the 51 countries that had fewer than 20 total terrorist attacks, 12 had at least one attack directed against the police. An additional five countries had between 21 and 30 total terrorist attacks between 1999 and 2008; of these countries, three had attacks against the police. For these 17 countries, the small denominator may be an issue affecting the proportion, that is, if these countries had more general terrorist attacks, police may have been targeted.

Looking at *fatal* terrorist attacks, 31 countries (about 38% of the sample) did not have any terrorist attacks resulting in fatalities. (See Figure 10.) Of the 51 countries having at least one fatal terrorist attack against any target, 34 countries had 20 or fewer fatal terrorist attacks and 22 countries had no fatal attacks against police. Of these 34 countries with 20 or fewer fatal terrorist attacks, police were targeted in at least one of these incidents in 12 countries. An additional three countries had between 21 and 30 fatal terrorist attacks against any target and all of these countries experienced at least one attack on the police. For these countries, the few fatal attacks against any target (i.e., the small denominator) may affect the proportion of fatal terrorist attacks against the police.

Descriptive statistics are presented in Table 11. The proportion of terrorist attacks against police ranged from 0 to 0.391; that is, some countries had no terrorist attacks against police while in one country 39% of the terrorist attacks targeted police (see Table 11). Specifically, half (*n*= 41) of the countries in the sample had no terrorist attacks on police, while the other half (*n*= 41) had a proportion of terrorist attacks against police that was greater than zero. The proportion of fatal terrorist attacks targeting police ranged from 0 to 0.667 in this sample, meaning some countries experienced no fatal terrorist attacks targeting police while in one country two-thirds of the terrorist attacks involving fatalities targeted police. The average country in this sample had a proportion of 0.078 (median 0.003) attacks on police and 0.077 (median 0.000) fatal attacks involving police. Fifty-three countries had no fatal terrorist attacks against police, while 29 countries had a proportion of fatal attacks targeted against police that was greater than zero. Looking at Figures 10 and 11, the distribution of the proportions of terrorist attacks on police and fatal attacks involving police depict such terrorist incidents as rare events in the countries sampled.

Descriptive statistics for the independent variables also are presented in Table 11. On average, more than half of the citizens have a great deal or quite a lot of Confidence in the Police ($\bar{x}$ = 56.815%, *s*= 19.961), although the percent of citizens having confidence in the police varied greatly among the countries sampled, ranging from a low of about 16% to a high of 92%. The state legitimacy indicators tell a

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similar story. On average, about half of the citizens have at least some confidence in the civil services ($\bar{x}$ = 45.807%, s= 18.417), the national government ($\bar{x}$ = 46.768%, s= 18.417), and the justice system ($\bar{x}$ = 52.479%, s= 19.503), although the countries in this sample had a wide range of responses, from less than 10% to more than 95% of citizens having confidence in these agencies. Refugees (in millions) is highly skewed ($\bar{x}$ = 19.965, median= 0, s= 60.397), ranging from 0 to 340. More than two-thirds of citizens in the average country believed tax fraud is never justified ($\bar{x}$ = 71.911%, s= 13.550), and less than half reported they would never engage in a legal protest ($\bar{x}$ = 45.958%, s= 17.620). Turning to the other independent variables, on average the countries sampled had a moderate amount of societal schism ($\bar{x}$ = 3.085, s= 2.205). Less than one-quarter (24%) of the countries sampled had foreign military on their soil between 1999 and 2008, perhaps because few countries were involved in inter-state or civil war (15% and 17%, respectively). Police Per Capita ranged from a censored 0 (see Appendix B for more information on the imputed data) to about 835 police officers per 100,000 people ($\bar{x}$ = 294.675, s= 177.005).

INSERT TABLE 11 ABOUT HERE.

As shown in Table 11, most (73%) of the countries sampled were democratic and a small portion (9%) was autocratic, leaving the remaining 18% anocratic. The Gross Domestic Product (in thousands) ranged in the sampled countries from $0.175 to $43.420 and is positively skewed ($\bar{x}$ = 9.696, median= 3.716, s= 11.937). While GDP indicates some sample countries are wealthy, economic inequality ranged from 14.4 to 65.0 (recall a higher Gini Index corresponds to higher inequality), averaging about 37 (s= 9.127).

The homicide rate ranged in the sample countries from 0.2 to 69.0, and is positively skewed ($\bar{x}$ = 9.055, median= 3.650, s= 11.969). Turning to another measure of violence, regional terrorism (minus the country's total terrorism directed toward any target) averaged about 1456 incidents (s= 1660.178), with some countries located in regions with little terrorism and others in regions with a great deal of terrorism during this time period (range 18-6213). More than two-thirds (70%) of the countries sampled have abolished the death penalty either in law or in practice.

On average, countries were moderately corrupt ($\bar{x}$ = 4.686, s= 2.382), ranging from a great deal of corruption (1.2) to not at all corrupt (10.0). Finally, countries varied in size, with population density ranging from 2.7 to 1120.1 ($\bar{x}$ = 120.512, s= 153.001).

State Legitimacy Factor Results

The literature indicates that state legitimacy is comprised of three elements: views of legality (i.e., the state follows the rules), views of justification (i.e., the state has the moral right to rule), and acts of consent (i.e., citizens actively acknowledge the state has the right to rule). As described earlier, six variables are used here to tap into each element (i.e., *views of legality*: confidence in the government, confidence in the civil services, confidence in the justice system; *views of justification*: Refugees; *acts of consent*: Against Tax Fraud, Never Protest). Because six variables are used to measure one latent construct – state legitimacy – factor analysis is the appropriate analytical tool.

The Kaiser-Meyer-Olkin measure of sampling adequacy of 0.715 (considered "middling", see Kim & Mueller, 1978, citing Kaiser, 1974) and Bartlett's test of

sphericity ($\chi^2 = 103.41$, $df = 15$, $p = 0.000$), both computed using PASW (i.e., SPSS version 18), confirmed that factor analysis is appropriate with the variables described earlier. While ideally the sample size would be larger (i.e., over $n = 200$; Comrey & Lee, 1992), factor analysis assumptions are met: interval-level data are used and examination of scatterplots indicated an arguably linear relationship between each variable pair.

While maximum likelihood factor analysis is ideal, its assumptions were not met. The Refugees variable is highly skewed (most countries in the sample had no refugees) and transformation attempts (i.e., log) did not reduce the skewness. Because the inclusion of the skewed Refugees variable violates the multivariate normal distribution assumption of maximum likelihood factor analysis, principal axis factoring factor analysis was used. Recall that principal axis factor analysis has less stringent assumptions than maximum likelihood factor analysis in that principal axis factor analysis does not assume a multivariate normal distribution (Costello & Osborne, 2005).

Another issue to consider before moving forward with the principal axis factor analysis is missing data. As is common in comparative research, missing data is present on four of the six legitimacy variables, as summarized in Table 10. Listwise deletion would reduce the sample size from 82 to 63, which is undesirable, given the already low statistical power. Accordingly, to address the missing data issue on the legitimacy indicators, both multiple imputation and mean substitution were used. For convenience, the results for the mean substitution are reported; the few differences

between these analyses and analyses using the multiple imputation dataset are noted where appropriate.[47]

Principal axis factoring factor analysis was computed in PASW (i.e., SPSS version 18). A scree plot (see Figure 13) suggested a one or two factor solution, contrary to expectations. As shown in Table 12, the eigenvalue for a one factor model was 2.563, explaining nearly 43% of the variance; the next largest eigenvalue was 1.043, explaining about 17% of the variance; and all further eigenvalues were below the commonly accepted 1.0.[48] Additionally, not all variables loaded onto one factor. (See Figure 14.) On the first factor, factor loadings exceeded 0.70 for confidence in the government, confidence in civil services and confidence in the justice system. However, Refugees had a factor loading greater than 0.60 on the second factor; both Against Tax Fraud and Never Protest did not load at all (factor loadings were less than 0.30 on each factor).[49] While the anticipated one factor solution was not supported by the data, these results do seem to indicate three separate elements of state legitimacy, as suggested by the literature.[50]

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[47] The results of the mean substitution sample are noted for ease of presentation. Stata's `mim` command would not report results for a factor analysis across the imputed samples. As indicated in Appendix B, 40 imputation samples were generated in Stata 10; discussion of results would be more complicated than simply presenting the results of the mean substitution sample. That said, results of factor analyses in several of the imputed samples are noted.

[48] Principal axis factor analysis was computed on over one-quarter ($n= 12$) of the multiple imputed datasets. The analyses on the multiple imputed samples suggested a one-factor solution, as the largest eigenvalue ranged from 2.11 to 2.24 and the next largest eigenvalue ranged from 0.24 to 0.30. The proportion of variance explained by the first factor ranged from 1.01 to 1.05; the variance explained by the second factor ranged from 0.12 to 0.14.

[49] Promax rotation, an oblique rotation method which allows multiple factors to be correlated, showed no substantive differences from the unrotated results.

[50] This was more clearly shown across the factor analyses in the multiple imputed dataset, where the promax rotation again showed the views of legality variables (i.e., confidence in the government, confidence in the civil services and confidence in the justice system) load onto one factor. The highest loading for Refugees was about 0.43 on a second factor, and the highest loadings for the acts of consent variables (i.e., percent of citizens reporting that tax fraud is never justified and percent of people who would never engage in a legal protest) was on a third variable, although the factor loadings of these latter two variables never exceeded 0.37 across the 12 samples analyzed.

A second principal axis factoring factor analysis was computed with only the *views of legality* variables (i.e., confidence in the government, confidence in civil services and confidence in the justice system) because these three variables loaded onto one factor and because a minimum of three variables are needed for factor analysis.[51] (The other three variables are included separately as indicators of legitimacy in the following analyses.) The eigenvalue for a one-factor solution was 2.341; the next highest eigenvalue was 0.400. The variance explained by one factor was 78.03%, and the scree plot suggested a one factor solution (results not shown). Further, all three variables loaded onto one factor and all loadings were greater than 0.700. Accordingly, factor scores were computed. Ranging from -2.240 to 2.560, the *views of legality* factor had a mean of 0.000 and a median of -0.110 (s= 0.938). To ensure that this factor measures what it purports to measure, validity tests were conducted.

Validity tests

Validity of the *views of legality* factor and the three other state legitimacy indicators (i.e., Refugees, Against Tax Fraud and Never Protest) was assessed through both discriminant and convergent validity tests. The discriminant validity test expects a weak correlation between the state legitimacy indicators and concepts

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[51] Again, the Kaiser-Meyer-Olkin measure of sampling adequacy of 0.719 (still considered "middling", see Kim & Mueller, 1978, citing Kaiser, 1974) and Bartlett's test of sphericity (χ^2= 89.49, df= 3, p= 0.000) indicated factor analysis was appropriate.

with which it is thought to be unrelated, like population. The number of people living

in a country should have nothing to do with how those people perceive the legitimacy

of the state (Gilley, 2006). As shown in Table 13, correlations between the state

legitimacy indicators and Population Density range from $r= 0.035$ (Refugees) to $r=$

0.267 (*views of legality* factor). Against Tax Fraud and Never Protest are weakly

correlated with Population Density ($r= 0.177$ and $r= 0.132$, respectively), as is

Refugees. However, the correlation between the *views of legality* factor and

Population Density is statistically significant, which is contrary to expectations.

INSERT TABLE 13 ABOUT HERE.

The convergent validity test gauges how well state legitimacy is related to

other concepts with which it is expected to be correlated. For example, state

legitimacy is thought to be related to corruption, as people find corrupt governments

less legitimate (see, e.g., Anderson & Tverdova, 2003; Seligson, 2006). The state

legitimacy indicators are weakly to moderately correlated with Corruption. The *views*

of legality factor is more strongly correlated with Population Density ($r= 0.267$) than

with Not Corrupt ($r= 0.044$). Against Tax Fraud also is weakly correlated with Not

Corrupt and in the opposite direction than that predicted ($r= -0.024$), suggesting that a

greater percentage of people report cheating on taxes is never acceptable in countries

that are more corrupt.[52]   Not Corrupt is moderately related to both Refugees ($r=$

-0.233, $p= 0.036$) and Never Protest ($r= -0.354$, $p= 0.001$); both relationships are

statistically significant. However, these correlations offer mixed conclusions, as the

correlation coefficients are negative, meaning people fled the country but reported

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[52] Recall that a high score on the Not Corrupt variable indicates little corruption; conversely, a low
score on the Not Corrupt variable indicates high corruption.

never protesting in regimes with high corruption. This offers weak support for the state legitimacy indicators.

Taken together, some of the results are consistent with the divergent and convergent validity tests, while some results are not. Perhaps this is because the bulk of the indicators are survey measures and citizens in more repressive regimes may believe they will be punished for survey responses that are negative toward the government.[53] To explore which countries may be driving the legitimacy indicators, the next sections examines which countries rank most and least legitimate according to these indicators.

Ranking state legitimacy indicators

The scant empirical research on comparative state legitimacy indicates that Nordic countries (like Sweden, Denmark, Finland and Norway) and western democracies are among the most legitimate countries (Gilley, 2006, 2009). To assess whether this holds true here, the countries were ranked by each state legitimacy indicator. First, Table 14 shows the *views of legality* factor ranked by country. While the Nordic countries rank relatively high on the *views of legality* factor, they are outranked by Vietnam, Bangladesh, China, Jordan, Malaysia and Tanzania. Canada, the United Kingdom and the United States fall toward the middle of this list, ranking 32, 41 and 45, respectively. This was unexpected.

INSERT TABLE 14 ABOUT HERE.

To explore what may be driving these seemingly odd rankings, individual rankings of each of the three indicators (i.e., confidence in the civil services,

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[53] Interaction terms of the legitimacy variables and Autocratic were created and added to the models presented below (results not shown). None of the interaction terms reached significance.

confidence in the national government and confidence in the justice system) are presented in Table 15. The people of Vietnam, China and Bangladesh have the most confidence in their government and civil services; Vietnam and China also have high confidence in the justice system. Uganda and Rwanda, countries known for genocide, have high confidence in the *views of legality* measures, too. Peru, Argentina, Lithuania and Macedonia fall toward the bottom of each confidence ranking. Greece, recently in the news for financial issues, ranks 79th in confidence in civil services and 46th in confidence in the justice system (no value was recorded by the WVS for confidence in the national government). Norway, Finland and Denmark rank in the top ten confidence in the justice system, and Sweden ranks tenth in confidence in the civil services. Western countries (e.g., Canada, France, the United Kingdom) fall toward the middle of these rankings. For example, the Netherlands ranks 65th in confidence in civil services, 64th in confidence in the government and 45th in confidence in the justice system.

INSERT TABLE 15 ABOUT HERE.

Taking these rankings into consideration and thinking back to the possible error introduced by methods to replace missing values, perhaps the best way to capture confidence is by taking the average of the three variables for each country. Because these three variables are highly correlated, giving each variable an equal weight is acceptable.[54] Taking the average confidence score for each country preserves the interpretation and may be a better way to deal with missing data (instead of mean substitution or multiple imputation, both of which introduce

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[54] Confidence in civil services is highly correlated with confidence in government ($r= 0.742$) and with confidence in the justice system ($r= 0.730$). Confidence in government also is strongly correlated with confidence in the justice system ($r= 0.673$).

unknown error). Accordingly, the confidence variables were combined into one variable ("Mean State Confidence") representing the mean of confidence in the civil services, the government and the justice system ($\bar{x}$ = 48.434, median= 46.842, s= 16.885); the combined rankings are presented in Table 16. This new "Mean State Confidence" variable is used in analyses.

INSERT TABLE 16 ABOUT HERE.

The rankings of the other legitimacy indicators are presented in Tables 16, 17 and 18. Croatia, Vietnam, Colombia, China and Morocco have the highest number of Refugees (see Table 17); while Vietnam and China are among the "most legitimate" by the Mean State Confidence (see Table 16), they are among the "least legitimate" according to the Refugees indicator. Turning to the next legitimacy indicator, the percentage of citizens who believe cheating on taxes is never justifiable (see Table 18) is highest in Bangladesh, Pakistan, Turkey, Ethiopia and Indonesia; again, the Nordic countries fall toward the middle of the ranking. Similarly, the percentage of citizens who report they would never protest (see Table 18) is highest in Guatemala, Jordan, Pakistan, Thailand, Egypt, and Vietnam, outranking Finland (ranked 31), Switzerland (ranked 58), Denmark (ranked 64), and Norway (ranked 72). These rankings imply low face validity for each indicator; further validity tests confirm the low validity of these indicators, as the Mean State Confidence variable is more highly correlated with Population Density (r= 0.241) than with Not Corrupt (r= 0.097).

INSERT TABLE 17 ABOUT HERE.

INSERT TABLE 18 ABOUT HERE.

Recall that these variables (with the exception of Refugees) are survey measures. While some of these countries (e.g., Uganda, Rwanda) achieve unexpectedly high legitimacy, this could be due to citizens socialized to support the government. Countries like Uganda and Rwanda may not have international legitimacy, but seem to have within-country legitimacy. Western countries may be more critical of the government because citizens have more freedom of speech. Whether there is something else at play is outside the scope of this dissertation, but is an interesting question for scholars to explore. Because this dissertation relies on citizens' views of state legitimacy instead of outsiders' opinions, the legitimacy indicators (i.e., Mean State Confidence, Refugees, Against Tax Fraud, Never Protest) were used in the analyses that follow.

Predictors of the Proportion of Terrorist Attacks on Police

Multicollinearity

Before reporting the results of the regression models, the bivariate correlation matrix was reviewed to assess possible multicollinearity among the predictor variables (see Table 19). Most important, the police legitimacy variable is highly correlated with the Mean State Confidence variable ($r = 0.706$). Accordingly, police legitimacy is included in models separate from the state legitimacy variables.

INSERT TABLE 19 ABOUT HERE.

Among the control variables, the highest correlation is between GDP and Not Corrupt ($r = 0.866$), indicating possible collinearity. GDP also is moderately correlated with Confidence in Police ($r = 0.512$), Gini Index ($r = -0.401$), and

Homicide ($r= -0.394$). Because of these relatively high correlations, GDP is removed

from the models reported below and any differences with GDP are noted.

Additionally, Gini Index and Homicide also are highly correlated ($r= 0.687$). Models

are run with and without each variable, and any differences are noted.

Proportion of attacks on police

The first set of Tobit models uses the dependent variable measuring the

proportion of terrorist attacks against police; these results are presented in Table 20.[55]

Model 1 includes only Confidence in Police (the proxy for police legitimacy).[56]

While the coefficient is in the predicted direction (i.e., the proportion of terrorist

attacks on police increases when the percent of citizens who have confidence in the

police decreases), the relationship likely is due to chance alone ($\hat{\beta}= -0.0009$, $t=$

-0.078, $p= 0.219$).[57] The CLAD analysis, which has less restrictive assumptions than

Tobit regression, confirms this finding ($\hat{\beta}= -0.0006$, $s_{\bar{x}}= 0.0009$, $t= -0.699$, $p> 0.05$,

$n= 80$).

INSERT TABLE 20 ABOUT HERE.

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[55] The Tobit model assumptions – namely, that the errors are normal and homoskedastic (Long, 1997) – seem to be met in models using the proportion of terrorist attacks on police as the dependent variable, despite its skew. Both the Breuch-Pagan test and White's test indicate homoskedasticity in all models using the proportion of terrorist attacks on the police as the dependent variable. Inspection of the distribution of the error terms and the normal probability plot indicate the error terms are mound shaped with a slight skew to the right for models using either dependent variable. However, models using the proportion of fatal terrorist attacks against police as the dependent variable violate the assumption of homoskedasticity. Accordingly, I remain cautious while interpreting the hypothesis tests.

[56] The Stata command `craggit` was used to compute Cragg's model with Tobit, which is nested within Cragg's double-hurdle model (see Burke, 2009). The results suggested Tobit analysis is identical to Cragg's (1971) alternative, and therefore Tobit is appropriate for Model 1.

[57] To test for a nonlinear relationship, Confidence in Police was squared. With the inclusion of this squared term, the sign of the Confidence in Police variable switched direction, becoming positive ($\hat{\beta}= 0.0094$, $t= 1.44$). Both the Confidence in Police variable and its squared term ($\hat{\beta}= -0.0001$, $t= -1.59$) failed to reach significance.

Model 2 again considers this relationship, but includes the control variables.[58] Again, there is no significant relationship between police legitimacy and the proportion of terrorist attacks on police ($\hat{\beta} = 0.0009$, $t= 0.061$, $p= 0.272$), but notice that the sign of the coefficient switches. The Gini Index coefficient ($\hat{\beta} = 0.0083$, $t= 2.34$, $p= 0.011$) and Not Corrupt ($\hat{\beta} = -0.0274$, $t= -1.72$, $p= 0.045$) reach significance in the expected direction. For each unit increase on the economic inequality scale, the proportion of terrorist attacks on police is expected to increase by 0.0042 units, holding all other variables constant.[59] Similarly, for each additional unit increase on the corruption scale (approaching less corruption), the proportion of terrorist attacks on police is expected to decrease by 0.0139, controlling for other variables. (Homicide also would approach significance in a two-tailed test, as its sign is in the opposite direction than that predicted: the higher the homicide rate in a country, the smaller proportion of terrorist attacks against police.) Additionally, Interstate War approaches significance ($\hat{\beta} = 0.1020$, $t= 0.57$, $p= 0.065$): states involved in wars with other states have a higher proportion of terrorist attacks on police than states not involved in war.[60]

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[58] Tobit analysis is appropriate for Model 2, as a comparison to Cragg's double-hurdle model indicated non-significant differences.

[59] To interpret these results, the Tobit coefficients are multiplied by the average predicted probability of being uncensored. For this model, the average predicted probability of being uncensored is 0.5060.

[60] Including GDP in this model, all coefficients remain the same, but the standard error of Not Corrupt increases (from 0.015 to 0.022). Gini Index and Homicide remain significant predictors of the proportion of terrorist attacks directed against the police and Interstate War remains marginally significant ($p= 0.064$), but Not Corrupt is no longer significant ($p= 0.109$). Without Gini Index (and excluding GDP), Not Corrupt remains significant and Interstate War remains marginally significant. Interestingly, the coefficient for Homicide decreases (from -0.0044 to -0.0005); consequently, Homicide is no longer significant. On the other hand, the coefficient for Death Penalty increases (from 0.0259 to 0.0703), and Death Penalty becomes marginally significant ($p= 0.09$). Including Gini Index but removing Homicide (and excluding GDP) the Gini Index coefficient decreases (from 0.0083 to 0.0045) and is now marginally significant (instead of significant: $p= 0.052$). The p-value for Not

This model was replicated using CLAD, but would not converge with the inclusion of several control variables (regime type measures, Interstate War and Population Density). This may be due to collinearity, but none of the correlations was greater than $r = 0.15$. Nevertheless, these variables were excluded in the CLAD robustness check.[61] CLAD results are based on a sample of 50 cases, and no variable was significant. Specifically, the Gini Index ($\hat{\beta} = 0.0028$, $s_{\bar{x}} = 0.0068$, $t = 0.42$, $p > 0.05$) and Not Corrupt ($\hat{\beta} = -0.0194$, $s_{\bar{x}} = 0.0315$, $t = -0.61$, $p > 0.05$) no longer reached statistical significance, which may be expected given the smaller sample size and lower statistical power. The signs of the coefficients of each variable remained the same in the CLAD model as they were in the Tobit model. The magnitude of the coefficients was smaller in the CLAD model than in the Tobit model (except for Not Corrupt, which was approximately the same in the CLAD model as in the Tobit model), and CLAD produced larger standard errors. Confidence in Police, for example, failed to reach significance using either statistical test, with the CLAD model having a smaller coefficient and larger standard error ($\hat{\beta} = 0.0003$, $s_{\bar{x}} = 0.0026$, $p > 0.05$) than the Tobit model including the same predictor variables ($\hat{\beta} = 0.0004$, $s_{\bar{x}} = 0.0014$, $p > 0.05$).

Model 3 adds the other possible explanations: Societal Schism, Foreign Military Presence and opportunity to attack police (measured by Police Per Capita).[62]

Corrupt increases, making it marginally significant (instead of significant), and the *p*-value for Interstate War decreases, making it significant (instead of marginally significant).

[61] A Tobit regression analysis was performed without these variables. Gini Index remained significant, but Not Corrupt did not. Additionally, Civil War became marginally significant, as its coefficient increased and standard error decreased. No other substantive differences emerged.

[62] Again, Tobit analysis is appropriate here, as a comparison to Cragg's double-hurdle model indicated non-significant differences. In this full model, there are no substantive changes either with or without

Again, the sign of the police legitimacy variable is in the opposite direction (i.e.,

greater citizen confidence in police leads to a higher proportion of terrorist attacks on

police) and remains insignificant – although the p-value ($\hat{\beta} = 0.0019$, $t = 1.27$, $p =$

0.105) moves closer to a $p < 0.10$ cutoff.[63] The CLAD estimator confirmed these

results ($\hat{\beta} = 0.0011$, $s\,\bar{x} = 0.0039$, $t = 0.27$, $p > 0.05$). As shown in Table 20, two of the

three alternative explanations significantly predict the proportion of terrorist attacks

on police: the proportion of terrorist attacks directed against police is expected to

increase by 0.0124 with each unit increase on the Societal Schism scale, holding all

else constant ($\hat{\beta} = 0.0248$, $t = 2.22$, $p = 0.015$) and by 0.0642 when countries have a

foreign military on their soil, controlling for all other variables ($\hat{\beta} = 0.1286$, $t = 2.48$,

$p = 0.008$).[64] Again, the Gini Index is significant ($\hat{\beta} = 0.0630$, $t = 1.84$, $p = 0.036$),

indicating that for each unit increase in relative deprivation, the proportion of terrorist

attacks on police is expected to increase by 0.0314, holding all else constant. Not

Corrupt ($\hat{\beta} = -0.0101$, $t = -0.64$, $p = 0.261$) and Interstate War ($\hat{\beta} = 0.0308$, $t = 0.46$, $p =$

0.322) are no longer significant ($p < 0.10$) predictors.

Again, CLAD would not converge with the inclusion of four variables (regime

type measures, Interstate War and Population Density); CLAD was run without these

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GDP. When Gini Index is excluded (also without GDP), Homicide loses significance. When
Homicide is excluded (also without GDP), Gini index *just* loses significance ($p = 0.102$). It also is
interesting to note that when Regional Terrorism and GDP are excluded from the model, police
legitimacy is significant at $p < 0.10$; the same is true when Civil War and GDP are excluded from the
model.

[63] With the squared police legitimacy term in the model, the coefficient of Confidence in Police would
have approached significance had the sign been in the expected direction ($\hat{\beta} = 0.0085$, $t = 1.37$, $p =$

0.087). The squared term failed to reach significance ($\hat{\beta} = -0.0001$, $t = -1.10$).

[64] As in the previous models, the Tobit coefficients are multiplied by the average predicted probability
of being uncensored so that the results can be interpreted. For this model, the average predicted
probability of being uncensored is 0.4992.

variables. No variable reached statistical significance using the CLAD estimator –

but the sample was reduced to 45 observations in the CLAD analysis, which may

have affected the findings. With the exception of Death Penalty which remained

approximately the same, the coefficients were smaller in magnitude in CLAD than in

Tobit calculated with the same variables, and all of the standard errors were larger in

CLAD. Interestingly, the sign of the Regional Terrorism and Death Penalty

coefficients switched direction: Regional Terrorism became positive in CLAD and

Death Penalty became negative in CLAD. Recall the sample was reduced by almost

half using CLAD, which may account for these differences.

In the interest of parsimony, irrelevant variables are systematically removed

from the model according to the following process. The p-values were very high for

Regional Terrorism and Population Density, suggesting these variables are unrelated

to the proportion of terrorist attacks on police. An F-test indicated these two

variables add nothing to the model ($F(2,1000)= 0.02$, $p= 0.982$). Also, recall that

Regional Terrorism is a measure of violence, which is covered by other variables in

the model (i.e., Civil War, Interstate War, Homicide, and Death Penalty). Population

Density is a control variable; it is not theoretically relevant. Accordingly, Regional

Terrorism and Population Density were removed from the model. Like Population

Density, Not Corrupt is used as a control variable. Interestingly, Not Corrupt is

moderately correlated with Confidence in Police ($r= 0.5595$), with Homicide ($r=

-0.3982$), with Foreign Military Presence ($r= -0.3800$), with the Gini Index ($r=

-0.3784$), with Anocracy ($r= -0.3693$), with Societal Schism ($r= -0.3498$) and with the

Death Penalty ($r= -0.3377$). Accordingly, there may be some issues with

multicollinearity here. Additionally, there are several measures of violence that may be excluded from the model. Homicide seems to be the only violence measure that contributes to understanding the proportion of terrorist attacks against the police, as removing it slightly alters some results (see Footnotes 60 and 62). Civil War, Interstate War, the Death Penalty and Not Corrupt can be removed, as they do not contribute to the model ($F(4,1000)= 0.56$, $p= 0.689$).

Model 4 presents the results of the more parsimonious model.[65] There is little change in the value of the coefficients and in the standard errors; consequently the substantive results remain the same: greater societal schism, the presence of a foreign military and greater relative deprivation increase the proportion of terrorist attacks against police. This is interesting because without GDP and either Regional Terrorism or Civil War, police legitimacy approaches significance (see Footnote 62); removing these and other control variables in Model 4 did not produce the same results. In other words, police legitimacy had no significant influence on the proportion of terrorist attacks on police. The CLAD estimator – using a sample size of 55 – again found no statistically significant variables; Foreign Military Presence and the regime type variables had to be excluded from the model to achieve convergence. (Tobit analysis on Model 4 excluding Foreign Military Presence and the regime type variables produced the same substantive results as those shown in Table 20; that is, Societal Schism and relative deprivation remained significant

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[65] Comparing Tobit to Cragg's double-hurdle model indicated significant differences between the two, suggesting Cragg's double-hurdle model is more appropriate. According to Cragg's alternative, only Societal Schism and Foreign Military Presence (but not relative deprivation) are significant on the first tier, indicating these variables impact whether a country experienced a terrorist attack targeting police between 1999 and 2008; no variables were significant in the second tier (predicting $E(y|Y>0, X)$).

predictors of the proportion of terrorist attacks against the police, while police legitimacy did not.)

Taken together, these results suggest that police legitimacy (as measured by Confidence in Police) may not affect the proportion of terrorist attacks on police. Two of the alternative explanations – Societal Schism and Foreign Military Presence – were significant in every Tobit model (but no variables reached significance in the CLAD models, which may be due to the low power produced by the small sample sizes of the CLAD analyses). Additionally, relative deprivation (as measured by the Gini Index) also seems to be important in the Tobit models (although not in CLAD). Overall, we should not yet discount the first hypothesis; hypotheses 3 and 4 receive some support by these results.

Table 21 presents the second set of models using the dependent variable measuring the proportion of terrorist attacks against police. Instead of police legitimacy, these models use the state legitimacy indicators. Model 5 shows the results including only the state legitimacy indicators to predict the proportion of terrorist attacks on police.[66] While the signs of the Mean State Confidence ($\hat{\beta}$ = -0.0012, t= -0.87, p= 0.193) and the number of Refugees ($\hat{\beta}$ = 0.0001, t= 0.20, p= 0.423) are in the expected direction, Against Tax Fraud ($\hat{\beta}$ = 0.0004, t= 0.22, p= 0.412) and Never Protest ($\hat{\beta}$ = 0.0008, t= 0.64, p= 0.264) are in the opposite direction than that predicted. Similar to the analyses using Confidence in Police, the state legitimacy indicators also are *not* significant predictors of the proportion of terrorist attacks on police in these one-tailed tests. CLAD analysis confirms these results.

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[66] Comparing Tobit to Cragg's alternative showed no significant differences between the two models.

While the magnitude of the coefficients and standard errors are higher on each state

legitimacy indicator using the CLAD estimator, none reaches statistical significance.

Control variables are added to Model 6.[67] With the exception of Refugees, all

of the state legitimacy indicators are in the predicted direction, but the only

significant indicator is the percentage of citizens who would never protest ($\hat{\beta} =$

-0.0028, $t = -1.74$, $p = 0.044$). For each additional percent of the population who

would never protest, the proportion of terrorist attacks on police is expected to

decrease by 0.0014 units, holding all other variables constant.[68] However, none of

the state legitimacy indicators were significant in the CLAD analysis; in fact, the sign

of the coefficients of all state legitimacy indicators, except Mean State Confidence,

switched. That said, the results of the CLAD analysis should be interpreted with

caution, as the sample size was reduced from 82 to 38 observations. Similar to the

previous set of results, relative deprivation (as measured by the Gini Index) is

significant in Model 6 ($\hat{\beta} = 0.0105$, $t = 2.80$, $p = 0.0035$): for each unit increase

(approaching inequality) on the Gini Index, the proportion of terrorist attacks against

the police is expected to increase by 0.0053, holding all else constant. (It should be

noted that Homicide would approach significance in a two-tailed test, as its sign is in

the opposite direction than that predicted.) In this model, Not Corrupt approaches

significance ($\hat{\beta} = -0.0210$, $t = -1.83$, $p = 0.0665$).[69] However, these variables were no

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[67] According to a comparison with Cragg's alternative, Tobit is acceptable. There were no significant differences between analytical methods.

[68] For Model 6, the average predicted probability of being uncensored is 0.5024.

[69] When GDP is included in the model, Not Corrupt is no longer marginally significant. Also, recall that there may be concerns of a possible tautology by including Never Protest. Model 6 remains substantively the same without Never Protest, except Interstate War approaches significance ($\hat{\beta} =$ 0.0965, $p = 0.0835$).

longer significant in the CLAD analysis. CLAD would not converge with the regime type variables and Population Density in the model. With these variables excluded, Death Penalty reached significance in the direction opposite of that predicted ($\hat{\beta} =$ -0.0971, $s_{\bar{x}} = 0.1389$, $t = -0.70$, $p < 0.05$). (Tobit analysis run with the same variables excluded produced the same substantive results as those Tobit results reported for Model 6 above.) Again, the CLAD analysis should be interpreted with caution, as the sample size was reduced to 38.

The other explanations (societal schism, presence of a foreign military and opportunity to attack police) are added in Model 7.[70] The coefficient of Mean State Confidence increases slightly and its standard error decreases; however, with the exception of Never Protest, none of the state legitimacy indicators are significant. Never Protest remains significant and the magnitude of its coefficient increases ($\hat{\beta} =$ -0.0033); Gini Index also remains significant, but the magnitude of its coefficient decreases ($\hat{\beta} = 0.0089$). Not Corrupt is no longer marginally significant, but Civil War is ($\hat{\beta} = 0.0888$, $t = 1.40$, $p = 0.083$). Similar to the previous set of models, Societal Schism and the Foreign Military Presence are significant. For each unit increase on the societal schism scale, the proportion of terrorist attacks directed against the police is expected to increase by 0.1234 units, controlling for the other variables.[71] Similarly, the presence of a foreign military on a country's soil is expected to increase the proportion of terrorist attacks on police by 0.0654, holding

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[70] Again, Tobit is appropriate to use (compared to Cragg's alternative).
[71] The average predicted probability of being uncensored in Model 7 is 0.4934.

all else constant.[72] Checking this model with the CLAD estimates was fruitless,

considering the sample size was reduced from 82 to 27 and the model would not

converge with the inclusion of Interstate War and Not Corrupt. Similar to Tobit

models, Societal Schism ($\hat{\beta} = 0.0433$, $s_{\bar{x}} = 0.0266$, $t = 1.63$, $p < 0.05$) reached

significance using the CLAD estimator; Foreign Military Presence ($\hat{\beta} = -0.1423$, $s_{\bar{x}} =$

0.1324, $t = -1.07$, $p < 0.05$) would reach significance in a two-tailed test, as its

coefficient sign switched direction to that opposite of what was predicted. Unlike

earlier results, the CLAD estimator found Mean State Confidence ($\hat{\beta} = -0.0041$, $s_{\bar{x}} =$

0.0036, $t = -1.15$, $p < 0.05$), Against Tax Fraud ($\hat{\beta} = -0.0055$, $s_{\bar{x}} = 0.0048$, $t = -1.15$, $p <$

0.05) and Regional Terrorism ($\hat{\beta} = 0.00003$, $s_{\bar{x}} = 0.00003$, $t = 0.97$, $p < 0.05$) important

predictors of the proportion of terrorist attacks against the police. Again, these

CLAD results should be taken with a grain of salt, given the small sample size.

For the sake of parsimony, the bivariate correlation matrix again was

scrutinized. (See Table 19.) Focusing specifically on the correlations with the state

legitimacy indicators, the highest correlations were between Never Protest and Death

Penalty ($r = 0.4392$), Mean State Confidence and Regional Terrorism ($r = 0.4206$),

Never Protest and Gini Index ($r = 0.4052$), Mean State Confidence and Police Per

Capita ($r = -0.3803$), Never Protest and Autocracy ($r = 0.3783$), Never Protest and Not

Corrupt ($r = -0.3587$), Refugees and Autocracy ($r = 0.3051$), Never Protest and

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[72] There are no substantive differences with or without GDP. When Never Protest is excluded from the model, the only difference is that Civil War no longer approaches significance. Only Societal Schism and Foreign Military Presence remain significant when the Gini Index variable is removed from the model. Removing Homicide or Population Density decreases the coefficient and slightly decreases the standard error of Civil War, making it insignificant. Otherwise, there are no substantive changes. No matter what variables are included or excluded, Societal Schism and Foreign Military Presence remain significant predictors of the proportion of terrorist attacks against the police.

Regional Terrorism ($r= 0.3279$), and Against Tax Fraud and Regional Terrorism ($r= 0.3051$). A series of F-tests were conducted to determine which sets of control variables contributed the least to the model. After exploring these results, the regime variables (Autocracy and Anocracy), several violence measures (Interstate War, Regional Terrorism, and Death Penalty), and the control variables (Not Corrupt and Population Density) were removed ($F(7,1000)= 0.25$, $p= 0.9716$). Model 8 presents the results of the parsimonious model.[73] As expected, Never Protest, Societal Schism, Foreign Military Presence, and relative deprivation (as measured by the Gini Index) remained significant.[74] Civil War became significant ($\hat{\beta} = 0.0894$, $t= 0.168$, $p= 0.0485$).[75] (Homicide would be significant in a two-tailed test, as its sign is in the opposite direction than predicted.)

<div align="center">INSERT TABLE 21 ABOUT HERE.</div>

In summary, one state legitimacy indicator (Never Protest) approached significance in several Tobit models where control variables were included, offering

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[73] Cragg's double-hurdle model is preferable to Tobit, as there are significant differences between the two analytical methods. According to Cragg's alternative, Foreign Military Presence and Societal Schism are significant predictors and Never Protest and Gini Index are marginally significant predictors of whether a state experienced a terrorist attack targeting the police. (Mean State Confidence, Refugees and Homicide would be marginally significant in a two-tailed test.) However, no variable significantly predicted the expected value of a terrorist attack against the police, given that an attack occurred.

[74] Interestingly, without Gini Index, Never Protest is no longer significant, and Civil War becomes marginally significant ($\hat{\beta} = 0.0820$, $t= 1.26$, $p= 0.071$). Excluding Homicide reduces Never Protest and Gini Index to marginal significance ($\hat{\beta} = -0.0018$, $t= -1.35$, $p= 0.0905$ and $\hat{\beta} = 0.0040$, $t= 1.57$, $p= 0.061$, respectively); Against Tax Fraud switches signs ($\hat{\beta} = 0.0002$, $t= 0.14$, $p= 0.4435$), but it remains insignificant. There are no other substantive changes aside from those mentioned – in other words, Societal Schism and Foreign Military Presence are always significant ($p< 0.05$).

[75] When Never Protest is excluded from the model, the only substantive change is that both the coefficient and standard error of Civil War decrease, making this variable marginally significant ($\hat{\beta} = 0.0755$, $t= 0.143$, $p= 0.079$).

some support to hypothesis 2.[76] Additionally, societal schism and presence of a

foreign military again were significant in the expected direction for all Tobit models.

Accordingly, hypothesis 3 and hypothesis 4 were confirmed. Among the control

variables, relative deprivation was most consistent, approaching significance in most

Tobit models. The next section confirms whether these results are upheld with

another measure of terrorist attacks on police: proportion of fatal terrorist attacks

directed against police.

Proportion of fatal attacks on police

Recall that a danger in using media reports to collect data (as the GTD does)

is the possibility that some events may not be covered. To increase the likelihood that

the terrorist event was reported by the media and, in turn, included in the GTD, the

next set of models replicates Models 1-8, but using the proportion of *fatal* terrorist

attacks targeted against police as the dependent variable. Results of the Tobit

analyses are reported in Table 22. The CLAD estimator would not converge with any

model with this dependent variable. Accordingly, only the Tobit results are discussed

for the rest of this section. However, because these Tobit models violate the

assumption of homoskedasticity (see Footnote 55), these results should be interpreted

with caution.

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[76] To determine whether a nonlinear relationship exists between the state legitimacy indicators and the proportion of terrorist attacks against the police, Mean State Confidence, Against Tax Fraud and Never Protest each were squared and added to the models reported. None of the results changed with the inclusion of these squared terms; in other words, there is no relationship – linear or nonlinear – between state legitimacy and the proportion of terrorist attacks against police.

Following the analyses for the other dependent variable, Model 9 includes only the police legitimacy measure.[77] Here, police legitimacy (measured as Confidence in Police) is significant in the expected direction ($\hat{\beta}$ = -0.0039, t= -1.94, p= 0.028). For each additional percent of citizens who have at least some confidence in the police, the proportion of fatal terrorist attacks directed at the police is expected to decrease by 0.0014.[78]

<center>INSERT TABLE 22 ABOUT HERE.</center>

However, this relationship did not hold when control variables were added in Model 10.[79] In fact, the sign changes direction ($\hat{\beta}$ = 0.0006, t= 0.29, p= 0.3855). Similar to earlier models, relative deprivation (as measured by the Gini Index) is significant ($\hat{\beta}$ = 0.0179, t= 3.01, p= 0.002); for each unit increase on the Gini Index (toward perfect economic inequality), the proportion of fatal terrorist attacks against police is expected to increase by 0.0064.[80] (Homicide also would reach significance in a two-tailed test, as its sign is in the opposite direction than that predicted.) Interstate War and Not Corrupt are significant predictors ($\hat{\beta}$ = 0.2388, t= 2.17, p= 0.0165 and $\hat{\beta}$ = -0.0894, t= -3.13, p= 0.0015, respectively). Involvement in war with other countries increases the expected proportion of fatal terrorist attacks on police by 0.0858, holding all else constant. Each unit increase on Transparency International's Corruption Perceptions Index (approaching corruption-less states) is expected to

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[77] Tobit was not significantly different from Cragg's alternative and is acceptable to use here.
[78] Similar to the previous set of models, the Tobit coefficients are multiplied by the average predicted probability of being uncensored so that the results can be interpreted. For Model 9, the average predicted probability of being uncensored is 0.3631.
[79] Cragg's alternative is comparable to Tobit, so the latter is used here.
[80] The average predicted probability of being uncensored in Model 10 is 0.3592.

<center>144</center>

decrease the proportion of fatal terrorist attacks against police by 0.0321 unit,

controlling for the other variables. (In a two-tailed test, this model would indicate

that, on average, both autocratic governments and anocratic governments have lower

proportions of fatal terrorist attacks on police, compared to democratic governments,

holding all else constant ($\hat{\beta}$ = -0.1892, t= -1.32, p= 0.0950 and $\hat{\beta}$ = -0.1681, t= -1.79,

p= 0.0390, respectively)).

Because police legitimacy and Not Corrupt are moderately correlated (r=

0.5586), Model 10 was run without Not Corrupt (results not shown). Interestingly,

police legitimacy again is significant ($\hat{\beta}$ = -0.0039, t= -1.92, p= 0.0295) when Not

Corrupt is removed from Model 10. Specifically, for each additional percent of

citizens who have at least some confidence in police, the proportion of fatal terrorist

attacks against the police is expected to decrease by 0.0014, holding all else

constant.[81] Removing Not Corrupt affects other variables, too. Regime type no

longer reaches significance. Interstate War is not significant; instead, Civil War

becomes an important predictor of fatal attacks on police ($\hat{\beta}$ = 0.1187, t= 1.89, p=

0.0315). Gini Index remains significant. The effect of Not Corrupt seems to be

limited to this dependent variable; removing Not Corrupt from Model 2 (using the

proportion of fatal and nonfatal terrorist attacks on the police as the dependent

variable) produced no substantive differences from the results reported in Table 20.

The alternative explanations are added to Model 11.[82] These results tell a

similar story: police legitimacy does not seem to influence the proportion of fatal

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[81] For Model 10 excluding Not Corrupt, the average predicted probability of being uncensored is
0.3516.
[82] Tobit and Cragg's alternative were not significantly different, so Tobit is reported here.

terrorist attacks against police and, again, the sign is in the opposite direction

(removing Not Corrupt produced no substantive changes like those in Model 10). On

the other hand, Societal Schism ($\hat{\beta}= 0.0768$, $t= 2.91$, $p= 0.0000$), Foreign Military

Presence ($\hat{\beta}= 0.1023$, $t= 1.54$, $p= 0.064$), relative deprivation ($\hat{\beta}= 0.0161$, $t= 2.97$,

$p= 0.0020$) and Not Corrupt ($\hat{\beta}= -0.0640$, $t= -2.53$, $p= 0.0070$) significantly influence

the proportion of fatal attacks on police, as predicted.[83] For each unit increase in

societal schism, the proportion of fatal attacks on police is expected to increase by

0.0275, holding all else constant. The presence of a foreign military is expected to

increase the proportion of fatal attacks on police by 0.0366, controlling for all other

variables.[84] (Homicide also would be significant, if this were a two-tailed test; states

with more homicides have a smaller proportion of fatal terrorist attacks directed

toward police.)[85]

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[83] Interestingly, when Autocracy is removed, the coefficient of Foreign Military Presence decreases (but its standard error remains the same), and it no longer is marginally significant. Societal Schism, Gini Index and Not Corrupt remain significant. (Homicide still would be significant in a two-tailed test, as its sign is in the opposite direction.) The coefficient of Civil War increases (accompanied by a slight increase in its standard error), moving it close to significance ($p= 0.1035$), and the Death Penalty becomes marginally significant ($p= 0.066$). When Anocracy is removed, there are no substantive differences.

[84] The average predicted probability of being uncensored in Model 11 is 0.3576.

[85] Recall that Gini Index and Homicide are correlated ($r= 0.6868$), so models were run excluding each variable. Without Gini Index, Societal Schism and Not Corrupt remain significant and Foreign Military Presence remains marginally significant. (Homicide becomes only marginally significant – in the opposite direction.) The coefficient of police legitimacy drops quite a bit; it remains insignificant. (If the predictions were opposite or if these were two-tailed tests, both regime type and Population Density would matter, as the signs of the coefficients are in directions opposite of that predicted. Compared to democracies, both autocratic and anocratic governments have lower proportions of fatal terrorist attacks on police ($\hat{\beta}= -0.2036$, $t= -1.49$, $p_{(one\text{-}tailed)}= 0.0700$ and $\hat{\beta}= -0.1573$, $t= -1.70$, $p_{(one\text{-}tailed)}= 0.0470$, respectively). Countries with larger population densities have fewer fatal terrorist attacks targeting the police ($\hat{\beta}= -0.0003$, $t= 1.40$, $p_{(one\text{-}tailed)}= 0.0825$).) Removing Homicide increases the coefficient and standard error of Foreign Military Presence, but it remains only marginally significant ($\hat{\beta}= 0.1200$, $t= 1.63$, $p= 0.054$). Gini Index's coefficient decreases (from 0.016 to 0.006), as does its standard error, making Gini Index only marginally significant ($p= 0.098$). Not Corrupt remains significant, although the magnitude of its coefficient decreased (from -0.0640 to -0.0471). No other substantive changes were noted (i.e., Societal Schism remained statistically significant).

In the interest of parsimony, several irrelevant variables were removed. A series of F-tests indicated that the regime type variables (i.e., Autocracy and Anocracy), two violence measures (i.e., Regional Terrorism and Death Penalty) and Population Density did not contribute much to the model ($F(5,1000)$= 1.22, p= 0.2988). These variables were removed in Model 12, the parsimonious model.[86] Removing the irrelevant variables from the model produced no substantive changes in the independent variables. The coefficient of Confidence in Police ($\hat{\beta}$ = 0.0006, t= 0.28, p= 0.3915) is similar to the coefficient in Model 10 (police legitimacy plus control variables) and does not influence the proportion of fatal attacks on police. Societal Schism still is significant ($\hat{\beta}$ = 0.0742, t= 3.91, p= 0.0000) and Foreign Military Presence remains marginally significant ($\hat{\beta}$ = 0.1017, t= 1.48, p= 0.0715). The magnitude of the Not Corrupt coefficient decreases by half ($\hat{\beta}$ = -0.0362, t= -1.62, p= 0.0550); it is now marginally significant. (Homicide still would be significant in a two-tailed test, as its sign remains in the opposite direction.) While removing Not Corrupt in Model 10 allowed a significant relationship between police legitimacy and the proportion of fatal attacks on police, it does not have the same impact in this parsimonious model. In fact, the only substantive effect of removing Not Corrupt from Model 12 is that Civil War becomes significant (p= 0.027).

The final set of models uses the state legitimacy indicators to measure legitimacy instead of the Confidence in Police variable, still using the proportion of fatal terrorist attacks on police as the dependent variable. (See Table 23.) The only important state legitimacy indicator was the Mean State Confidence, which was

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[86] Tobit and Cragg's alternative are not significantly different; the use of Tobit is acceptable here.

marginally significant ($\hat{\beta}$= -0.0033, t= -1.36, p= 0.0885).[87] For each additional

percent of Mean State Confidence, the proportion of fatal terrorist attacks directed

against the police is expected to decrease by 0.0012, holding all else constant.[88]

Notably, an F-test failed to reach significance ($F(4,1000)$= 0.71, p= 0.5841),

indicating these state legitimacy alone do not contribute much to understanding the

proportion of fatal terrorist attacks directed against the police.

<center>INSERT TABLE 23 ABOUT HERE.</center>

Control variables are added to Model 14, and the marginally significant

relationship between the Mean State Confidence and fatal attacks on police

disappears.[89] Notably, the sign of the Mean State Confidence coefficient switches

direction and is no longer marginally significant.[90] While the sign of the Refugee

coefficient is in the expected direction, it is not significant, nor is the percent of

people who are Against Tax Fraud (the sign of this coefficient is in the opposite

direction of that predicted). Only one legitimacy indicator is significant and in the

expected direction: Never Protest. For each additional percent of citizens who report

they would never protest, the proportion of fatal terrorist attacks against the police is

expected to decrease by 0.0022.[91] (Interestingly, when Not Corrupt is removed,

Mean State Confidence approaches significance ($\hat{\beta}$= -0.0035, t= -1.45, p= 0.076) and

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[87] The Tobit model was not significantly different from Cragg's alternative, indicating Tobit is acceptable here. Removing Never Protest slightly decreases both the coefficient and standard error of Mean State Confidence, but this variable remains marginally significant. There are no substantive changes when Never Protest is excluded from the model.

[88] The average predicted probability of being uncensored for this model is 0.3626.

[89] Tobit and Cragg's double-hurdle model were not significantly different, suggesting Tobit is acceptable here.

[90] Without Never Protest, the sign of Mean State Confidence is in the expected direction, but still not significant. The only substantive change to Model 14 without Never Protest is that Civil War is no longer significant.

[91] In Model 14, the average predicted probability of being uncensored is 0.3605.

<center>148</center>

Never Protest remains significant.)[92] Relative deprivation is significant, as is Not

Corrupt. (Homicide would be significant in a two-tailed test, as its sign is in the

opposite direction: countries with a higher homicide rate have lower proportions of

fatal attacks on police.) For each unit increase on the Gini Index (approaching perfect

inequality), the proportion of fatal terrorist attacks against the police is expected to

increase by 0.0077, holding all else constant.[93] For each unit increase on the

Corruption Perceptions Index (approaching less corruption), the proportion of fatal

attacks on police is expected to decrease by 0.0310, holding all else constant. (If this

was a two-tailed test or if the expected direction were opposite, regime type would

matter – specifically Anocracy approaches significance. Compared with democratic

regimes, autocratic states have a lower proportion of fatal attacks on police.) War

also is important, as Civil War is marginally significant ($p < 0.10$) and Interstate War

reaches significance ($p < 0.05$). Controlling for the other variables in the model,

involvement in civil wars and wars with other states is expected to increase the

proportion of fatal terrorist attacks targeting police by 0.0509 and 0.0732,

respectively. These results also are presented in Table 23.[94]

Model 15 also includes the alternative explanations (societal schism, presence

of a foreign military and opportunity, measured by Police Per Capita); results are

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[92] The only other change to the results when Not Corrupt is removed from the model is that Interstate War (and Anocracy) is no longer significant.

[93] Without Gini Index, the magnitude of the coefficient of Never Protest decreases by half and this variable becomes only marginally significant ($\hat{\beta} = -0.0036$, $p = 0.0685$). Civil War is no longer significant (nor is Homicide, although the coefficient remains negative) and the Death Penalty coefficient increases, approaching significance ($\hat{\beta} = 0.1335$, $p = 0.0615$). Removing Homicide, which is correlated with Gini Index ($r = 0.6868$), produces no substantive changes to the results.

[94] These results do not change with the inclusion of GDP.

displayed in Table 23.[95] Mean State Confidence still is not significant, and the sign

of the coefficient is in the opposite direction than that predicted ($\hat{\beta}= 0.0007$, $t= 0.31$,

$p= 0.3805$).[96] The sign for Refugees switches, opposite of that predicted; it, too,

remains insignificant ($\hat{\beta}= -0.0003$, $t= -0.62$, $p= 0.2695$). Similar to Model 14, the

sign of the coefficient of Against Tax Fraud is opposite of that predicted, which is a

moot point as this variable does not reach significance ($\hat{\beta}= -0.0004$, $t= -0.18$, $p=$

0.4280). The only state legitimacy indicator that is significant is Never Protest ($\hat{\beta}=$

-0.0068, $t= -3.16$, $p= 0.0010$), and its coefficient is approximately the same as that in

the previous model (without the alternative explanations).[97] For each percent increase

in citizens who report they would never lawfully protest, the proportion of fatal

terrorist attacks on police is expected to decrease by 0.0024, holding all else

constant.[98] The story for the alternative explanations is the same as previous models:

Societal Schism is a significant predictor and Foreign Military Presence approaches

significance – both in the expected direction. For each unit increase in societal

schism, the proportion of fatal terrorist attacks directed toward the police is expected

to increase by 0.0257 and the presence of a foreign military is expected to increase

the proportion of fatal attacks on police by 0.0416, controlling for all other variables.

Relative deprivation (as measured by the Gini Index; $\hat{\beta}= 0.0203$, $t= 3.72$, $p= 0.0000$)

and Not Corrupt ($\hat{\beta}= -0.0549$, $t= -2.51$, $p= 0.0075$) remain significant (although the

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[95] Cragg's alternative would not converge for Model 15; accordingly, Tobit is reported.
[96] When Not Corrupt is removed from the model, the sign of Mean State Confidence coefficient switches to that expected, although it still does not reach significance. All other results remain the same (except Foreign Military Presence reaches statistical significance, $p< 0.05$).
[97] Excluding Never Protest produces no substantive differences in the results, except Foreign Military Presence and Civil War are no longer significant.
[98] The average predicted probability of being uncensored in Model 15 is 0.3548.

magnitude of both coefficients decrease slightly).[99] (Homicide also would be

statistically significant in a two-tailed test, but its sign is in the opposite direction than

that predicted.) While its coefficient remains the same as the previous model ($\hat{\beta} =$

0.1411, $t=$ 1.81, $p=$ 0.0370), the standard error of Civil War decreases, making it

statistically significant; Interstate War, on the other hand, is no longer significant.[100]

(The coefficient of Anocracy, which would have been marginally significant in the

previous model, had this been a two-tailed test or if the prediction were opposite,

drops by almost two-thirds and it no longer approaches significance ($\hat{\beta} = $ -0.0613, $t=$

-0.73, $p_{(one-tailed)}=$ 0.2335)).

Six non-essential control variables were removed from the parsimonious

model (Model 16), presented in Table 23.[101] Specifically, F-tests indicated that the

regime type variables (i.e., Autocracy and Anocracy), some violence measures

(Regional Terrorism, Death Penalty and Interstate War), and Population Density do

not contribute to the model ($F(6,1000)=$ 0.47, $p=$ 0.8284), so they were excluded.

The remaining variables tell a similar story as the previous model. Only one state

legitimacy variable is significant and in the predicted direction: Never Protest; its

coefficient is the same as the previous model ($\hat{\beta} = $ -0.0069, $t=$ -3.31, $p=$ 0.0005). The

sign of the coefficient for two of the state legitimacy indicators – Mean State

Confidence ($\hat{\beta} = $ 0.0005, $t=$ 0.26, $p=$ 0.3970) and Against Tax Fraud ($\hat{\beta} = $ 0.0005, $t=$

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[99] Removing Gini Index produces no substantive differences (although Homicide no longer would be significant in a two-tailed test, and the sign of its coefficient still is in the opposite direction). Removing Homicide produces no substantive differences, except the coefficient of Not Corrupt decreases, making it only marginally significant.

[100] When Civil War is removed from the model, Interstate War becomes statistically significant; all other results remain the same.

[101] Tobit and Cragg's alternative are not significantly different, indicating Tobit is appropriate to use in Model 16.

0.22, $p= 0.4120$) – is in the opposite direction than that predicted, although neither is significant (the sign of the coefficient of the latter variable switched from the previous model).[102] Societal Schism remains an important predictor of the proportion of fatal terrorist attacks against the police ($\hat{\beta} = 0.0730$, $t= 4.45$, $p= 0.0000$) and Foreign Military Presence reaches significance in the model ($\hat{\beta} = 0.1374$, $t= 1.94$, $p= 0.0285$), as its coefficient increases and standard error slightly decreases. Among the control variables, relative deprivation (as measured by the Gini Index), Civil War and Not Corrupt remain significant. (Homicides still would be significant in a two-tailed test, as it remains in the opposite direction than that predicted.)

To summarize, these results suggest that societal schism, the presence of a foreign military and relative deprivation are important determinants of both the proportion of terrorist attacks on police and the proportion of fatal terrorist attacks on police in support of hypotheses 3 and 4. Corruption and civil war also seem to play a role in predicting the proportion of fatal attacks against police. In some models, one state legitimacy indicator – the percent of citizens who report they would never protest – reaches significance, offering support for the second hypothesis. While these results downplayed the importance of both police and state legitimacy, the legitimacy indicators were significant in some models, depending on the other variables included.

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[102] The sign of the coefficient of Mean State Confidence switches to that predicted when Never Protest is removed from the model, although Mean State Confidence does not reach significance. The other results are similar, except Foreign Military Presence and Not Corrupt are no longer significant.

Confirming with Count Models

As described at the outset of this chapter, several countries experience little terrorism against any target between 1999 and 2008, reducing the denominator of the proportions used as the dependent variables in the previous analyses, artificially inflating some. To compensate for this issue, similar predictor variables as those used in Models 1-16 are included in count Models 1-16, but instead using the number of terrorist attacks on police per country and the number of fatal terrorist attacks against police per country as the dependent variables. Because the dependent variables are counts, Poisson regression analysis or, in the case of overdispersion, negative binomial regression analysis is appropriate. Given that the standard deviation is almost three times the mean for both the number of attacks on police ($\bar{x} = 17.415$, $s = 51.136$) and the number of fatal attacks on police ($\bar{x} = 10.402$, $s = 33.270$), overdispersion is present. This was confirmed by the significant likelihood ratio tests in each of the 40 imputed datasets, indicating negative binomial regression was a better choice than Poisson regression. [103] Additionally, because half of the countries in the sample had no terrorist attacks against the police and 53 countries had no fatal attacks on the police, zero-inflated negative binomial regression analysis may be more appropriate than negative binomial regression. However, zero-inflated regression failed to converge for all models except Model 1 (including only Confidence in Police with the number of attacks on police as the dependent variable), so the Vuong test (Vuong, 1989) was computed in each of 20 (of the 40) multiply imputed datasets for that model; while the test statistics were positive (generally

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[103] Likelihood ratio tests confirming evidence of overdispersion are not available using Stata's (version 10) `mim` commands, so these tests were conducted individually in each imputed dataset.

greater than 1.00), the insignificant results of the Vuong test (all p's> 0.10) found that zero-inflated models were not necessary.[104] Accordingly, negative binomial regression analysis was used to produce the estimates in Tables 19-22.

While these models are similar to the Tobit models, there are differences with the count models that should be noted. Because the population of police available as possible terrorist targets differs across countries, possible heteroskedasticity may be introduced (Greene, 2008). To account for this, an exposure variable (the number of police officer per country, roughly calculated as the product of Police Per Capita and population) was used in the count models, which is one difference between the count models and the models above. Additionally, the total number of terrorist attacks excluding those targeting police ("Non-Police Targeted Terrorism") was included as a control variable so that there is no overlap between this variable and the dependent variable. Except for these differences, the models reported below are the same as the Tobit models unless otherwise noted.[105]

In Model 1, including only confidence in the police, the sign of the coefficient is in the expected direction in that states where citizens have less confidence in police experience a higher number of terrorist attacks directed toward police – similar to the results of the Tobit analysis. (See Table 24.) But, this variable still does not reach significance ($\hat{\beta}$ = -0.0248, t= -1.21, p= 0.1135).

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[104] Nevertheless, because of the positive value of the Vuong test statistic across imputed samples, zero-inflated negative binomial regression was computed on individual datasets for Model 1 for comparison to the negative binomial regression results. The coefficients were very close (0.977 in the negative binomial regression and 0.992 in the zero-inflated negative binomial regression).

[105] The number of terrorist attacks against any target minus the attacks directed against the police is highly correlated with the dependent variable, the number of attacks on police (r= 0.994), and moderately correlated with Civil War (r= 0.5669). Models including control variables are run with and without Civil War and any differences are noted.

Adding control variables (including Non-Police Targeted Terrorism) in count Model 2 had similar results as the Tobit model. Specifically, the sign of the police legitimacy coefficient switches to the opposite direction than that predicted, and both the magnitude of the coefficient and the standard error decreased. The Gini Index ($\hat{\beta}$ = 0.0669, t= 1.52, p= 0.0645) and Not Corrupt ($\hat{\beta}$ = -0.04967, t= -3.22, p= 0.0005) emerged as important control variables, as in the Tobit model. (Homicide also would be significant in a two-tailed test, but its coefficient is in the opposite direction than that predicted – similar to the Tobit model.)

There also were some differences between the Tobit and count models. Not surprisingly given the almost perfect correlation (r= 0.994), Non-Police Targeted Terrorism was a significant predictor of the number of terrorist attacks on police ($\hat{\beta}$ = 0.0037, t= 3.15, p= 0.001). For each additional terrorist attack on another target, attacks directed toward police increase by a factor of 1.0037 (exp(0.0037)). (Differing from the Tobit analysis, Autocracy would reach significance if this were a two-tailed test or if the predicted sign was in the opposite direction ($\hat{\beta}$ = -2.3626, t= -2.07, $p_{(one-tailed)}$= 0.0190). Autocratic regimes (compared to democracies) decrease the expected rate of terrorist attacks on police by a factor of 0.0942. Death Penalty also would reach significance in a two-tailed test – but the sign of its coefficient was in the opposite direction than that predicted; states with the death penalty had fewer terrorist attacks directed against the police.)[106]

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[106] No substantive differences emerged when Civil War was excluded from the model. Removing Gini Index also produced no substantive difference (except Homicide would no longer reach significance in a two-tailed test; its coefficient remained in the opposite direction than that predicted). Without Homicide, Gini Index no longer approaches significance.

The alternative explanations were included in Model 3. Looking at

Confidence in Police, the magnitude of the coefficient is higher than in the previous

two models and the standard error is lower. Again, the sign of the coefficient is in the

opposite direction of that predicted. But, had the sign been in the opposite direction

or had this been a two-tailed test, police legitimacy would have reached significance

($\hat{\beta} = 0.0286$, $t= 1.75$, $p= 0.0400$). As in the Tobit model, two of the three alternative

explanations are significant predictors of the number of terrorist attacks on the

police.[107] Countries higher in societal schism ($\hat{\beta} = 0.2909$, $t= 2.26$, $p= 0.0120$) and

countries that have a foreign military on their soil ($\hat{\beta} = 1.6349$, $t= 2.69$, $p= 0.0035$)

experience higher terrorist attacks directed against their police forces. Specifically,

each unit increase on the schism scale increases terrorist attacks on police by a factor

of 1.3376; having a foreign military presence increases the expected number of

terrorist attacks on police by 5.1289. Unlike the Tobit model, the Gini Index

coefficient is no longer an important predictor. Non-Police Targeted Terrorism

remains significant; including the alternative explanations only slightly affected its

coefficient ($\hat{\beta} = 0.0033$, $t= 2.76$, $p= 0.0030$). (Autocracy would remain significant if

this were a two-tailed test or if the predicted sign was negative, although both the

magnitude of its coefficient and standard error ($\hat{\beta} = -3.0100$, $t= -2.48$, $p_{(one\text{-}tailed)}=$

0.0065) increased from count Model 2.) With the inclusion of the other explanations,

the magnitude of the coefficient of Not Corrupt decreases, making it only marginally

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[107] Note that Police Per Capita, a proxy measure for opportunity, again is not significant, adding little to the model. Because the total number of police was used as the exposure variable, Model 3 was run with and without Police Per Capita. The only difference is that without Police Per Capita, Not Corrupt no longer approaches significance. All other results remain as described in the text.

significant ($\hat{\beta}$= -0.2288, t= -1.37, p= 0.0855). While not significant, the sign of the

coefficients of Interstate War, Regional Terrorism and Population Density switched

from Tobit Model 2.[108]

Using the same predictors as Model 4 from the Tobit analysis, Civil War,

Interstate War, Regional Terrorism, Death Penalty, Not Corrupt and Population

Density were excluded after an F-test indicated they did not significantly contribute

to the model ($F(6,1000)$= 1.42, p= 0.2044). There is little change in the coefficient or

standard error of the Confidence in Police variable from the previous count model.

As in count Model 3 and in the Tobit analyses, Societal Schism ($\hat{\beta}$ = 0.2575, t= 2.01,

p= 0.0225) and Foreign Military Presence ($\hat{\beta}$ = 2.1919, t= 4.41, p= 0.0000) remain

significant. Non-Police Targeted Terrorism ($\hat{\beta}$ = 0.0038, t= 3.77, p= 0.0000) is an

important predictor of the number of terrorist attacks against the police, as is

Anocracy ($\hat{\beta}$ = 1.1088, t= 1.69, $p_{(one\text{-}tailed)}$= 0.0460). For each additional terrorist

attack against another targets, the number of terrorist attacks targeting the police

increases by a factor of 1.0038. Compared to democratic governments, a country

having an anocratic government increases the expected number of terrorist attacks

targeting the police by a factor of 3.0307. (Autocracy also would be important in a

two-tailed test ($\hat{\beta}$ = -2.8049, t= -3.12, $p_{(one\text{-}tailed)}$= 0.0010), differing from the Tobit

analyses where neither regime type variable was important in Model 4.) Also

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[108] No significant differences emerged when either Gini Index, Homicide or Civil War were excluded
from the count model.

differing from the Tobit analyses is the Gini Index – which remains insignificant here ($\hat{\beta} = 0.0348$, $t = 0.81$, $p = 0.2090$).[109]

<div align="center">INSERT TABLE 24 ABOUT HERE.</div>

Turning to Model 5 (see Table 25), which measures legitimacy through the state legitimacy indicators, the average state confidence coefficient is significant and its sign is in the predicted direction ($\hat{\beta} = -0.0330$, $t = -2.13$, $p = 0.017$): for each unit increase in the Mean State Confidence, the number of terrorist attacks against the police increases by a factor of 0.9675. The sign of the Refugees coefficient also is in the expected direction, but this variable and the other two state legitimacy indicators – with signs in the opposite direction than that predicted – fail to reach significance; recall in the Tobit analyses that none of the state legitimacy indicators was significant in Model 5.[110]

With the inclusion of the control variables in Model 6, the significance of Mean State Confidence disappears ($\hat{\beta} = -0.0141$, $t = -0.75$, $p = 0.2280$). (See Table 25.) In fact, count Model 6 resembles the findings in Model 6 of the Tobit analysis. The sign of the Mean State Confidence coefficient remains negative, but inclusion of the control variables decreases its magnitude and increases its standard error. The sign of Refugees switches to opposite of predicted ($\hat{\beta} = -0.0016$, $t = -0.25$, $p = 0.4025$) and the sign of Never Protest also switches to that expected. The magnitude of the coefficient of Never Protest increases, as does its standard error, and it now is

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[109] Removing Police Per Capita, Gini Index or Homicide produced no substantive changes in Model 4.
[110] Even without Never Protest, Mean State Confidence is marginally significant, with its sign in the expected direction ($\hat{\beta} = -0.0242$, $t = -1.66$, $p = 0.0490$). Refugees ($\hat{\beta} = 0.0071$, $t = 1.17$, $p = 0.121$) and Against Tax Fraud ($\hat{\beta} = 0.0198$, $t = 1.13$, $p = 0.1290$) remain positive and insignificant.

significant ($\hat{\beta}$ = -0.0421, t= -2.12, p= 0.0170), similar to the trend in the Tobit

analysis. Unlike the Tobit analysis of Model 6, in the count model the sign of

Against Tax Fraud ($\hat{\beta}$ = 0.0453, t= 2.42, $p_{(one-tailed)}$= 0.0080) remains positive –

opposite of expectations. (Also note that this variable would be significant in a two-

tailed test.) Looking at the control variables, Non-Police Targeted Terrorism again is

significant ($\hat{\beta}$ = 0.0051, t= 4.09, p=0.000). Similar to the Tobit analysis, relative

deprivation is important ($\hat{\beta}$ = 0.0827, t= 1.78, p=0.038), as is Not Corrupt ($\hat{\beta}$ =

-0.3104, t= -2.06, p=0.0195). None of the other control variables reached

significance.[111] (That said, it should be noted that Death Penalty would be significant

in a two-tailed test, as its sign is in the direction opposite of that predicted.)

Including the alternative explanations in Model 7 tells the same story. (See

Table 25.) Again – and similar to the Tobit analyses – two of the state legitimacy

indicators (i.e., Mean State Confidence and Never Protest) are in the expected

direction and only one, Never Protest, is significant (Mean State Confidence: $\hat{\beta}$ =

-0.0035, t= -0.16, p= 0.4365 and Never Protest: $\hat{\beta}$ = -0.0463, t= -2.11, p= 0.0175).

Refugees and Against Tax Fraud are in the opposite direction than that predicted

(although if this were a two-tailed test, Against Tax Fraud would be marginally

significant: $\hat{\beta}$ = 0.0359, t= 1.87, $p_{(one-tailed)}$= 0.0305). Among the alternative

explanations, Societal Schism ($\hat{\beta}$ = 0.2634, t= 1.94, p= 0.0260) and Presence of a

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[111] Excluding Never Protest switches the sign of the Refugees variable and Gini Index is no longer significant; the rest of the results remains substantively the same. When Gini Index is excluded, the magnitude of the Never Protest coefficient decreases, as does its standard error, and this variable only approaches significance. Removing other control variables (e.g., Homicide, Civil War) does not substantively change the results.

Foreign Military ($\hat{\beta}$ = 1.3624, t= 1.86, p= 0.0315) are important predictors of the number of terrorist attacks against the police, while Police Per Capita is not ($\hat{\beta}$ = -0.0003, t= -0.18, p= 0.4300). Non-Police Targeted Terrorism remains significant ($\hat{\beta}$ = 0.0037, t= 2.91, p= 0.0020). However, relative deprivation (as measured by the Gini Index) and Not Corrupt are no longer significant – while both standard errors are approximately the same, the magnitude of the coefficients decreases ($\hat{\beta}$ = 0.0585, t= 1.19, p= 0.1180 and $\hat{\beta}$ = -0.1050, t= -0.67, p= 0.2500, respectively). While the sign of the Civil War and Regional Terrorism coefficients switch direction, neither variable is a significant predictor of the number of terrorist attacks on police.[112]

Finally, count Model 8 uses similar predictor variables as Model 8 from the Tobit analysis. Again, an F-test indicated that the regime type variables (i.e., Autocracy and Anocracy), several violence measures (i.e., Interstate War, Regional Terrorism and Death Penalty), Not Corrupt and Population Density did not add much to the model (F(7,1000)= 1.34, p= 0.2295), so these variables were removed. While the sign of the Mean State Confidence switches direction, it remains insignificant ($\hat{\beta}$ = 0.0107, t= 0.51, p= 0.3050); the other state legitimacy indicators remain the same as the previous two models: Refugees and Against Tax Fraud are not significant ($\hat{\beta}$ = -0.0101, t= -1.87, $p_{(one-tailed)}$= 0.0310 and $\hat{\beta}$ = 0.0316, t= 1.58, $p_{(one-tailed)}$= 0.0575, respectively), and Never Protest remains significant in the expected direction ($\hat{\beta}$ = -0.0627, t= -2.84, p= 0.0025). Societal Schism is not significant ($\hat{\beta}$ = 0.1389, t= 1.03, p= 0.1515), as its coefficient drops in magnitude (and its standard error remains the

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[112] Removing various variables (e.g., Gini Index, Homicide, Civil War) did not alter the results.

same). Foreign Military Presence ($\hat{\beta}$ = 2.5316, t= 3.64, p= 0.0000) and Non-Police

Targeted Terrorism ($\hat{\beta}$ = 0.0033, t= 2.30, p= 0.0105) remain significant, while Police

Per Capita remains unimportant ($\hat{\beta}$ = -0.0000, t= -0.01, p= 0.4955). Gini Index once

again approaches significance ($\hat{\beta}$ = 0.0696, t= 1.29, p= 0.0985), and the coefficient of

Civil War doubles from the last model ($\hat{\beta}$ = 1.5625, t= 1.92, p= 0.0275), making it

significant in count Model 8.[113]

<center>INSERT TABLE 25 ABOUT HERE.</center>

Mirroring the Tobit analyses, the remaining count analyses use the total

number of fatal terrorist attacks per country targeting the police. Model 9 includes

only Confidence in Police. (See Table 26.) While the sign of the coefficient is in the

expected direction (and slightly larger in magnitude than Model 1, which uses total

fatal and nonfatal attacks on police as the dependent variable), it does not reach

significance ($\hat{\beta}$ = -0.0261, t= -1.05, p= 0.1465).

Adding the control variables in count Model 10 does not make this measure

important to explaining the number of fatal terrorist attacks on police. Just the

opposite – both the magnitude of the coefficient and the standard error decreases for

the Confidence in Police variable. In fact, like in the Tobit analysis, the sign of the

coefficient switches direction ($\hat{\beta}$ = 0.0068, t= 0.38, p= 0.3510). Also similar to the

Tobit analysis, relative deprivation ($\hat{\beta}$ = 0.0816, t= 1.63, p= 0.0520) and Not Corrupt

($\hat{\beta}$ = -0.7488, t= -3.81, p= 0.0000) are significant predictors, although Interstate War

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[113] No substantive differences emerge when other variables (e.g., Gini Index, Homicide, Civil War) are excluded.

is not ($\hat{\beta}$ = -0.1849, t= -0.21, p= 0.4160). Non-Police Targeted Terrorism is

significant ($\hat{\beta}$ = 0.0039, t= 3.08, p= 0.0010), as is Autocracy ($\hat{\beta}$ = -2.1807, t= -1.90,

p= 0.0570). (Again, if these were two-tailed tests, Homicide and Death Penalty

would approach significance.)[114]

The alternative explanations are added to Model 11. Even though the

magnitude of the Confidence in Police variable increases and its standard error is

about the same, it still does not reach significance and the sign of the coefficient

remains in the opposite direction ($\hat{\beta}$ = 0.0137, t= 0.78, p= 0.2170). Like in most

previous models, both Societal Schism ($\hat{\beta}$ = 0.4441, t= 2.43, p= 0.0075) and Foreign

Military Presence ($\hat{\beta}$ = 1.1837, t= 1.93, p= 0.0270) are significant predictors of the

number of fatal terrorist attacks on police. (Interestingly, for the first time, the Police

Per Capita variable would have been significant if this were a two-tailed test, but its

sign is in the opposite direction than that expected ($\hat{\beta}$ = -0.0038, t= -2.12, $p_{(one-tailed)}$=

0.0170), suggesting fatal terrorist attacks on police are higher in state with fewer

police per capita.) Among the control variables, Gini Index no longer is marginally

significant ($\hat{\beta}$ = 0.0283, t= 0.59, p= 0.2770); Non-Police Targeted Terrorism and Not

Corrupt remain important predictors ($\hat{\beta}$ = 0.0040, t= 3.18, p= 0.0010 and $\hat{\beta}$ =

-0.6301, t= -2.94, p= 0.0015, respectively).[115] (In a two-tailed test, Homicide would

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[114] When Homicide is removed from the model, Autocracy and Gini Index index no longer approach significance. Removing other variables from the model (e.g., Gini Index, Civil War) produces no substantive differences.

[115] Without either Gini Index, Civil War or Death Penalty, Population Density would become significant if its predicted sign was in the opposite direction. When Homicide is removed, Population Density again would become marginally significant if its expected sign was opposite and Regional Terrorism reaches significance. Without Anocracy, Foreign Military Presence no longer reaches

approach significance ($\hat{\beta} = -0.0085$, $t= -1.87$, $p_{(one-tailed)}= 0.0305$), but note that the sign of the coefficient is in the opposite direction than predicted. Additionally, the magnitude of the Autocracy coefficient increases (as does its standard error), and it would reach significance in a two-tailed test ($\hat{\beta} = -3.5432$, $t= -2.73$, $p_{(one-tailed)}= 0.0030$).)

Ideally, count Model 12 would use the same predictor variables as the parsimonious model used in Tobit analyses, removing the regime type variables (i.e., Autocracy and Anocracy), Regional Terrorism, Death Penalty and Population Density. However, an *F*-test indicated that these variables – specifically, Autocracy – significantly contribute to the count model ($F(5,1000)= 3.53$, $p= 0.0036$). Accordingly, Autocracy was included, while the other four variables (i.e., Anocracy, Regional Terrorism, Death Penalty, Population Density) were removed ($F(4,1000)= 1.79$, $p= 0.1284$). So, count Model 12 differs slightly from the parsimonious Tobit Model 12. The results, though, tell a similar story. While its coefficient increases, Confidence in Police remains insignificant with the sign in the opposite direction ($\hat{\beta} = 0.0227$, $t= 1.32$, $p_{(one-tailed)}= 0.0930$). Societal Schism ($\hat{\beta} = 0.3248$, $t= 1.88$, $p= 0.0300$) and Foreign Military Presence ($\hat{\beta} = 1.5743$, $t= 2.94$, $p= 0.0015$) are significant predictors of the number of fatal terrorist attacks against the police. The sign of Police Per Capita ($\hat{\beta} = -0.0028$, $t= -1.67$, $p_{(one-tailed)}= 0.0480$) continues to be opposite of that anticipated and remains insignificant (although it would approach significance in a two-tailed test). Looking at the control variables, Total Terrorism is

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significance. Without Not Corrupt, Interstate War becomes significant. No other substantive changes were noticed.

significant ($\hat{\beta}$ = 0.0034, t= 2.60, p= 0.0045), as is Civil War ($\hat{\beta}$ = 1.8505, t= 2.13, p= 0.0170) and Not Corrupt ($\hat{\beta}$ = -0.5916, t= -2.75, p= 0.0030). (Interstate War would approach significance in a two-tailed test, although its sign is opposite of that expected: $\hat{\beta}$ = -1.4812, t= -1.83, $p_{(one-tailed)}$= 0.0340.) Relative deprivation (as measured by the Gini Index) approaches significance ($\hat{\beta}$ = 0.0596, t= 1.40, p= 0.0810). (In a two-tailed test, Homicide would be significant: $\hat{\beta}$ = -0.0885, t= -2.65, $p_{(one-tailed)}$= 0.0040, as would Autocracy: $\hat{\beta}$ = -3.6398, t= -3.22, $p_{(one-tailed)}$= 0.0005.) While Gini Index is more volatile in the count models, the story remains relatively the same as the Tobit analyses, but adding an additional important predictor of terrorist attacks on police: Non-Police Targeted Terrorism.

INSERT TABLE 26 ABOUT HERE.

As in the Tobit analyses, Models 13-16 focus on fatal terrorist attacks on police, including state legitimacy indicators as predictors. (See Table 27.) Beginning with Model 13 which uses only the state legitimacy indicators as predictors, none of the state legitimacy indicators reach significance (although in a two-tailed test, Never Protest would approach significance: ($\hat{\beta}$ = 0.0382, t= 1.87, $p_{(one-tailed)}$= 0.0310). In fact, only two of the coefficient signs (that of Mean State Confidence and Refugees) are in the expected directions. These results are similar to Tobit model 13, with one exception: recall in the Tobit Model 13 that Mean State Confidence approaches significance, where in the count Model 13 it does not ($\hat{\beta}$ = -0.0172, t= -0.90, p= 0.1835).

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Control variables are added to Model 14. Similar to the Tobit analysis, the sign of all state legitimacy variables (except Against Tax Fraud) switches direction from count Model 13 (in the Tobit analyses, Refugees was the exception). The magnitude of the coefficients of Mean State Confidence ($\hat{\beta} = 0.0009$, $t= 0.05$, $p= 0.4805$) and Refugees ($\hat{\beta} = -0.0004$, $t= -0.08$, $p= 0.4700$) decreases. Again, Never Protest reaches significance ($\hat{\beta} = -0.0321$, $t= -2.19$, $p= 0.0145$). (In a two-tailed test, Against Tax Fraud would reach significance, too: $\hat{\beta} = 0.0569$, $t= 2.61$, $p_{(one-tailed)}= 0.0045$.) Also similar to the Tobit analysis, the Gini Index emerges as a significant predictor of fatal terrorist attacks against the police ($\hat{\beta} = 0.1141$, $t= 2.27$, $p= 0.0115$), as does Not Corrupt ($\hat{\beta} = -0.7739$, $t= -3.83$, $p= 0.0000$). (Homicide and Death Penalty would reach significance in a two-tailed test: $\hat{\beta} = -0.0792$, $t= -2.13$, $p_{(one-tailed)}= 0.0170$ and $\hat{\beta} = -1.2786$, $t= -2.12$, $p_{(one-tailed)}= 0.0170$, respectively.) Non-Police Targeted Terrorism in a country, too, is significant ($\hat{\beta} = 0.0053$, $t= 4.46$, $p= 0.0000$). Unlike the Tobit analysis, Anocracy, Civil War and Interstate War are not significant in the count analysis.[116]

Alternative explanations are included in Model 15. (See Table 27.) Looking at the state legitimacy indicators, while the magnitude of each coefficient increases, there are no substantive changes from Model 14. The only significant state legitimacy indicator is Never Protest ($\hat{\beta} = -0.0408$, $t= -1.95$, $p= 0.0260$) – as in the Tobit analysis. Also the same as the Tobit analysis, Societal Schism is significant

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[116] When Gini Index is removed from Model 14, Never Protest approaches significance (as would Autocracy and Death Penalty in a two-tailed test). Removing other variables (e.g., Civil War, Homicide) produces no substantive differences.

($\hat{\beta}$ = 0.3650, t= 2.18, p= 0.0150), Foreign Military Presence approaches significance

($\hat{\beta}$ = 0.9513, t= 1.41, p= 0.0790) and Police Per Capita is insignificant ($\hat{\beta}$ = -0.0011,

t= -0.61, p= 0.2700). Among control variables, Not Corrupt is significant ($\hat{\beta}$ =

-0.5862, t= -2.81, p= 0.0025) like in the Tobit analysis and the Gini Index approaches

significance ($\hat{\beta}$ = 0.0799, t= 1.43, p= 0.0765), while it was significant (p< 0.01) in

the Tobit analysis. Again, Non-Police Targeted Terrorism is significant ($\hat{\beta}$ = 0.0045,

t= 3.92, p= 0.0000). (If these were two-tailed tests, Interstate War and Death Penalty

would be marginally significant and Homicide would reach significance.) Unlike the

Tobit analysis, Civil War is insignificant.[117]

Finally, count Model 16 attempted to use the same predictors as those in the

parsimonious Tobit Model 16, excluding the regime type variables (i.e., Autocracy

and Anocracy), Interstate War, Regional Terrorism, Death Penalty and Population

Density. As in count Model 12, the F-test was significant ($F(6,1000)$= 3.49, p=

0.0020), indicating that at least one of these variables significantly contributed to the

model. Both Autocracy and Death Penalty were significant contributors to the model

($F(2,1000)$= 4.95, p= 0.0072); Anocracy, Interstate War, Regional Terrorism and

Population Density were not ($F(4,1000)$= 2.04, p= 0.0873) and were excluded from

the model. So, this parsimonious model differs from the final parsimonious Tobit

Model 16. No substantive changes emerge from Models 14 or 15, similar to the Tobit

analyses. Never Protest remains the only significant legitimacy indicator in the

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[117] Without Gini Index, the sign of the Mean State Confidence coefficient becomes negative (although it still is not significant) and Population Density approaches significance. (Autocracy would be significant in a two-tailed test, as its sign remains negative.) Without Homicide, the only substantive difference is that the coefficient of Mean State Confidence switches signs (and Never Protest becomes marginally significant). Without Civil War, Foreign Military Presence is not significant and Autocracy would be marginally significant in a two-tailed test.

predicted direction ($\hat{\beta}= -0.0468$, $t= -2.04$, $p= 0.0205$). (Against Tax Fraud would

approach significance in a two-tailed test: $\hat{\beta}= 0.0423$, $t= 1.76$, $p_{(one-tailed)}= 0.0395$.)

The magnitude of the coefficient decreases and its standard error increases, so

Societal Schism only approaches significance ($\hat{\beta}= 0.2873$, $t= 1.64$, $p= 0.0505$).

Foreign Military Presence is no longer marginally significant ($\hat{\beta}= 0.07871$, $t= 1.16$,

$p= 0.1235$). (Recall in the Tobit Model 16 that both Societal Schism and Foreign

Military Presence were significant at $p< 0.05$.) Relative deprivation (as measured by

the Gini Index) is significant ($\hat{\beta}= 0.0931$, $t= 1.77$, $p= 0.0380$), as is Not Corrupt ($\hat{\beta}=$

-0.8230, $t= -4.49$, $p= 0.0000$) – similar to the Tobit results – although Civil War is not

($\hat{\beta}= 0.6525$, $t= 0.087$, $p= 0.1920$), which is one point where this model diverges with

the Tobit analysis. Additionally, Non-Police Targeted Terrorism continues to be an

important predictor of fatal terrorist attacks targeting police. (As in the previous

count models, Homicide and Death Penalty would approach significance in two-tailed

tests, as would Autocracy, which was not included in the Tobit Model 16.)[118]

<div align="center">INSERT TABLE 27 ABOUT HERE.</div>

Summary

  The results of the count models using fatal terrorist attacks on police echoed

the count models using the number of all and only fatal attacks on police and, taken

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[118] Without Gini Index, Societal Schism becomes significant, while Never Protest becomes marginally significant; additionally, the sign of the Mean State Confidence coefficient switches direction to that predicted (although it still is insignificant). Without Homicide, the coefficient of Mean State Confidence also becomes negative and Societal Schism becomes significant. Removing Civil War produces no substantive changes in the results.

together, the results of the count models resembled those of the Tobit models.[119] In

both the Tobit analyses and the count analyses, police legitimacy played a minor – if

any – role, reaching significance in only one (Model 9) of the eight Tobit models in

which it was included. Confidence in Police never reached significance in the count

models and its coefficient was positive in every model that included the control

variables. Among the state legitimacy indicators, Mean State Confidence was

significant in only one count model (Model 5) using the number of terrorist attacks on

police and in only one Tobit model (Model 9) using the proportion of fatal terrorist

attacks on police. The sign of its coefficient reversed direction in some models.

Refugees and Against Tax Fraud often were in the direction opposite of that

predicted. Never Protest reached significance in both the Tobit and count models

where control variables were included. Societal Schism and Foreign Military

Presence were at least marginally significant in all (but one count) models in which

they were included. Not Corrupt usually was significant or marginally significant.

While relative deprivation (as measured by the Gini Index) was a consistent predictor

in the Tobit analyses, it was significant or approached significance in only some

count models. Regime type seemed important in some of the count models, but not

the Tobit models. Not surprisingly, the number of terrorist attacks against any target

other than the police emerged as a significant predictor of the number of attacks

directed against the police in the count models. The final chapter discusses the

theoretical and policy relevance of these results.

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[119] The CLAD models, which have fewer assumptions than Tobit, had divergent results; however, given that the sample size was greatly reduced in the CLAD analyses, the CLAD results may not be trustworthy and hence are not discussed here.

Chapter 7: Discussion and Conclusion

While the study of terrorism and policing terrorism has greatly increased since the September 2001 attacks in the United States, we know relatively little about police as targets of terrorist groups because, with few exceptions (e.g., Deflem, 2011; Deflem & Sutphin, 2006), this is an understudied but important topic. This project partially fills this gap in the literature by examining the influence of legitimacy and other factors on terrorist attacks on police.

Does legitimacy impact terrorist attacks on police? Contrary to expectations, analyses suggest little, if any, relationship between police legitimacy (measured as Confidence in Police) and both the proportion of terrorist attacks on police and the proportion of fatal attacks on police. This held true when looking at the count of all and only fatal terrorist attacks directed toward the police. Perhaps police legitimacy really has nothing to do with why terrorists target police; terrorists may target police for only instrumental reasons. For example, terrorists may target police as a means to prohibit these first responders from arriving at the scene of an attack, making it seem more catastrophic, not because citizens have no confidence in the police.

The state legitimacy indicators, for the most part, also did not seem to be related to the proportion of terrorist attacks on police – at least not as expected. The one variable that consistently emerged as a predictor of both the proportion and number of all and only fatal attacks on police was the percent of people who reported they would never lawfully protest. However, this finding could be tautological, as terrorism may be an extreme form of protesting. The average state confidence measure approached significance in two models, but often the sign of its coefficient

was in the opposite direction than that predicted. The other two state legitimacy indicators (the number of refugees fleeing a country and the percentage of people who are against tax fraud) would have reached significance in several models given a two-tailed test, suggesting indicators of higher state legitimacy are related to a higher proportion of and more terrorist attacks on police. While police legitimacy may not be related to police victimization, state legitimacy may play a role. This suggests that terrorists attack police for symbolic reasons – because they represent a government perceived as illegitimate (as indicated by the average state confidence variable) or to show the populace their confidence in the government is misplaced (as indicated by the Refugees and Against Tax Fraud variables).

The presence of a foreign military seemed to be the most consistent predictor of attacks on police. This is similar to Pape's (2006) findings, that presence of a foreign military (especially one with a different religion) significantly increased suicide attacks (against any target, not specifically the police). Pape (2006) concluded that suicide campaigns were designed to remove the foreign presence from the state; here, countries may experience a higher proportion of terrorist attacks on police to send a message to the government – or the police, who may be cooperating with foreign forces – that the state needs to remove its foreign influence. Perhaps in these countries, attacks on police are seen as a fight for liberation against an enemy state – and those who aid it. This was seen in the Iraq example described in Chapter 3. Specifically, the goal of al-Qaeda in Iraq is to remove foreign military presence.

Societal schism and relative deprivation also were important throughout the analyses (although sometimes the relative deprivation measure depended on what

other variables were included in the model). "Without a grievance, there would be no terrorism" (Rosenfeld, 2004, p. 23). Societal schism and economic inequality provide such grievances. Recall the societal schism measure is drawn from the Minorities at Risk project, which includes groups suffering from discriminatory treatment leading to political mobilization or collective action (Asal & Pate, 2005, p. 29). Groups experiencing discrimination or relative deprivation have a grievance, which may spawn terrorism – specifically against those symbols of the government (i.e., the police) who allow such discrimination and inequality to continue or who may even participate in it.

While two of the alternative explanations were consistently significant predictors of terrorist attacks on police, disregarding legitimacy as an important influence of such attacks is premature, especially because it reached significance in some models, like Model 10 excluding the corruption variable. Given the small sample size and low statistical power, only large effects are detected. It could be the case that legitimacy has a small to medium effect on terrorist attacks on police that is not picked up here. Future research should further explore the empirical relationship between legitimacy and terrorism.

Violence also may spill over into terrorist attacks targeting police, although how and when it is related to attacks on police is not consistent in these results. Some violence measures sometimes reached significance, depending on the variables included in the model. Involvement in civil war led to a higher proportion of fatal terrorist attacks on police, as expected. Terrorism – especially terrorism against representatives of the government's coercive authority (i.e., the police) – may be one

tool to use in the fight against the state. Homicide frequently would have reached significance had these been two-tailed tests, as the sign of its coefficient was negative. More homicides led to a lower proportion of fatal attacks on police – contrary to expectations. Perhaps all citizens recognize that police are needed to investigate these murders and, accordingly, terrorist groups do not target the police. Or, maybe random homicides disperse police resources into the community, where terrorist attacks would cause innocent casualties – homicides encourage civil interaction between police and citizens while terrorist attacks on police can lead to oppressive police actions. Another explanation may be that more homicides lead to a greater distaste for violence, decreasing the motivation for terrorism.

Surprisingly, opportunity to attack police (as measured by Police Per Capita) is unrelated to such terrorist attacks, although in count Model 11, Police Per Capita would have reached significance in a two-tailed test which indicates fatal attacks targeting the police were higher in states with fewer police per capita. In fact, the sign of the coefficient of this variable was negative in all count models, even though it was significant in only one. Perhaps terrorist attacks on police are instrumental, removing the few vulnerable obstacles in the way of terrorists' goals. This would also explain why police legitimacy was not an important determinant of terrorist attacks on police. However, the sign of the coefficient of Police Per Capita was positive in all Tobit models, suggesting the lone significant finding in Model 11 was an artifact of the data. Perhaps simply having the opportunity to attack is meaningless without a grievance (like presence of a foreign military, societal schism, or relative deprivation).

Other factors, like interstate war, regime type, gross domestic product (results not shown), regional terrorism, having the death penalty, and population density were not related to attacks on police in any models. Common sense suggests that terrorism may be one tool in the fight against the state, which is why civil war may have been significant while interstate war was not. State involvement in war with another state does not necessitate violence against one's own state; instead, violence would be directed at the foreigners (except in instances of an unpopular war) – especially when there is a foreign presence on a state's soil.

Similarly, the null finding of regional terrorism makes sense. Drakos and Gofas (2006) point out that the internet dilutes the importance of regional terrorism, as communication networks can now span much further and terrorists are not limited to physically close terrorist networks.

The terrorism literature offers mixed evidence on the importance of regime type, absolute economic factors (like GDP) and population; no support was found here with respect to terrorist attacks on police. Taken together, the violence measures suggest that a "culture of violence" does not influence terrorist attacks against police: death penalty and interstate war were not significant; homicide was significant but in the opposite direction; and only civil war was significant in one set of models, but alone these variables may not indicate a "culture of violence".

While the presence of a foreign military, societal schism, and relative deprivation are important in terrorist attacks on police, legitimacy deserves further research – especially given the limitations in this study.

There are several limitations inherent in this study. First, the legitimacy measures may not be valid. Police legitimacy may be distinct from confidence in police. Rigorous studies of police legitimacy at the micro level suggest that it is comprised of trust in police (Reisig et al., 2007). While trust in police was unavailable for the majority of the countries included in this sample, perhaps true police legitimacy is not measured by confidence in police.[120] Future research should conceptualize police legitimacy in other ways (e.g., trust in police), perhaps more closely reflecting the procedural justice literature.

Similarly, I was unable to use the composite measure of state legitimacy; instead I used direct measures. This is problematic because these indicators, like the percentage of people who hold certain beliefs and the number of refugees, could be confounded with other things. Having said this, Gilley (2006, 2009) used some of these variables (i.e., confidence in the government and confidence in civil services) in his composite measure of state legitimacy. Nevertheless, scholars should continue to empirically study the meaning and measure of state legitimacy, considering the legitimacy indicators failed validity tests and especially considering that countries known for abuse of citizens (e.g., Nigeria, Uganda) ranked higher in citizens'

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[120] The Global Barometer surveys ask respondents about their trust in police. However, these data were available only for a proportion of the countries included in this study, so this measure could not be incorporated here. Only 21 countries are represented in both the World Values Survey and the Global Barometer Survey: Argentina, Brazil, Chile, Colombia, Ghana, Guatemala, India, Indonesia, Japan, Jordan, Mali, Mexico, Morocco, Peru, South Africa, South Korea, Taiwan, Thailand, Uruguay, Vietnam and Zambia. For these 21 overlapping countries, the correlation between the percentage of the population who have quite a lot or a great deal of confidence in police (from the fifth wave of the World Values Survey, covering the years 2005-2008) and the percentage of the population who have quite a lot or a great deal of trust in the police (from Round 1 of the Global Barometer Survey, covering the years 2003-2007) is 0.8527.

subjective confidence in the government and its agencies than democratic states where citizens have many civil liberties.

A further issue surrounding legitimacy is that these measures may apply only to domestic, not international, terrorist attacks (see, e.g., Gaibulloev & Sandler, 2011). Recall that in many models the police and state legitimacy measures had the opposite sign than predicted (and in several models would have reached significance had the sign been in the predicted direction). The state and police may, in fact, be legitimate in the eyes of citizens and foreigners alike – and attacks on police may be driven by foreign powers, who might strike at the most legitimate of governments in an effort to delegitimize them. Disaggregating attacks on police into domestic and international attacks may lead to results consistent with expectations.

To assess whether attacks are domestic or international, the terrorist group must be known. While we may assume that most attacks against police are committed by domestic groups, unfortunately, this information is missing in a large proportion of cases. As an alternative, Enders, Sandler & Gaibulloev (2011) recently proposed a method for determining whether GTD incidents are domestic, international or unknown – a tool that may benefit future research. However, this tool only distinguishes international and domestic terrorist attacks by country-year instead of at the incident level. Differentiating target types (i.e., the police) is not possible with this tool. Further, Enders and colleagues (2011) base their tool on several assumptions which may or may not be unrealistic. Nevertheless, future research should attempt to differentiate between domestic and international attacks.

Even a domestic categorization may be too broad to identify possible effects of legitimacy. Countries may have several terrorist groups, each of which may have different reasons to attack specific targets. For some organizations or individual terrorists, illegitimacy may be relevant, while for others it may not be important. For example, Benmelech and Berrebi (2007) found that age and education were significant predictors of target type in Israel: older and more educated Palestinian suicide bombers focused on more "important", prestigious targets. While younger and less educated terrorists targeted military targets, older and more educated terrorists directed their attacks toward civilian targets in larger cities – attacks that would lead to more casualties. Perhaps this is because attacking the military in Israel is considered less prestigious than attacking civilians because attacks on the military are considered part of a terrorist's duty while attacking civilians is considered more sophisticated.

On a related note, even if legitimacy is important to some groups, the legitimacy measures used here may not tap into terrorists' attitudes of police or state legitimacy – or the attitudes of the terrorists' constituency. Recall the legitimacy variables are based primarily on survey responses from the World Values Survey. Not only do perceptions of legitimacy vary across culture, such perceptions of fairness vary across group membership and social status (e.g., Clay-Warner, 2001) within a culture. While the survey measures gauge the attitudes of the broader populace, they may not tap into grievances of particular subgroups. In particular, members of terrorist groups are unlikely survey participants, but their constituency may or may not be. This survey sampling limitation is highlighted by the significant

finding of the schism measure and the nonsignificant findings of the legitimacy variables. Specifically, in divided countries, survey measures may not assess both or all sides of the schism, disproportionately representing the attitudes of the dominant group members and overlooking those of minority group members.

Survey measures of legitimacy not only may fail to capture the attitudes of terrorists or their constituents, but survey measures also may fail to assess citizens' true attitudes of their government. For example, in repressive regimes, citizens may fear reprisal from honestly reporting a negative opinion about the state or the police. This could be the reason countries like Vietnam and China unexpectedly were ranked at the top of the confidence measures. Interestingly, while the police and state legitimacy measures drawn from attitudinal surveys did not yield consistent results in the empirical analyses, the objective corruption measure reached significance in several models, providing further evidence that the confidence in governance variables are invalid measures of legitimacy. Future researchers studying legitimacy should avoid such attitudinal measures and, instead, use objective measures.

Another limitation of this research is that it is cross-sectional in nature. Cross-sectional analyses are vulnerable to simultaneity issues and suffer particularly from omitted variable bias. First, legitimacy is not a static concept – it changes over time with regimes and with people's opinions about governmental policies and events (such as police misconduct or corruption). Although the analyses presented in Appendix A suggest some state legitimacy indicators are relatively stable (i.e., the change was not significantly different between survey waves), change in perceptions of legitimacy may happen slowly over time or other measures of legitimacy not

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included here may not be as stable. Importantly, according to the results presented in

Appendix A, confidence in police has grown between 1999 and 2008. Cross-

sectional analyses do not offer insight to how changes in police legitimacy over time

impact terrorist attacks on police.

Looking at only one point in time raises a second disadvantage of cross-

sectional analyses: simultaneity bias. Recall from the discussion in Chapter 3 the

complex relationship between police legitimacy and terrorism. Police legitimacy may

impact terrorist attacks on police in several ways (i.e., terrorists retaliate against

police illegitimacy, terrorists want to de-stabilize the legitimacy of police, or both

processes may be at play). And, terrorism may impact police legitimacy. High

policing or over policing in the aftermath of a terrorist incident may create a

repressive police state (Bayley & Weisburd, 2009; Brodeur, 2007; Kane, 2005) and

police may use excessive force instead of procedurally just tactics to suppress further

dissent (Crenshaw, 1981), reducing legitimacy (see Jonathan & Weisburd, 2010) and

potentially increasing terrorist attacks on police. That is, terrorist attacks on police

are affected by police legitimacy and police legitimacy is impacted by terrorist

attacks. This simultaneity makes disentangling the direction of causality difficult.

Longitudinal analyses are preferred for addressing direction of causality, as

longitudinal analyses incorporate temporal ordering.

A third drawback of cross-sectional analyses is the risk of omitted variable

bias. Establishing a causal relationship is difficult if another variable potentially

relevant to the prediction of the dependent variable and related to the independent

variable is excluded (i.e., if a rival explanation for the relationship between police

legitimacy and terrorist attacks on police is excluded). Of course, omitted variables are an issue in any analysis; however, fixed-effects longitudinal analyses would be able to control for between-country variation, limiting the impact of omitted variable bias to only time varying omitted variables – something this cross-sectional sample was not able to do.

Finally, the reader is reminded that this is not a random sample. The countries in this sample were included based on data available. Notably, Iraq was missing from the analyses, and Iraq had a great deal of terrorist attacks against the police. Again, these results should not be generalized beyond the sample.

Policy Implications

Despite these limitations, the results of this study suggest policies that may be beneficial in reducing terrorism. Combating terrorism is expensive – in terms of both monetary expenditures and human capital – and considering the significance of presence of foreign military, perhaps many of the military and law enforcement counterterrorism measures used actually aid in terrorist recruitment, furthering the problem.

Even with the null findings of police and state legitimacy, these results do not give the police license mistreat the public or suggest that the government rule without care to reduce terrorism. On the contrary, while police and state legitimacy may not have consistently influenced terrorist attacks on police in this study, they may affect terrorist attacks against other targets. Similarly, the null findings of opportunity suggest *how* police operate is more important than mere presence. Accordingly, police and politicians are encouraged to engage fairly with others.

Perhaps if we can find a way to "drain the swamp" – or remove the conditions that underlie terrorism itself (Lai, 2007) – we will have found an effective strategy that reduces the need for counterterrorism. Finding a way to work with foreign militaries without inviting them into the country may reduce terrorist attacks on police, as would reducing discrimination and relative deprivation. Pape (2006) points out that removing US military presence, for example, from protecting oil-producing countries is unrealistic, so we must prevent a future generation of terrorists from forming. Additionally, police can be proactive to reduce their risk. Working with communities to build cohesion among all members – including those who may look, act or believe differently – may reduce discrimination. Decreasing relative deprivation – maybe by providing programs to those who think they have less than others – would be beneficial, as well. Helping the protectors develop programs to protect not only the police but citizens, too, is beneficial for all.

Appendix A: Stability of Legitimacy

Several proxy measures of legitimacy are used in this research. First, police legitimacy is represented by citizens' confidence in police. State legitimacy is comprised of citizens' confidence in the government, in the civil services and in the justice system; citizens' belief that cheating on taxes is never justifiable; and citizens' reported abstention from legal protests (and the number of refugees fleeing a country, which is a behavioral measure). These measures (except Refugees) are drawn from World Values Survey responses from two waves spanning a ten year period. Because this research is cross-sectional, these data must be stable over time to avoid simultaneity bias. This section assesses whether this assumption holds true.

State legitimacy would be expected to be relatively stable over time because it is a form of world view. Golec de Zavala and Van Bergh (2007) explain the concept of the world view as a:

> discrete cognitive meta structure, made up of two types of beliefs: (1) epistemological assertions regarding the nature of truth, cognition (i.e., method of discovering the truth), and reality (i.e., whether it is objective or subjective); and (2) axiological assertions about professed values (i.e., whether values are absolute or relative) that define individual identity. Worldviews consist of concepts, explanative categories, and values through which individuals perceive reality, define life experiences, and construct identities. (p. 589-590)[121]

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[121] Golec de Zavala and Van Bergh (2007) list three broad categories of worldviews: "traditional (i.e., premodern or religious), modern (i.e., scientific or rational), and postmodern (i.e., existential or relativistic)" (p. 590), but they do not offer more specific examples.

Similar to religious convictions or core political predispositions, a person's world view or beliefs about the state – whether the national government, the civil service or the justice system – are likely solidified over time through political socialization and are unlikely to drastically change in the short term in the absence of a major event. In fact, Markus (1979) found that in spite of an increase in cynicism toward the US government surrounding the Vietnam War and the Civil Rights Movement, political trust remained remarkably stable among a panel of adolescents and their parents between 1965 and 1973 (see also Searing et al., 1976). Below, I test whether this holds true at the country level.

While it is partially drawn from state legitimacy, police legitimacy may be less stable than the broader concept of government legitimacy. Police legitimacy also derives from police behavior and one incident of injustice has deleterious effects on public perception of police. Unlike the government, where a despised individual politician is replaceable (at least in democracies), confidence in police stems from their ability to uphold the moral order (Jackson & Bradford, 2009) and the actions of one unjust officer can quickly generalize to all other officers wearing the uniform. The stability of confidence in police also is addressed below.

To test whether legitimacy indicators are stable over time, data were compared at two time periods – during the two most recent waves when responses were available – for each country. Ideally, the 1999-2004 wave and the 2005-2008 wave of the WVS would be used to correspond with the data used in the present research. Unfortunately, the legitimacy indicators were not included in every wave of the survey for every country. For example, only 20 countries measured confidence in

the government during the 1999-2004 and 2005-2008 survey waves; however, by

including *any* of the two most recent waves (e.g., 1994-1999 wave and 1999-2004

wave or 1989-1993 wave and 1994-1999 wave) during which the confidence in

government question was asked, 47 countries have data – a sample large enough to

run statistical tests. (The countries and waves used are presented in Table 28.)

Because each legitimacy indicator variable is continuous and data from two time

periods is being compared, dependent samples *t*-tests were conducted using PASW

(i.e., SPSS v.18): $t = \dfrac{\bar{x}_D - \mu_D}{s_D \big/ \sqrt{n-1}}$ (Bachman & Paternoster, 2004, p. 391), where

$\bar{x}_D = \bar{x}_{earlierwave} - \bar{x}_{laterwave}$ and $\mu_D = 0$. Positive *t*-test statistics indicate a decreasing

trend over time, while negative *t*-test statistics indicate an increasing trend over time.

Significant ($p < 0.05$) *t*-tests indicate a difference in reported attitudes and behaviors

over time; non-significant ($p \geq 0.05$) results, on the other hand, confirm the stability of

these legitimacy indicators over time.

INSERT TABLE 28 ABOUT HERE.

Beginning with Confidence in Police, 65 countries that had Confidence in

Police data on more than one wave were compared. A dependent samples *t*-test

found a marginally significant difference between the earlier and later wave (*t*=

-1.740, *df*= 64, *p*= 0.087), offering some evidence of a trend.[122] This is

understandable, as public perceptions of police fluctuate more with police actions

than public perceptions of the state.

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[122] Looking at the difference between waves for each country, this finding does not seem to be driven
by one or two countries. Restricting the sample to only the waves used in the present research (1999-
2004 and 2005-2008), the results are the same (*t*= -1.810, *df*= 29, *p*= 0.081) for the 30 countries on the
Confidence in Police measure.

Turning now to confidence in the government, 49 countries had information

on more than one wave for this measure. A dependent samples t-test found no

significant difference between an earlier and later wave ($t= -0.513$, $df= 48$, $p=$

0.611).[123] Data were available for confidence in civil services during multiple time

periods for 68 countries. Again, a dependent samples t-test found no significant

differences between the earlier and later waves ($t= 0.367$, $df= 67$, $p= 0.715$).[124]

Similarly, a dependent samples t-test found no significant difference between survey

waves for the 53 countries with multiple data points of confidence in the justice

system ($t= 0.650$, $df= 52$, $p= 0.518$).[125] The results of these three tests confirm there

is no significant difference in citizens' confidence in the government and its agencies

over time.

Turning to citizens' reported consent to governmental authority, denouncing

tax fraud was available in 67 countries over multiple time periods. A dependent

samples t-test confirmed that these attitudes are stable over time, as there was not a

significant difference between earlier and later survey waves ($t= -1.058$, $df= 66$, $p=$

0.294).[126] Likewise, in a sample of 65 countries with data available during two

waves, the percentage of people who report they would never engage in a legal

protest did not change over time ($t= -0.140$, $df= 64$, $p= 0.889$).[127] There is no

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[123] No significant differences were found in the 20 countries with data in the latest two waves (1999-2004 and 2005-2008): $t= -1.170$, $df= 19$, $p= 0.257$).

[124] Confidence in civil services was stable in the 33 countries where this question was asked in the 1999-2004 and 2005-2008 survey waves ($t= -0.587$, $df= 32$, $p= 0.567$).

[125] In the very small sample of 14 countries with data on confidence in the justice system measured in the 1999-2004 and 2005-2008 waves, no significant difference was found between survey waves ($t= -1.191$, $df= 13$, $p= 0.255$).

[126] This nonsignificant results remained true in the smaller sample of 32 countries where data were available in both the 1999-2004 and 2005-2008 survey waves ($t= 1.507$, $df= 31$, $p= 0.142$).

[127] No significant differences were found in the smaller sample including only data from the 1999-2004 and the 2005-2008 survey waves ($t= -0.683$, $df= 30$, $p= 0.500$).

significant difference over time in citizens' reports of their attitudes toward legal obedience.

Taken together, these results suggest the legitimacy indicators are stable over time. Accordingly, drawing a cross-sectional sample from a ten-year period of legitimacy data is reasonable, although the Confidence in Police measure should be interpreted with caution.

Appendix B: Addressing Missing Data

There are several ways to handle missing data. Most popular are complete case analysis (also called listwise deletion) and mean substitution (also referred to as single or mean imputation). Multiple imputation has become more popular with the computational ease offered by advanced statistical software.[128] Each method has its drawbacks, as discussed in Chapter 5. To account for these drawbacks, this appendix compares the results of three samples of data: (1) the original sample with missing data, analyzed using complete case analysis; (2) a sample with missing data imputed with the mean of the observed values for that variable; and (3) the results from the multiple imputation dataset shown in the results section.

However, each of these methods assumes data are missing at random (MAR). As indicated in Chapter 5, Mullins and Young (forthcoming) find that comparative data are not MAR, as missingness can be predicted by GDP and terrorism. To find whether the MAR assumption is violated with these data, a dichotomous variable indicating whether a country had any missing data on any of the variables used in the model was created (1=missing values on at least one variable; 0=no missing values). The results of several logit analyses using different combinations of predictor variables indicate that none of the other variables described in Chapter 5 predicted whether a country had missing values on any variable. Specifically, GDP and Total Terrorism (against any target) were insignificant (p's> 0.05) – contrary to the findings of Mullins and Young (forthcoming) – as were regime type and Population Density.

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[128] Maximum likelihood estimation also has desirable properties – but is generally reserved for longitudinal data with large samples. Accordingly, it is not appropriate for these data.

Accordingly, MAR may be a valid assumption for the data still missing here and the three approaches listed above may be appropriate.

The sample using multiple imputation to account for missing data was used for analyses described in Chapter 6. Specifically, multiple imputation by chained equations (MICE) was applied using Stata's (version 10) `ice` command. MICE allows a series of multiple regression equations, using all of the other data in the dataset (i.e., all other predictor variables described in Chapter 5). A convenient feature of this method is that the type of regression equation can be specified for each variable. For example, recall that the Not Corrupt variable ranged from 0 through 10. Treating this variable as ordinal-level, Stata's `ice` command allows an ordered logit to be computed (instead of ordinary least squares regression, used with continuous variables), creating estimates from the appropriate regression model.

Stata's `ice` command also allows for the specification of the number of imputations or datasets to be created. Schafer and Olsen (1998) suggest that only three to five imputations are necessary for efficient estimates. However, Graham and colleagues (2007) found that standard errors of estimates increase and power decreases with fewer imputations; they recommend the number of datasets should reflect the proportion of missingness in the data. Table 29 summarizes the number of missing values. Most (80%) countries with missing values are missing data on only one variable, but five countries (20%) are missing data on two variables. Based on the findings of Graham and colleagues (2007) and given the missingness here, 40 imputations were run to ensure adequate estimates.

INSERT TABLE 29 ABOUT HERE.

Data were checked to ensure that all missing data were imputed and that the non-missing values remained constant across the 40 imputed datasets using Stata's `mim: check` command; the data "passed" this test. However, some values in the imputed data were nonsensical. For example, GDP had negative values, as did Police Per Capita. The five negative values for GDP and the 42 negative values for Police Per Capita were censored to 0. Similarly, the percentage of citizens who were against tax fraud included imputed values above 100. This variable also was censored at 100 for the three values higher than 100.[129]

The other two approaches to handle missing data are relatively straightforward. Complete case analysis drops any country that has a missing value on any variable. Mean substitution, as it sounds, replaces missing values with the mean of the observed values. Table 30 compares the descriptive statistics for each sample: (1) complete case analysis; (2) mean substitution; and (3) multiple imputation (the results of which also are described throughout Chapter 6). As expected, the mean and range are identical between the complete case analysis and the mean substitution; because the mean of the observed values replaces the missing values in the second sample, the standard deviation is smaller than that of the complete case analysis. The mean, standard deviation and range differ in the multiple imputation sample, although these differences are small.

INSERT TABLE 30 ABOUT HERE.

The full Tobit models (Models 3, 7, 11, 15) were run in all three samples. Table 31 shows the results of Model 3, which includes Confidence in Police as the

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[129] All models were run in the imputed data that were and were not censored. No substantive differences emerged between the censored and uncensored datasets.

measure of police legitimacy, the alternative explanations (i.e., societal schism, presence of a foreign military and opportunity, measured by Police Per Capita), and all control variables, using the proportion of terrorist attacks targeting police as the dependent variable. The substantive results are the same: Confidence in Police does not reach significance, and Societal Schism, Foreign Military Presence, and relative deprivation (as measured by the Gini Index) emerge as important predictors. However, each sample has subtle differences in the coefficient and standard error of each variable. For example, the coefficient of the police legitimacy measure is higher in the complete case analysis (the coefficient in the mean substitution sample is equal to that in the multiple imputation sample), but the standard error is one-ten thousandth of a point lower in the multiple imputation sample than in the complete case analysis and mean substitution samples. Across the board, the standard errors are higher in the complete case analysis than in the other two samples.

INSERT TABLE 31 ABOUT HERE.

The same is true when computing Model 7 across the three samples, as shown in Table 32. (Recall that Model 7 includes the state legitimacy indicators, the alternative explanations and all control variables, using the proportion of terrorist attacks on police as the dependent variable.) Again, the standard errors are largest in the sample using complete case analysis and the coefficients are different across samples, which, in turn, affect the t-ratios and the significance tests. For example, while Never Protest is significant at $p < 0.05$ in both the mean substitution ($\hat{\beta} = -0.0029$, $s_{\bar{x}} = 0.0015$, $t = -1.93$, $p = 0.029$) and multiple imputation ($\hat{\beta} = -0.0033$, $s_{\bar{x}} = 0.0016$, $t = -2.02$, $p = 0.024$) samples, it is significant at $p < 0.01$ in the listwise

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deletion sample ($\hat{\beta}$ = -0.0043, $s_{\bar{x}}$ = 0.0018, t= -2.40, p= 0.010). In some instances,

the sign of the coefficient switches direction across samples. Although not

significant, Anocracy is positive in the complete case analysis but negative in the

other two samples; Interstate War and Regional Terrorism are negative in the

complete case analysis but positive in the other two samples; and Not Corrupt is

positive in the mean substitution sample but negative in both the complete case

analysis and the multiple imputation sample. Nevertheless, the significant findings

remain the same, with Never Protest, Societal Schism, Foreign Military Presence,

relative deprivation (as measured by the Gini Index) and Civil War emerging as

important predictors of the proportion of terrorist attacks directed toward police. The

models using the proportion of fatal terrorist attacks against the police show similar

patterns (see Tables 28 and 29).

INSERT TABLE 32 ABOUT HERE.

INSERT TABLE 33 ABOUT HERE.

INSERT TABLE 34 ABOUT HERE.

While there certainly are minor differences across the three samples, the

substantive results are relatively the same. As such, the results using the multiply

imputed data reported in Chapter 6 likely apply to all samples used to correct for

missing data.

Appendix C: Examining Rates

Using proportions to assess the problem of terrorist attacks against police is preferred over counts of attacks on police, as proportions control for attacks on police that may be artificially high or low in countries with extremely high or extremely low amounts of terrorism in general. The drawback of using proportions is that they may be artificially high or low when the denominator is small; for this reason, count models were analyzed. Another way to study the problem of terrorist attacks on police is to examine rates of terrorist attacks on police per the number of police in a country. Using these rates and the rate of terrorist attacks on police per population help assess the fifth hypothesis, focusing on opportunity to attack the police. Accordingly, this appendix will further explore terrorist attacks on police using these two rates as the outcome variables.

The rate of terrorist attacks on police per one million police officers was computed by dividing the number of terrorist attacks targeting police by the total number of police per country, multiplied by one million. Eight observations were missing, as some countries were missing information on the number of police.[130] On average, the countries in this sample experienced terrorist attacks on police at a rate of 0.0016 per one million officers (median= 0.00004, $s=$ 0.0048). Similarly, the rate of terrorist attacks on police per 100,000 population was computed by dividing the number of terrorist attacks targeting police by the population, multiplied by 100,000. On average, the sampled countries had 0.0463 terrorist attacks on police per 100,000 population (median= 0.0002, $s=$ 0.1943). The rankings of the rate of terrorist attacks

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[130] The countries missing information on the number of police officers include Bulgaria, Burkina Faso, Ghana, Iran, Nigeria, Rwanda, Tanzania, and Trinidad and Tobago.

on police per one million police officers and the rate of terrorist attacks on police per 100,000 population are presented in Table 35. Macedonia remains at the top of both lists (recall Macedonia also had the highest proportion of terrorist attacks against police). Colombia, Georgia and Algeria also rank in the top four, while western countries like the United States, France and Nordic countries fall near the bottom of both rankings.

INSERT TABLE 35 ABOUT HERE.

To explore what might be driving these rankings, models are computed with similar predictor variables to the Tobit and count models above. Because the dependent variables are rates, Tobit regression analysis again is most appropriate.[131] Significant Breusch-Hagan tests indicate heteroskedasticity in models using the rates of terrorist attacks on police per one million officers ($\chi^2 = 284.10$, $p < 0.0001$) and the rates of attacks on police per 100,000 population ($\chi^2 = 288.88$, $p < 0.0001$). The distributions of the error terms are mound shaped, with a few outliers to the right. Accordingly, CLAD models are run to confirm the findings from the Tobit models.[132]

For each dependent variable, four models are analyzed, using the similar predictor variables as the count models. To avoid overlap between the independent and dependent variables, police officers per capita is excluded in the models using the rate of attacks on police per one million officers and population density is excluded from the models using the rate of attacks on police per 100,000 population.

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[131] Multiple imputation was used to assign scores to the missing observations on the rate of terrorist attacks on police per one million officers, producing 14 negative values across the 40 samples. These 14 negative scores were replaced with 0.

[132] Cragg's (1971) alternative is inappropriate here, as the dependent variables are rates, not proportions.

The first set of models uses the rate of attacks on police per one million officers as the outcome variable, with the results of the Tobit regression analysis presented in Table 36. Model 1 includes only the police legitimacy measure, Confidence in Police. The sign is in the expected direction, but the coefficient fails to reach significance. CLAD analyses confirm this finding. Model 2 adds the control variables. The police legitimacy measure changes sign, to that opposite of expected. (Had the sign remained negative, this measure would have been marginally significant). Non-Police Targeted Terrorism, relative deprivation (as measured by the Gini Index), and Not Corrupt all are significant in the expected direction. (Homicide and Death Penalty would have been marginally significant had their signs been in the opposite direction.) CLAD would not converge.

The alternative explanations are added in Model 3 and, like the earlier analyses, Societal Schism and Foreign Military are marginally significant and significant predictors of the rate of terrorist attacks on police per one million officers. Again, the sign of the police legitimacy measure remains positive (and would have reached significance had the sign been negative). Interestingly, Non-Police Targeted Terrorism did not reach significance, while relative deprivation and Not Corrupt continue to be significant predictors. In this model, Civil War reaches significance. Again, CLAD fails to converge.

The results of an F-test indicate that the regime type variables (Autocratic and Anocratic), Interstate War, Regional Terrorism and Population Density do not significantly contribute to the model ($F(5, 1000)= 0.79$, $p= 0.56$); accordingly, these variables are excluded from parsimonious Model 4. The sign of Confidence in Police

again remains positive (although it would *not* have been significant even if the sign was in the opposite direction). Societal Schism and Presence of a Foreign Military continue to be significant predictors, as are relative deprivation and Civil War. As in the previous model, Non-Police Targeted Terrorism does not reach significance in this model. However, Not Corrupt fails to reach significance here. (Had its sign been in the predicted direction, Death Penalty would have been marginally significant.) Results of the CLAD analyses indicate that the Gini Index is significant in the expected direction, but the sample size was reduced from 82 to 31; the CLAD results should be interpreted with caution. Overall, the results of these analyses with rates seem to mirror those measuring the dependent variable as proportions and counts.

INSERT TABLE 36 ABOUT HERE.

Next, I use the rate of terrorist attacks on police per 100,000 population as the outcome variable. The results of these analyses are presented in Table 37. Similar to the analyses above, Model 1 includes only the police legitimacy measure, which is in the expected direction but fails to reach significance. CLAD confirms this (*n*= 79). Again, Confidence in Police switches sign when control variables are added to Model 2. Non-Police Targeted Terrorism, relative deprivation (measured by the Gini Index) and Not Corrupt are marginally significant or significant in the expected direction. (Homicide would be significant if its sign was in the predicted direction.) CLAD would not converge.

When the alternative explanations are added in Model 3, the sign of Confidence in Police remains negative (although it would have reached significance, *p*< 0.05, in a two-tailed test or if the sign were negative). Societal Schism and

Foreign Military Presence are significant predictors of the rate of terrorist attacks on police per 100,000 population. The sign of Police per Capita is in the expected direction and just fails to marginal significance (p= 0.1125). Relative deprivation, as measured by the Gini Index, and Not Corrupt also are marginally significant, while Non-Police Targeted Terrorism is not. (Homicide would have been marginally significant, had its sign been in the expected direction.) Again, CLAD fails to converge.

Finally, the results of an F-test indicated that Non-Police Targeted Terrorism, regime type variables (Autocratic and Anocratic), the war variables (Civil War and Interstate War), and Regional Terrorism did not contribute to the model (F(6, 1000)= 1.36, p= 0.23); these variables were excluded from parsimonious Model 4. Without these variables, the story remains the same. Confidence in Police is not significant and its sign is opposite of that expected (but would be significant had its sign been negative). Societal Schism and Foreign Military Presence again reach significance in the expected direction. Relative deprivation is marginally significant, as expected, but Not Corrupt is not. CLAD again fails to converge. These results are similar to those using the rate of terrorist attacks per one million officers and to both the Tobit and count models discussed earlier.

INSERT TABLE 37 ABOUT HERE.

One purpose of examining rates of terrorist attacks on police per officers and per population was to examine the second hypothesis. Taken together, though, the models – using rates, proportions or counts – do not provide support for opportunity to attack police as an explanation for terrorist attacks targeting police. Overall, the

results of the models using rates as the dependent variables mirror the analyses

discussed earlier, lending further support for societal schism, presence of a foreign

military, relative deprivation and low corruption as explanations for terrorist attacks

against the police.

Tables and Figures

<u>Table 1</u>. Number of terrorist attacks against police, total terrorist attacks against all target types, and the proportion of terrorist attacks targeted against police by country, 1999-2008

Country	Total attacks against police	Total terrorist attacks	Proportion of all terrorist attacks targeted against police
Iraq	746	4021	0.19
India	361	1862	0.19
Afghanistan	315	1426	0.22
Russia	207	825	0.25
Pakistan	135	1283	0.11
Thailand	126	919	0.14
Colombia	99	822	0.12
Algeria	86	436	0.20
Nepal	77	435	0.18
Philippines	66	781	0.08
Sri Lanka	52	409	0.13
Somalia	49	365	0.13
Spain	47	398	0.12
Indonesia	44	317	0.14
United Kingdom	44	321	0.137
Great Britain	2	69	0.03
Northern Ireland	42	252	0.17
Turkey	43	337	0.13
Macedonia	34	87	0.39
West Bank and Gaza Strip	29	496	0.06
Corsica	21	164	0.13
Nigeria	19	230	0.08
Georgia	17	65	0.26
Kosovo	14	135	0.10
Yugoslavia	13	47	0.28
Bangladesh	11	135	0.08
Israel	11	505	0.02
Mexico	11	34	0.32
Yemen	11	84	0.13
Italy	10	58	0.17

Country	Total attacks against police	Total terrorist attacks	Proportion of all terrorist attacks targeted against police
Greece	9	197	0.05
Peru	8	21	0.38
Iran	7	65	0.11
Saudi Arabia	7	40	0.18
Sudan	7	109	0.06
China	6	44	0.14
France	5	80	0.06
Kenya	5	33	0.15
Burundi	4	111	0.04
Haiti	4	20	0.20
Lebanon	4	170	0.02
Serbia-Montenegro	4	17	0.24
South Africa	4	38	0.11
Angola	3	93	0.03
Brazil	3	8	0.38
Uganda	3	132	0.02
Australia	2	8	0.25
Azerbaijan	2	8	0.25
Belgium	2	15	0.13
Bosnia-Herzegovina	2	23	0.09
Ethiopia	2	35	0.06
Guyana	2	6	0.33
Morocco	2	11	0.18
Sweden	2	9	0.22
Tajikistan	2	13	0.15
Tunisia	2	4	0.50
Uzbekistan	2	15	0.13
Zimbabwe	2	14	0.143
Albania	1	7	0.14
Bahrain	1	3	0.33
Burma (Myanmar)	1	52	0.02
Chile	1	22	0.05
Congo, Republic of (Brazzaville)	1	11	0.09
Congo, Democratic Republic of (Kinshasa)	1	58	0.02
Egypt	1	12	0.08

Country	Total attacks against police	Total terrorist attacks	Proportion of all terrorist attacks targeted against police
Germany	1	38	0.03
Kazakhstan	1	2	0.50
Kyrgyzstan	1	16	0.06
Malaysia	1	4	0.25
Mauritania	1	4	0.25
Namibia	1	26	0.04
Niger	1	14	0.07
Papua New Guinea	1	2	0.50
Serbia	1	4	0.25
Solomon Islands	1	4	0.25
South Korea	1	3	0.33
Swaziland	1	6	0.17
Timor-Leste	1	32	0.03
United States	1	196	0.005
Western Sahara	1	1	1
Argentina	0	5	0
Armenia	0	4	0
Austria	0	9	0
Belarus	0	4	0
Benin	0	2	0
Bhutan	0	4	0
Bolivia	0	6	0
Bulgaria	0	5	0
Burkina Faso	0	0	0
Cambodia	0	15	0
Cameroon	0	2	0
Canada	0	16	0
Central African Republic	0	5	0
Chad	0	27	0
Croatia	0	5	0
Cuba	0	1	0
Cyprus	0	4	0
Czech Republic	0	5	0
Denmark	0	3	0
Djibouti	0	1	0
Dominican Republic	0	0	0
Ecuador	0	17	0

Country	Total attacks against police	Total terrorist attacks	Proportion of all terrorist attacks targeted against police
Eritrea	0	4	0
Estonia	0	2	0
Fiji	0	4	0
Finland	0	2	0
Gambia	0	1	0
Ghana	0	0	0
Guatemala	0	9	0
Guinea	0	5	0
Guinea-Bissau	0	7	0
Honduras	0	1	0
Hong Kong	0	3	0
Hungary	0	2	0
Iceland	0	1	0
Ireland	0	14	0
Ivory Coast	0	24	0
Jamaica	0	1	0
Japan	0	24	0
Jordan	0	11	0
Kashmir	0	2	0
Kuwait	0	7	0
Laos	0	8	0
Latvia	0	5	0
Lesotho	0	1	0
Liberia	0	8	0
Libya	0	2	0
Lithuania	0	0	0
Luxembourg	0	1	0
Madagascar	0	6	0
Malawi	0	1	0
Maldives	0	3	0
Mali	0	12	0
Moldova	0	2	0
Montenegro	0	1	0
Mozambique	0	3	0
Netherlands	0	9	0
New Zealand	0	9	0
Nicaragua	0	1	0
Norway	0	4	0

Country	Total attacks against police	Total terrorist attacks	Proportion of all terrorist attacks targeted against police
Panama	0	1	0
Paraguay	0	3	0
Poland	0	1	0
Portugal	0	0	0
Puerto Rico	0	1	0
Qatar	0	3	0
Romania	0	2	0
Rwanda	0	4	0
Senegal	0	18	0
Sierra Leone	0	24	0
Slovak Republic	0	2	0
Slovenia	0	1	0
Switzerland	0	11	0
Syria	0	4	0
Taiwan	0	5	0
Tanzania	0	3	0
Togo	0	1	0
Trinidad and Tobago	0	2	0
Ukraine	0	12	0
Uruguay	0	1	0
Venezuela	0	24	0
Vietnam	0	4	0
Zambia	0	16	0

Table 2. Snapshot of details surrounding terrorist attacks against police in heavily-hit countries

	Macedonia	Georgia	Russia	Afghanistan	Algeria
Proportion of attacks on police	0.39	0.26	0.25	0.22	0.20
Primary attack type	Armed assaults	Bombs/ Explosions	Armed assaults	Bombs/ Explosions	Armed assaults
Attacks mostly deliberate or collateral?	Deliberate	Deliberate	Deliberate	Deliberate	Deliberate
Circumstance surrounding most attacks	Checkpoints, posts or on patrol	Stations attacked	On patrol	Checkpoints, posts or on patrol	Attacked at station, on patrol
Group responsible for most attacks	National Liberation Army (NLA)	South Ossetian Separatists	Chechens	Taliban	Salafist Group for Preaching and Fighting
Primary group goal	Equal rights/ sovereign territory	Sovereign territory	Sovereign territory	Islamic state rule	Islamic state rule
Size of country (in sq. km)*	25,713	69,700	17,098,242	652,230	2,381,741
Population of country*	2,077,328	4,585,874	138,739,892	29,835,392	34,994,937

* Country size and population from the CIA WorldFactbook (retrieved May 20, 2011)

Table 3. Police per capita (for the year 2003) and proportion of terrorist attacks against police in selected countries

	Number of police personnel[a]	Police per 100,000 population	Police: population ratio	Proportion of terrorist attacks against police
Russia[b]	1,100,000	761.11	1:131	0.25
Greece	52,000	487.53	1:205	0.05
Macedonia	10,000	484.70	1:206	0.39
Georgia	22,229	450.49	1:222	0.26
Israel	27,500	420.17	1:238	0.02
Lebanon	14,000	375.57	1:266	0.02
United States	970,588	348.59	1:286.9	0.005
Great Britain (England & Wales)	129,603	247.21	1:405	0.03
Algeria	76,000	231.58	1:432	0.20
Nepal	60,000	226.68	1:441	0.18
Sri Lanka	38,472	194.87	1:513	0.13
Canada	60,000	186.29	1:537	0
Pakistan	268,166	177.95	1:562	0.11
Afghanistan	17,000-50,000	174.11-592.98	1:169-1:574	0.22
Bhutan	3,417	159.71	1:626	0
Bangladesh	109,000	78.73	1:1270	0.08
Uganda	20,000	78.03	1:1282	0.02
Burundi	N/A	N/A	N/A	0.04
Angola	N/A	N/A	N/A	0.03
Burma	N/A	N/A	N/A	0.02
Democratic Republic of the Congo	N/A	N/A	N/A	0.02

Notes:

[a] Police personnel is the sum of all policing bodies in the country.

[b] Countries in **bold** are the "top five" countries. The "bottom ten" countries include Angola, Burma, Burundi, Democratic Republic of the Congo, Great Britain, Greece, Israel, Lebanon, Uganda, and United States

Sources: Police personnel data from Das (2006); population data from Central Intelligence Agency (2003); proportion of terrorist attacks against police from the Global Terrorism Database (National Consortium, 2010); US Federal Bureau of Investigation

Table 4. Countries included in sample

North America:	Central America & Caribbean:	South America:	Australasia & Oceania:
1. Canada 2. Mexico 3. United States	4. Guatemala 5. Trinidad and Tobago	6. Argentina 7. Brazil 8. Chile 9. Colombia 10. Peru 11. Uruguay 12. Venezuela	13. Australia 14. New Zealand
Western Europe: 15. Austria 16. Belgium 17. Denmark 18. Finland 19. France 20. Germany 21. Greece 22. Iceland 23. Ireland 24. Italy 25. Luxembourg 26. Netherlands 27. Norway 28. Portugal 29. Spain 30. Sweden 31. Switzerland 32. United Kingdom	Eastern Europe: 33. Albania 34. Bosnia-Herzegovina 35. Bulgaria 36. Croatia 37. Czech Republic 38. Hungary 39. Macedonia 40. Moldova 41. Poland 42. Romania 43. Serbia 44. Slovak Republic 45. Slovenia	Russia & newly independent states: 46. Belarus 47. Estonia 48. Georgia 49. Latvia 50. Lithuania 51. Russia 52. Ukraine	Sub-Saharan Africa: 53. Burkina Faso 54. Ethiopia 55. Ghana 56. Mali 57. Nigeria 58. Rwanda 59. South Africa 60. Tanzania 61. Uganda 62. Zambia 63. Zimbabwe
Middle East & North Africa: 64. Algeria 65. Cyprus 66. Egypt 67. Iran 68. Jordan 69. Morocco 70. Turkey	East Asia: 71. China 72. Japan 73. South Korea	Southeast Asia: 74. Indonesia 75. Malaysia 76. Philippines 77. Thailand 78. Vietnam	South Asia: 79. Bangladesh 80. India 81. Pakistan
Central Asia: 82. Kyrgyzstan			

Table 5. Number of respondents per country and wave of the latest three waves of the World Values Survey

Country	1994-1999	1999-2004	2005-2007
Albania	999	1000	0
Algeria	0	1282	0
Andorra	0	0	1003
Argentina	1079	1280	1002
Armenia	2000	0	0
Australia	2048	0	1421
Austria	0	1522	0
Azerbaijan	2002	0	0
Bangladesh	1525	1500	0
Belarus	2092	1000	0
Belgium	0	1912	0
Bosnia and Herzegovina	1200	1200	0
Brazil	1149	0	1500
Bulgaria	1072	1000	1001
Burkina Faso	0	0	1534
Canada	0	1931	2164
Chile	1000	1200	1000
China	1500	1000	2015
Colombia	6025	0	3025
Croatia	1196	1003	0
Cyprus	0	0	1050
Czech Republic	1147	1908	0
Denmark	0	1023	0
Dominican Republic	417	0	0
Egypt	0	3000	3051
El Salvador	1254	0	0
Estonia	1021	1005	0
Ethiopia	0	0	1500
Finland	987	1038	1014
France	0	1615	1001
Georgia	2008	0	1500
Germany	2026	2036	2064
Germany West	0	0	0
Ghana	0	0	1534
Great Britain	1093	1000	1041
Greece	0	1142	0
Guatemala	0	0	1000
Hong Kong	0	0	1252
Hungary	650	1000	0
Iceland	0	968	0
India	2040	2002	2001

Country	1994-1999	1999-2004	2005-2007
Indonesia	0	1004	2015
Iran	0	2532	2667
Iraq	0	2325	2701
Ireland	0	1012	0
Israel	0	1199	0
Italy	0	2000	1012
Japan	1054	1362	1096
Jordan	0	1223	1200
Kyrgyzstan	0	1043	0
Latvia	1200	1013	0
Lithuania	1009	1018	0
Luxembourg	0	1211	0
Macedonia	995	1055	0
Malaysia	0	0	1201
Mali	0	0	1534
Malta	0	1002	0
Mexico	2364	1535	1560
Moldova	984	1008	1046
Morocco	0	2264	1200
Netherlands	0	1003	1050
New Zealand	1201	0	954
Nigeria	1996	2022	0
Northern Ireland	0	1000	0
Norway	1127	0	1025
Pakistan	733	2000	0
Peru	1211	1501	1500
Philippines	1200	1200	0
Poland	1153	1095	1000
Portugal	0	1000	0
Puerto Rico	1164	720	0
Romania	1239	1146	1776
Russian Federation	2040	2500	2033
Rwanda	0	0	1507
Saudi Arabia	0	1502	0
Serbia	0	0	1220
Serbia and Montenegro	1520	2260	0
Singapore	0	1512	0
Slovakia	1095	1331	0
Slovenia	1007	1006	1037
South Africa	2935	3000	2988
South Korea	1249	1200	1200
Spain	1211	2409	1200
Sweden	1009	1015	1003
Switzerland	1212	0	1241

Country	1994-1999	1999-2004	2005-2007
Taiwan	780	0	1227
Tanzania	0	1171	0
Thailand	0	0	1534
Trinidad and Tobago	0	0	1002
Turkey	1907	4607	1346
Uganda	0	1002	0
Ukraine	2811	1195	1000
United States	1542	1200	1249
Uruguay	1000	0	1000
Venezuela	1200	1200	0
Vietnam	0	1000	1495
Zambia	0	0	1500
Zimbabwe	0	1002	0

Table 6. Years from when data are drawn

Year	Countries
1999	Austria, Belgium, Croatia, Czech Republic, Denmark, Estonia, Greece, Hungary, Iceland, Ireland, Latvia, Lithuania, Luxembourg, Portugal, Slovak Republic
2000	Belarus, Egypt, Nigeria, Venezuela
2001	Bosnia-Herzegovina, Macedonia, Pakistan, Philippines, Tanzania, Uganda, Zimbabwe
2002	Albania, Algeria, Bangladesh
2003	Kyrgyzstan
2004	New Zealand
2005	Australia, Chile, Colombia, Finland, Guatemala, Italy, Japan, Mexico, Poland, Romania, Slovenia, South Korea
2006	Argentina, Brazil, Bulgaria, Canada, Cyprus, France, Germany, Great Britain,* India, Indonesia, Malaysia, Moldova, Netherlands, Russia, Serbia, Sweden, Trinidad and Tobago, Ukraine, United States, Uruguay, Vietnam
2007	Burkina Faso, China, Ethiopia, Ghana, Iran, Jordan, Mali, Morocco, Rwanda, South Africa, Spain, Switzerland, Thailand, Turkey, Zambia
2008	Georgia, Norway, Peru

*While survey data come from Great Britain, these data represent the United Kingdom, as other data sources do not differentiate the countries included in the UK.
Note: The fourth wave of the World Values Survey was collected between 1999 and 2004, and the fifth wave was collected between 2005 and 2007.

Table 7. Measuring state legitimacy

Etymology	Beetham's components of state legitimacy	Measure
Roman *legitimus* (lawful, according to law)	Views of legality	• Confidence in civil service • Confidence in national government • Confidence in the justice system
Medieval *legitimus* (conforming to ancient custom & customary procedure)	Views of justification	• Forcibly displaced populations/Refugees
Popular consent added in 1338	Acts of consent	• Never okay to cheat on taxes • Never protest

Table 8. Summary of variables used

Variable	Description	Source	Years measured
Dependent variables			
Proportion of terrorist attacks on police	Proportion of all terrorist attacks targeted against police, 1999-2008	GTD	1999-2008
Proportion of fatal attacks	Proportion of all fatal terrorist attacks targeted against police, 1999-2008	GTD	1999-2008
Police legitimacy			
Confidence in Police	Percentage of respondents who had at least some confidence in police	World Values Survey	See Table 6
State legitimacy			
Confidence in civil service	Percentage of respondents who had at least some confidence in civil service	World Values Survey	See Table 6
Confidence in government	Percentage of respondents who had at least some confidence in the national government	World Values Survey	See Table 6
Confidence in justice system	Percentage of respondents who had at least some confidence in the criminal justice system	World Values Survey	See Table 6
Refugees	Number of refugees (in millions)	INSCR	See Table 6
Against Tax Fraud	Percentage of respondents indicating cheating on taxes is never okay	World Values Survey	See Table 6
Never Protest	Percentage of respondents who indicated they never engaged in a lawful protest	World Values Survey	See Table 6

Variable	Description	Source	Years measured
Other independent variables			
Societal Schism	Index of discrimination	MAR	2006
Foreign Military Presence	Whether a foreign military was present on a country's soil	Kisangani & Pickering's *International Military Intervention, 1989-2005*	1999-2005
Police Per Capita	Number of police officers per 100,000 population	*World Police Encyclopedia*; other sources	2004
Control variables			
Regime type	Three dichotomous variables: democracy, autocracy, anocracy	Polity IV	See Table 6
GDP per capita	Gross domestic product per capita in 2000 US dollars	World Bank	See Table 6
Gini Index	Level of inequality between high and low incomes	CIA World Factbook	See Table 6
War	Two dichotomous variables assessing intra- and inter-state war	COW	1999-2008
Homicide	Number of intentional fatalities	WHO; other sources	2004
Regional terrorism	Number of terrorist incidents in region minus current country	GTD	1999-2008
Death penalty	Whether death penalty has been abolished in law or in practice	Amnesty International	2008
Not Corrupt	Corruption Perceptions Index	Transparency International	See Table 6
Population	Population and population density	World Bank	See Table 6

Table 9. Sample size, effect size and significance level minimizing error

Significance Level	Effect Size		
	Small Effect	Medium Effect	Large Effect
$P < 0.10$	450	68	27
$p < 0.05$	600	88	34
$p < 0.01$	800	140	50

Note: Minimum sample sizes are in the body of the table, where the significance level and effect size meet.

Table 10. Data missingness for all variables

Variable	*n* missing	Countries missing
Dependent variables		
Proportion of terrorist attacks on police	0	*No missing data*
Proportion of fatal attacks	0	*No missing data*
Police legitimacy		
Confidence in Police	0	*No missing data*
State legitimacy		
Confidence in civil service	0	*No missing data*
Confidence in government	9	Austria, Belgium, Denmark, Greece, Iceland, Ireland, Luxembourg, Portugal, Rwanda
Confidence in justice system	7	Algeria, Egypt, Guatemala, Kyrgyzstan, Tanzania, Uganda, Zimbabwe
Refugees	0	*No missing data*
Against Tax Fraud	1	Ghana
Never Protest	2	China, Iran
Other independent variables		
Societal Schism	0	*No missing data*
Foreign Military Presence	0	*No missing data*
Police Per Capita	8	Bulgaria, Burkina Faso, Ghana, Iran, Nigeria, Rwanda, Tanzania, Trinidad and Tobago
Control variables		
Regime type	0	*No missing data*
GDP per capita	1	Estonia
Gini Index	1	Trinidad and Tobago
War	0	*No missing data*
Homicide	0	*No missing data*
Regional Terrorism	0	*No missing data*
Death Penalty	0	*No missing data*
Not Corrupt	1	Bosnia-Herzegovina
Population	0	*No missing data*

Table 11. Descriptive statistics of terrorist incidents targeting police (with imputed data)

	Mean	Median	*s*	Min	Max
Proportion of attacks on police	0.078	0.003	0.106	0	0.391
Proportion of fatal attacks on police	0.077	0.000	0.135	0	0.667
Confidence in Police	56.815	56.778	19.961	15.680	91.990
Confidence in civil services	45.807	46.216	18.417	5.821	95.960
Confidence in national gov.	46.768	44.945	18.160	4.027	100.000
Confidence in justice system	52.479	51.629	19.503	8.156	100.000
Refugees (in millions)	19.965	0	60.397	0	340
Against Tax Fraud	71.911	74.745	13.550	37.240	100.000
Never Protest	45.958	42.952	17.620	13.748	90.186
Societal Schism	3.085	3.000	2.205	0	8
Foreign Military Presence					
1=presence	24%				
0=absence	76%				
Police Per Capita	294.675	289.15	177.005	0	834.781
Regime type					
Autocracy	9%				
Anocracy	18%				
Democracy	73%				
GDP (in thousands)	9.696	3.716	11.937	0.175	43.420
Gini Index	36.883	35.300	9.127	14.381	65.000
Civil war					
1=war	17%				
0=no war	83%				
Interstate war					
1=war	15%				
0=no war	85%				
Homicide	9.055	3.650	11.969	0.200	69.000
Regional terrorism	1455.990	1175	1660.178	18	6213
Death penalty					
1=use	30%				
0=abolished	70%				
Not Corrupt	4.686	3.700	2.382	1.200	10.000
Population density	120.512	81.100	153.001	2.700	1120.100

Table 12. Principal axis factor analysis results for state legitimacy measure (unrotated)

State legitimacy indicator	Factor 1	Factor 2
Confidence in civil services	0.882	-0.049
Confidence in government	0.771	0.196
Confidence in justice system	0.807	-0.113
Refugees	-0.009	0.688
Against tax fraud	0.189	0.154
Never protest	0.195	0.100
Initial eigenvalue	2.563	1.043
Percent explained variance	42.709	17.387

Table 13. Bivariate correlations between state legitimacy indicators, population density and corruption

Variable	A	B	C	D	E	F
A. Population density	1.0					
B. Not Corrupt	-0.090	1.0				
C. *views of legality* factor	0.267*	0.044	1.0			
D. Refugees	0.035	-0.233*	0.186	1.0		
E. Against tax fraud	0.177	-0.024	0.212	0.154	1.0	
F. Never protest	0.132	-0.354*	0.197	0.100	0.116	1.0

* $p < 0.05$

Table 14. *Views of legality* factor ranked by country

Factor Ranking	Country name	*Views of legality* factor
1	Vietnam	2.56
2	Bangladesh	2.41
3	China	2.28
4	Jordan	1.57
5	Malaysia	1.47
6	Tanzania	1.35
7	Switzerland	1.30
8	Uganda	1.18
9	Finland	1.05
10	Ghana	1.00
10	Mali	1.00
10	Philippines	1.00
13	Norway	0.95
14	Turkey	0.80
15	Sweden	0.76
16	Egypt	0.75
17	Cyprus	0.72
18	Nigeria	0.70
19	South Africa	0.64
20	India	0.58
21	Rwanda	0.56
22	Denmark	0.53
23	Iceland	0.52
23	Ireland	0.52
25	Algeria	0.48
25	South Korea	0.48
27	Zimbabwe	0.47
28	Indonesia	0.46
29	Morocco	0.43
30	Luxembourg	0.42
31	Burkina Faso	0.36
32	Canada	0.32
33	Portugal	0.18
34	Brazil	0.17

Factor Ranking	Country name	*Views of legality* factor
35	Albania	0.08
36	Austria	0.05
37	Russia	0.03
37	Thailand	0.03
39	Pakistan	-0.02
40	Hungary	-0.04
41	United Kingdom	-0.10
42	Latvia	-0.12
43	Spain	-0.13
44	Belgium	-0.15
45	United States	-0.16
46	France	-0.19
47	New Zealand	-0.20
48	Kyrgyzstan	-0.23
49	Venezuela	-0.24
50	Zambia	-0.25
51	Australia	-0.26
52	Japan	-0.32
53	Estonia	-0.33
54	Ukraine	-0.37
54	Uruguay	-0.37
56	Bulgaria	-0.46
57	Italy	-0.48
57	Slovak Republic	-0.48
59	Colombia	-0.50
60	Chile	-0.51
60	Iran	-0.51
62	Bosnia-Herzegovina	-0.55
63	Croatia	-0.58
64	Georgia	-0.67
65	Belarus	-0.70
66	Germany	-0.75
67	Mexico	-0.80
68	Netherlands	-0.86
68	Trinidad and	-0.86

Factor Ranking	Country name	*Views of legality* factor
	Tobago	
70	Ethiopia	-0.99
71	Greece	-1.02
72	Romania	-1.05
73	Guatemala	-1.08
74	Czech Republic	-1.27
75	Serbia	-1.28
76	Lithuania	-1.32
77	Moldova	-1.41
78	Slovenia	-1.44
79	Poland	-1.49
80	Argentina	-1.66
81	Macedonia	-1.74
82	Peru	-2.24

Table 15. Percent of the population who reported at least some confidence in civil services, confidence in the national government and confidence in the justice system ranked by country

Rank	Country	Civil serv.	Country	Gov.	Country	Justice Sys.
1	Bangladesh	95.96	Vietnam	98.28	Vietnam	90.31
2	Vietnam	89.27	China	92.73	Jordan	89.60
3	China	85.78	Bangladesh	87.28	Norway	85.95
4	Tanzania	71.30	Jordan	87.09	China	82.49
5	Philippines	70.70	Tanzania	83.03	Japan	81.96
6	Nigeria	70.51	Uganda	77.48	Finland	81.76
7	Malaysia	69.83	Malaysia	75.44	Rwanda	78.62
8	Uganda	68.48	Ghana	71.29	Malaysia	77.69
9	Switzerland	67.86	Mali	70.57	Switzerland	76.76
10	Sweden	65.77	Switzerland	69.33	Denmark	75.69
11	Egypt	63.37	South Africa	66.72	Bangladesh	75.02
12	South Korea	63.11	Finland	64.48	Turkey	74.98
13	Jordan	62.20	Turkey	62.73	Sweden	74.16
14	Ireland	62.12	Uruguay	61.38	Cyprus	73.95
15	Mali	61.96	Egypt	60.74	Iceland	72.02
16	Ghana	61.64	Albania	58.05	Thailand	71.75
17	Norway	61.32	Cyprus	57.77	Bosnia-Herzegovina	70.53
18	Finland	60.14	Venezuela	56.09	India	68.94
19	Zimbabwe	59.44	Indonesia	56.00	Philippines	66.44
20	Burkina Faso	58.48	India	54.92	Canada	65.60
21	Luxembourg	58.10	Morocco	54.69	Austria	65.06
22	Algeria	58.04	Norway	54.08	Morocco	63.85
23	Indonesia	56.35	Algeria	53.97	South Africa	63.51
24	Canada	56.34	Philippines	53.00	Mali	63.39
25	Iceland	55.93	Croatia	52.11	Ghana	63.25
26	Portugal	55.90	Belarus	51.20	United Kingdom	60.64
27	Cyprus	55.86	Colombia	51.04	Albania	58.48
28	Turkey	55.47	Zimbabwe	51.02	United States	58.16
29	Denmark	54.91	Estonia	50.15	Luxembourg	56.49
30	Rwanda	54.78	Burkina Faso	49.08	Germany	56.42
31	India	54.33	Iran	48.73	Uruguay	56.16
32	France	53.75	Chile	48.22	Spain	55.57
33	Russia	52.92	Nigeria	48.18	Ireland	54.76
34	Brazil	52.61	Brazil	46.33	Australia	53.75
35	South Africa	51.98	South Korea	45.94	Indonesia	51.64

Rank	Country	Civil serv.	Country	Gov.	Country	Justice Sys.
36	Morocco	51.33	Russia	45.15	Italy	51.63
37	Pakistan	49.80	Spain	44.94	Pakistan	51.16
38	Hungary	49.32	Mexico	44.74	Zambia	50.17
39	Latvia	49.17	Hungary	43.74	South Korea	50.17
40	Ukraine	48.84	Slovak Republic	43.25	Brazil	49.57
41	Belgium	46.29	Sweden	42.34	Burkina Faso	47.10
42	United Kingdom	46.15	Zambia	42.29	New Zealand	46.95
43	Kyrgyzstan	44.55	New Zealand	41.01	Nigeria	46.62
44	New Zealand	43.91	Australia	40.11	Latvia	44.33
45	Thailand	43.86	Pakistan	39.04	Netherlands	44.11
46	United States	42.73	Thailand	38.58	Greece	43.26
47	Bulgaria	42.63	United States	38.58	Iran	43.14
48	Austria	42.51	Canada	38.39	Hungary	43.10
49	Spain	40.94	Latvia	38.34	Belarus	42.93
50	Italy	40.90	Argentina	36.45	Portugal	40.58
51	Zambia	40.58	Lithuania	36.29	France	40.20
52	Estonia	40.57	Guatemala	36.28	Russia	38.05
53	Georgia	40.54	Kyrgyzstan	35.14	Mexico	37.73
54	Australia	40.09	Bulgaria	34.39	Venezuela	37.43
55	Albania	39.77	United Kingdom	34.33	Bulgaria	37.01
56	Slovak Republic	38.80	Georgia	33.16	Colombia	36.94
57	Venezuela	37.67	Moldova	32.72	Belgium	36.26
58	Chile	35.83	Ukraine	31.19	Ukraine	33.22
59	Trinidad and Tobago	34.70	Japan	31.03	Slovenia	32.89
60	Ethiopia	32.98	Czech Republic	30.62	Trinidad and Tobago	32.89
61	Japan	32.74	Bosnia-Herzegovina	29.53	Poland	32.87
62	Colombia	31.85	France	28.97	Slovak Republic	32.46
63	Germany	31.50	Trinidad and Tobago	27.28	Estonia	30.61
64	Croatia	31.28	Netherlands	26.72	Croatia	30.13
65	Netherlands	30.67	Romania	26.59	Chile	29.96
66	Iran	30.48	Italy	26.44	Moldova	29.83

Rank	Country	Civil serv.	Country	Gov.	Country	Justice Sys.
67	Romania	30.01	Ethiopia	26.40	Romania	29.31
68	Bosnia-Herzegovina	29.94	Serbia	25.59	Serbia	28.45
69	Mexico	25.02	Slovenia	23.97	Ethiopia	27.14
70	Uruguay	23.52	Germany	23.93	Georgia	25.08
71	Serbia	23.05	Poland	18.23	Macedonia	24.38
72	Belarus	22.95	Peru	11.62	Czech Republic	22.47
73	Czech Republic	22.73	Macedonia	10.96	Argentina	19.47
74	Lithuania	20.37	Rwanda	Missing	Lithuania	15.18
75	Poland	18.43	Denmark	Missing	Peru	8.16
76	Macedonia	16.96	Iceland	Missing	Tanzania	Missing
77	Slovenia	16.74	Austria	Missing	Uganda	Missing
78	Guatemala	15.29	Luxembourg	Missing	Zimbabwe	Missing
79	Greece	14.35	Ireland	Missing	Guatemala	Missing
80	Moldova	14.10	Greece	Missing	Kyrgyzstan	Missing
81	Argentina	7.40	Portugal	Missing	Algeria	Missing
82	Peru	5.82	Belgium	Missing	Egypt	Missing

Table 16. Mean State Confidence ranked by country

Rank	Country	Mean State Confidence
1	Vietnam	92.62
2	China	87.00
3	Bangladesh	86.09
4	Jordan	79.63
5	Tanzania	77.17
6	Malaysia	74.32
7	Uganda	72.98
8	Switzerland	71.32
9	Finland	68.79
10	Norway	67.12
11	Rwanda	66.70
12	Ghana	65.39
13	Mali	65.30
14	Denmark	65.30
15	Turkey	64.39
16	Iceland	63.98
17	Philippines	63.38
18	Cyprus	62.53
19	Egypt	62.06
20	Sweden	60.76
21	South Africa	60.74
22	India	59.40
23	Ireland	58.44
24	Luxembourg	57.30
25	Morocco	56.62
26	Algeria	56.00
27	Zimbabwe	55.23
28	Nigeria	55.10
29	Indonesia	54.66
30	Austria	53.79
31	Canada	53.44
32	South Korea	53.07
33	Albania	52.10
34	Burkina Faso	51.55
35	Thailand	51.39

Rank	Country	Mean State Confidence
36	Brazil	49.50
37	Japan	48.58
38	Portugal	48.24
39	Spain	47.15
40	United Kingdom	47.04
41	Uruguay	47.02
42	Pakistan	46.66
43	United States	46.49
44	Hungary	45.39
45	Russia	45.37
46	Australia	44.65
47	Zambia	44.35
48	New Zealand	43.96
49	Latvia	43.95
50	Venezuela	43.73
51	Bosnia-Herzegovina	43.33
52	Belgium	41.27
53	France	40.97
54	Iran	40.78
55	Estonia	40.45
56	Colombia	39.94
57	Kyrgyzstan	39.84
58	Italy	39.66
59	Belarus	39.03
60	Slovak Republic	38.17
61	Bulgaria	38.01
62	Chile	38.00
63	Croatia	37.84
64	Ukraine	37.75
65	Germany	37.28
66	Mexico	35.83
67	Netherlands	33.83
68	Georgia	32.93
69	Trinidad and Tobago	31.62
70	Ethiopia	28.84
71	Greece	28.80
72	Romania	28.64

Rank	Country	Mean State Confidence
73	Guatemala	25.79
74	Serbia	25.70
75	Moldova	25.55
76	Czech Republic	25.28
77	Slovenia	24.53
78	Lithuania	23.95
79	Poland	23.18
80	Argentina	21.11
81	Macedonia	17.43
82	Peru	8.53

Table 17. Refugees ranked by country (including only those countries in the sample that had any refugees)

Refugees Ranking	Country name	Refugees
1	Bosnia-Herzegovina	210
2	Ukraine	3000
3	Mali	4000
3	Mexico	4000
5	Ghana	5000
5	Guatemala	5000
7	Nigeria	7000
8	Albania	10000
8	Algeria	10000
8	Pakistan	10000
11	India	11000
12	Turkey	16000
13	Iran	19000
13	Serbia	19000
15	Uganda	20000
16	Macedonia	23000
17	Russia	26000
18	Indonesia	39000
19	Georgia	44000
20	Philippines	57000
21	Ethiopia	62000
22	Rwanda	71000
23	Morocco	116000
24	China	150000
25	Colombia	258000
26	Vietnam	308000
27	Croatia	340000

Table 18. Against Tax Fraud and Never Protest ranked by country

Rank	Country name	Against Tax Fraud	Rank	Country name	Never Protest
1	Bangladesh	98.80	1	Guatemala	89.334
2	Pakistan	95.15	2	Jordan	88.44
3	Turkey	93.21	3	Pakistan	86.52
4	Ethiopia	90.88	4	Thailand	84.83
5	Indonesia	89.37	5	Egypt	82.50
6	Japan	88.93	6	Vietnam	79.69
7	Tanzania	88.53	7	Philippines	78.56
8	Zimbabwe	88.18	8	Malaysia	71.86
9	Colombia	87.78	9	Rwanda	68.45
10	Argentina	87.56	10	Romania	64.77
11	Jordan	87.47	11	Turkey	63.49
12	Egypt	86.93	12	Hungary	62.80
13	Georgia	85.43	13	Chile	60.18
14	Vietnam	84.88	14	Uruguay	59.64
15	Morocco	84.78	15	Poland	58.46
16	South Korea	83.97	16	Japan	58.15
17	Bosnia-Herzegovina	83.79	17	Ukraine	58.13
18	Venezuela	83.33	18	Venezuela	57.75
19	Canada	81.44	19	Zimbabwe	57.72
20	China	81.17	20	Georgia	55.96
21	Algeria	80.99	21	Russia	55.88
22	Iran	79.11	22	India	53.59
23	Cyprus	78.78	23	Morocco	53.34
24	United States	77.98	24	Bulgaria	53.13
25	Nigeria	77.89	25	Bangladesh	52.54
26	Albania	77.67	26	Kyrgyzstan	51.93
27	Uruguay	77.33	27	Indonesia	51.89
28	Trinidad and Tobago	76.55	28	Belarus	51.70
29	Chile	76.50	29	Estonia	51.64
30	Finland	76.48	30	Finland	51.13
30	Switzerland	76.48	31	South Africa	49.69
32	Australia	76.18	32	Algeria	49.62
33	Czech Republic	75.81	33	Moldova	48.93
34	Romania	75.78	34	Ghana	48.11
35	Slovak Republic	75.76	35	Austria	47.63
36	Macedonia	75.68	35	Colombia	47.63
37	Austria	75.62	37	Nigeria	47.43
38	Spain	75.19	38	Uganda	45.99

Rank	Country name	Against Tax Fraud	Rank	Country name	Never Protest
39	Hungary	75.00	39	Netherlands	43.93
40	Denmark	74.83	40	South Korea	42.95
41	Peru	74.75	41	Bosnia-Herzegovina	42.26
42	New Zealand	74.42	42	Portugal	42.20
43	Netherlands	72.85	43	Serbia	42.02
44	Latvia	71.99	44	Brazil	41.92
45	Italy	71.66	45	Argentina	41.30
46	Rwanda	71.58	46	Mexico	40.68
47	Norway	71.39	47	Macedonia	39.19
48	Bulgaria	71.09	48	United Kingdom	38.92
49	Guatemala	71.07	49	Slovak Republic	38.54
50	Iceland	70.97	50	Slovenia	38.28
51	United Kingdom	70.75	51	Cyprus	37.08
52	Sweden	70.38	52	Peru	36.29
53	Germany	70.37	53	Latvia	35.93
54	Slovenia	70.21	54	Zambia	35.91
55	Ireland	70.05	55	Canada	33.86
56	Mexico	69.97	56	Ireland	33.40
57	South Africa	69.11	57	Mali	33.11
58	Portugal	68.38	58	Switzerland	32.98
59	Poland	66.91	59	Germany	32.04
60	Burkina Faso	66.47	60	Australia	31.88
61	Croatia	66.20	61	Italy	30.98
62	Kyrgyzstan	65.19	62	Lithuania	30.84
63	India	63.21	63	United States	30.52
64	France	62.76	64	Denmark	30.40
65	Mali	62.55	65	France	30.34
66	Uganda	61.82	66	Ethiopia	29.83
67	Russia	58.56	67	New Zealand	29.08
68	Philippines	53.97	68	Belgium	28.97
69	Greece	53.75	69	Czech Republic	28.88
70	Luxembourg	52.66	70	Burkina Faso	27.27
71	Estonia	52.62	71	Trinidad and Tobago	27.13
72	Thailand	52.45	72	Norway	25.64
73	Brazil	50.54	73	Spain	24.48
74	Lithuania	49.07	74	Luxembourg	23.86
75	Ukraine	48.83	75	Albania	23.54
76	Moldova	48.64	76	Croatia	22.93
77	Belgium	48.07	77	Sweden	20.91
78	Zambia	46.70	78	Iceland	19.73
79	Malaysia	40.67	79	Tanzania	15.71

Rank	Country name	Against Tax Fraud	Rank	Country name	Never Protest
80	Serbia	39.61	80	Greece	13.75
81	Belarus	37.24	81	China	[Missing]
82	Ghana	[Missing]	82	Iran	[Missing]

Table 19. Correlation matrix among variables

Variable	A	B	C	D	E	F	G
A. Proportion of attacks on police	1.0						
B. Proportion fatal attacks on police	0.730	1.0					
C. Confidence in police	-0.118	-0.232	1.0				
D. Mean State Confidence	-0.127	-0.202	0.706	1.0			
E. Refugees	0.002	0.042	0.075	0.173	1.0		
F. Against Tax Fraud	-0.041	0.008	0.222	0.221	0.147	1.0	
G. Never Protest	0.033	-0.030	-0.033	0.196	0.117	0.134	1.0
H. Schism	0.343	0.501	-0.247	-0.024	0.161	0.049	0.190
I. Presence of Foreign Military	0.262	0.251	-0.336	-0.266	0.270	-0.081	0.138
J. Police per capita	0.032	0.061	-0.315	-0.382	-0.148	-0.270	-0.051
K. Autocratic	0.023	0.001	0.100	0.221	0.333	0.144	0.380
L. Anocratic	-0.045	-0.095	-0.016	0.200	0.109	-0.033	0.094
M. Democratic	0.024	0.082	-0.050	-0.314	-0.306	-0.062	-0.322
N. GDP	-0.176	-0.225	0.512	0.110	-0.212	-0.003	-0.439
O. Gini Index	0.248	0.314	-0.217	0.018	0.126	0.087	0.405
P. Civil War	0.140	0.227	-0.049	0.120	0.156	0.203	0.233
Q. Interstate War	0.060	0.070	0.185	-0.082	-0.082	0.157	-0.088
R. Homicide	0.048	0.080	-0.241	0.072	0.106	-0.049	0.180
S. Regional Terrorism	0.035	0.033	0.276	0.420	-0.008	0.304	0.330
T. Death Penalty	0.153	0.158	-0.125	0.176	0.067	0.116	0.443
U. Not Corrupt	-0.191	-0.289	0.571	0.101	-0.228	-0.026	-0.361
V. Population Density	0.005	-0.078	0.061	0.239	0.032	0.167	0.128

Variable	H	I	J	K	L	M	N
H. Schism	1.0						
I. Presence of Foreign Military	0.159	1.0					
J. Police per capita	0.008	-0.043	1.0				
K. Autocratic	0.144	0.129	-0.145	1.0			
L. Anocratic	-0.060	0.170	-0.162	-0.146	1.0		
M. Democratic	-0.039	-0.230	0.233	-0.504	-0.781	1.0	
N. GDP	-0.348	-0.343	-0.049	-0.215	-0.332	0.426	1.0
O. Gini Index	0.363	0.124	-0.145	0.013	0.174	-0.160	-0.401
P. Civil War	0.189	0.119	-0.138	-0.023	0.202	-0.161	-0.259
Q. Interstate War	0.203	0.003	-0.178	-0.004	-0.109	0.098	0.286
R. Homicide	0.224	0.064	-0.173	-0.140	0.262	-0.140	-0.394
S. Regional Terrorism	0.036	0.011	-0.145	0.413	0.102	-0.350	-0.168
T. Death Penalty	0.348	-0.011	-0.189	0.364	0.165	-0.374	-0.257
U. Not Corrupt	-0.350	-0.378	-0.008	-0.204	-0.368	0.450	0.866
V. Population Density	-0.015	0.017	-0.235	-0.006	-0.101	0.092	0.046

Variable	O	P	Q	R	S	T	U
O. Gini Index	1.0						
P. Civil War	0.262	1.0					
Q. Interstate War	-0.112	0.270	1.0				
R. Homicide	0.687	0.295	-0.181	1.0			
S. Regional Terrorism	0.043	0.212	0.087	-0.114	1.0		
T. Death Penalty	0.337	0.190	0.023	0.157	0.208	1.0	
U. Not Corrupt	-0.379	-0.285	0.265	-0.399	-0.165	-0.336	1.0
V. Population Density	-0.126	0.050	0.134	-0.120	0.178	0.150	-0.084

Variable	V
V. Population Density	1.0

Table 20. Tobit models with proportion of terrorist attacks on police as dependent variable (*n*=82)

	Prediction	Model 1	Model 2	Model 3	Model 4
Confidence in Police	-	-0.0009 (0.0011)	0.0009 (0.0015)	0.0019 (0.0015)	0.0014 (0.0013)
Societal schism	+			0.0248* (0.0112)	0.0309** (0.0102)
Foreign military presence	+			0.1287** (0.0519)	0.1298** (0.0491)
Police per capita	+			0.0001 (0.0001)	0.0000 (0.0001)
Autocracy	+		-0.0566 (0.0974)	-0.0911 (0.0969)	-0.0521 (0.0744)
Anocracy	+		-0.0524 (0.0644)	-0.0380 (0.0644)	-0.0049 (0.0529)
Gini Index	+		0.0083* (0.0036)	0.0063* (0.0034)	0.0067** (0.0032)
Civil war	+		0.0355 (0.0627)	0.0426 (0.0594)	
Interstate war	+		0.1020† (0.0661)	0.0308 (0.0664)	
Homicide	+		-0.0044 (0.0026)	-0.0035 (0.0025)	-0.0033 (0.0023)
Regional terrorism	+		0.0000 (0.0000)	0.0000 (0.0000)	
Death penalty	+		0.0259 (0.0535)	0.0358 (0.0550)	
Not Corrupt	-		-0.0274* (0.0159)	-0.0101 (0.0157)	
Population density	+		0.0000 (0.0001)	0.0000 (0.0001)	
Constant		0.0574 (0.0688)	-0.1944 (0.1480)	-0.4104* (0.1803)	-0.4260** (0.1572)
Sigma		0.1826**	0.1655**	0.1537**	0.1558**

Notes: Unstandardized coefficients are presented, with standard errors in parentheses below.
† *p*<0.10; * *p*<0.05; ** *p*<0.01; all tests are one-tailed.
To keep the results table simple, directional hypotheses were assigned to control variables based on their expected directional relationship to terrorism in general.

Table 21. Tobit models with proportion of terrorist attacks on police as dependent variable (*n*=82)

	Prediction	Model 5	Model 6	Model 7	Model 8
Mean State Confidence	-	-0.0012 (0.0014)	-0.0003 (0.0017)	0.0006 (0.0018)	0.0011 (0.0015)
Refugees	+	0.0001 (0.0004)	-0.0002 (0.0004)	-0.0005 (0.0004)	-0.0005 (0.0004)
Against tax fraud	-	0.0004 (0.0017)	-0.0016 (0.0016)	-0.0007 (0.0016)	-0.0004 (0.0015)
Never protest	-	0.0008 (0.0013)	-0.0028* (0.0016)	-0.0033* (0.0016)	-0.0024* (0.0014)
Societal schism	+			0.0250* (0.0114)	0.0284** (0.0099)
Foreign military presence	+			0.1325** (0.0551)	0.1361** (0.0505)
Police per capita	+			0.0001 (0.0001)	0.0000 (0.0001)
Autocracy	+		0.0397 (0.1107)	0.0486 (0.1107)	
Anocracy	+		-0.0286 (0.0641)	-0.0058 (0.0663)	
Gini Index	+		0.0105** (0.0038)	0.0089** (0.0037)	0.0087** (0.0035)
Civil war	+		0.0734 (0.0658)	0.0888† (0.0634)	0.0894* (0.0531)
Interstate war	+		0.0826 (0.0681)	0.0103 (0.0700)	
Homicide	+		-0.0048 (0.0026)	-0.0039 (0.0025)	-0.0046 (0.0023)
Regional terrorism	+		0.0000 (0.0000)	0.0000 (0.0000)	
Death penalty	+		0.0321 (0.0543)	0.0313 (0.0560)	
Not Corrupt	-		-0.0210† (0.0138)	-0.0007 (0.0143)	
Population density	+		0.0001 (0.0001)	(0.0001) (0.0002)	
Constant		-0.0009 (0.1338)	-0.0329 (0.1739)	-0.2846† (0.2114)	-0.3270* (0.1850)
Sigma		0.1821**	0.1616**	0.1506**	0.1519**

Notes: Unstandardized coefficients are presented, with standard errors in parentheses below.
† *p*<0.10; * *p*<0.05; ** *p*<0.01; all tests are one-tailed.

Table 22. Tobit models with proportion of fatal terrorist attacks directed against police as dependent variable (*n*=82)

	Prediction	Model 9	Model 10	Model 11	Model 12
Confidence in Police	-	-0.0039* (0.0020)	0.0006 (0.0022)	0.0018 (0.0020)	0.0006 (0.0020)
Societal schism	+			0.0768** (0.0196)	0.0742** (0.0190)
Foreign military presence	+			0.1023† (0.0664)	0.1017† (0.0686)
Police per capita	+			0.0000 (0.0002)	0.0002 (0.0002)
Autocracy	+		-0.1892 (0.1430)	-0.2042 (0.1278)	
Anocracy	+		-0.1681 (0.0940)	-0.0954 (0.0855)	
Gini Index	+		0.0179** (0.0060)	0.0161** (0.0054)	0.0136** (0.0050)
Civil war	+		0.0907 (0.0924)	0.0741 (0.0765)	0.0988 (0.0811)
Interstate war	+		0.2388* (0.1100)	0.1303† (0.0979)	0.1093 (0.1026)
Homicide	+		-0.0120 (0.0047)	-0.0108 (0.0036)	-0.0084 0.0034
Regional terrorism	+		0.0000 (0.0000)	0.0000 (0.0000)	
Death penalty	+		0.0124 (0.0795)	-0.0717 (0.0800)	
Not Corrupt	-		-0.0894** (0.0286)	-0.0640** (0.0253)	-0.0362† (0.0224)
Population density	+		-0.0002 (0.0002)	-0.0001 (0.0002)	
Constant		0.1184 (0.1158)	-0.2666 (0.2309)	-0.6779** (0.2764)	-0.7638** (0.2646)
Sigma		0.2913**	0.2216**	0.1793**	0.1973**

Notes: Unstandardized coefficients are presented, with standard errors in parentheses below.
† $p<0.10$; * $p<0.05$; ** $p<0.01$; all tests are one-tailed.

Table 23. Tobit models with proportion of fatal terrorist attacks directed against police as dependent variable (*n*=82)

	Prediction	Model 13	Model 14	Model 15	Model 16
Mean State Confidence	-	-0.0033† (0.0024)	0.0002 (0.0024)	0.0007 (0.0024)	0.0005 (0.0021)
Refugees	+	0.0006 (0.0006)	0.0002 (0.0006)	-0.0003 (0.0005)	-0.0004 (0.0005)
Against tax fraud	-	0.0025 (0.0030)	-0.0020 (0.0025)	-0.0004 (0.0023)	0.0005 (0.0022)
Never protest	-	0.0007 (0.0023)	-0.0061** (0.0023)	-0.0068** (0.0022)	-0.0069** (0.0021)
Societal schism	+			0.0724** (0.0183)	0.0730** (0.0164)
Foreign military presence	+			0.1172† (0.0717)	0.1374* (0.0709)
Police per capita	+			0.0001 (0.0002)	0.0001 (0.0002)
Autocracy	+		-0.0798 (0.1657)	-0.0071 (0.1487)	
Anocracy	+		-0.1576 (0.0896)	-0.0613 (0.0838)	
Gini Index	+		0.0214** (0.0060)	0.0203** (0.0054)	0.0185** (0.0050)
Civil war	+		0.1412† (0.0941)	0.1411* (0.0778)	0.1751** (0.0657)
Interstate war	+		0.2031* (0.1066)	0.0983 (0.0943)	
Homicide	+		-0.0123 (0.0046)	-0.0107 (0.0034)	-0.0106 (0.0033)
Regional terrorism	+		0.0000 (0.0000)	0.0000 (0.0000)	
Death penalty	+		0.0326 (0.0771)	-0.0642 (0.0759)	
Not Corrupt	-		-0.0860** (0.0249)	-0.0549** (0.0219)	-0.0358* (0.0157)
Population density	+		-0.0001 (0.0002)	0.0001 (0.0002)	
Constant		-0.1677 (0.2429)	-0.0016 (0.2708)	-0.5221† (0.3334)	-0.5977* (0.3236)
Sigma		0.2944**	0.2038**	-0.1608**	0.1673**

Notes: Unstandardized coefficients are presented, with standard errors in parentheses below.

† *p*<0.10; * *p*<0.05; ** *p*<0.01; all tests are one-tailed.

Table 24. Negative binomial regression models with total number of terrorist attacks directed against police, 1999-2008 as dependent variable (n=82); total number of police per country used as exposure variable

	Prediction	Model 1	Model 2	Model 3	Model 4
Confidence in Police	-	-0.0248 (0.0205)	0.0194 (0.0168)	0.0286 (0.0163)	0.0276 (0.0151)
Societal schism	+			0.2909* (0.1285)	0.2575* (0.1280)
Foreign military presence	+			1.6349** (0.6086)	2.1919** (0.4975)
Police per capita	+			-0.0014 (0.0016)	-0.0002 (0.0015)
Non-police targeted terrorism	+		0.0037** (0.0012)	0.0033** (0.0012)	0.0038** (0.0010)
Autocracy	+		-2.3626 (1.1386)	-3.0100 (1.2136)	-2.8049 (0.8992)
Anocracy	+		0.1284 (0.8189)	0.0651 (0.9176)	1.1088* (0.6572)
Gini Index	+		0.0669† (0.0441)	0.0309 (0.0419)	0.0348 (0.0429)
Civil war	+		0.4100 (0.9065)	0.7423 (0.9264)	
Interstate war	+		0.4730 (0.7205)	-0.4561 (0.6780)	
Homicide	+		-0.0512 (0.0265)	-0.0386 (0.0257)	-0.0323 (0.0262)
Regional terrorism	+		-0.0001 (0.0002)	0.0001 (0.0002)	
Death penalty	+		-1.6254 (0.6456)	-0.9830 (0.7302)	
Not Corrupt	-		-0.4967** (0.1545)	-0.2288† (0.1670)	
Population density	+		-0.0004 (0.0016)	-0.0007 (0.0017)	
Constant		-18.8580** (1.1883)	-21.7529** (1.8926)	-23.6471** (2.2551)	-25.6002** (2.2049)

Note: Unstandardized coefficients are presented, with standard errors in parentheses below.
† p<0.10; * p<0.05; ** p<0.01; all tests are one-tailed.

Table 25. Negative binomial regression models with total number of terrorist attacks directed against police, 1999-2008 as dependent variable (*n*=82)

	Prediction	Model 5	Model 6	Model 7	Model 8
Mean State Confidence	-	-0.0330* (0.0155)	-0.0141 (0.0190)	-0.0035 (0.0216)	0.0107 (0.0209)
Refugees	+	0.0054 (0.0055)	-0.0016 (0.0065)	-0.0058 (0.0055)	-0.0101 (0.0054)
Against tax fraud	-	0.0263 (0.0192)	0.0453 (0.0187)	0.0359 (0.0192)	0.0316 (0.0200)
Never protest	-	0.0214 (0.0147)	-0.0421* (0.0198)	-0.0463* (0.0219)	-0.0627** (0.0221)
Societal schism	+			0.2634* (0.1355)	0.1389 (0.1347)
Foreign military presence	+			1.3624* (0.7312)	2.5316** (0.6952)
Police per capita	+			-0.0003 (0.0016)	-0.0000 (0.0018)
Non-police targeted terrorism	+		0.0051** (0.0012)	0.0037** (0.0013)	0.0033* (0.0014)
Autocracy	+		-0.9210 (1.4048)	-0.7828 (1.3474)	
Anocracy	+		1.1044 (0.7559)	1.1315 (0.8511)	
Gini Index	+		0.0827* (0.0465)	0.0585 (0.0493)	0.0696† (0.0539)
Civil war	+		-0.0284 (0.8137)	0.7498 (0.9127)	1.5625* (0.8132)
Interstate war	+		-0.2237 (0.7143)	-0.6787 (0.7056)	
Homicide	+		-0.0429 (0.0273)	-0.0321 (0.0291)	-0.0290 (0.0317)
Regional terrorism	+		-0.0001 (0.0002)	0.0001 (0.0002)	
Death penalty	+		-1.4331 (0.6288)	-1.2399 (0.7603)	
Not Corrupt	-		-0.3104* (0.1506)	-0.1050 (0.1556)	
Population density	+		0.0004 (0.0017)	0.0005 (0.0018)	
Constant		-21.9357** (1.6722)	-23.3615** (1.9927)	-24.4745** (2.4341)	-25.1075** (2.3412)

Note: Unstandardized coefficients are presented, with standard errors in parentheses below.
† *p*<0.10; * *p*<0.05; ** *p*<0.01; all tests are one-tailed.

Table 26. Negative binomial regression models with total number of fatal terrorist attacks directed against police, 1999-2008 as dependent variable (*n*=82)

	Prediction	Model 9	Model 10	Model 11	Model 12
Confidence in Police	-	-0.0261 (0.0248)	0.0068 (0.0176)	0.0137 (0.0175)	0.0227 (0.0172)
Societal schism	+			0.4441** (0.1830)	0.3248* (0.1723)
Foreign military presence	+			1.1837* (0.6140)	1.5743** (0.5360)
Police per capita	+			-0.0038 (0.0018)	-0.0028 (0.0017)
Non-police targeted terrorism	+		0.0038** (0.0012)	0.0040** (0.0013)	0.0034** (0.0013)
Autocracy	+		-2.1807 (1.1458)	-3.5432 (1.2980)	-3.6398 (1.1293)
Anocracy	+		0.4035 (0.8813)	-2.2242 (0.9929)	
Gini Index	+		0.0816† (0.0501)	0.0283 (0.0478)	0.0596† (0.0426)
Civil war	+		1.0011 (0.9732)	0.8117 (0.9721)	1.8505* (0.8704)
Interstate war	+		-0.1849 (0.8698)	-0.9876 (0.8093)	-1.4812 (0.8095)
Homicide	+		-0.0676 (0.0353)	-0.0611 (0.0326)	-0.0885 (0.0334)
Regional terrorism	+		-0.0001 (0.0002)	0.0002 (0.0002)	
Death penalty	+		-1.2778 (0.6832)	-0.9249 (0.7968)	
Not Corrupt	-		-0.7488** (0.1964)	-0.6301** (0.2146)	-0.5196** (0.1890)
Population density	+		-0.0007 (0.0018)	-0.0029 (0.0019)	
Constant		-19.5054** (1.4339)	-21.8843** (2.1143)	-21.7286** (2.6080)	-23.9912** (2.2109)

Note: Unstandardized coefficients are presented, with standard errors in parentheses below.
† *p*<0.10; * *p*<0.05; ** *p*<0.01; all tests are one-tailed.

Table 27. Negative binomial regression models with total number of fatal terrorist attacks directed against police, 1999-2008 as dependent variable (*n*=82)

	Prediction	Model 13	Model 14	Model 15	Model 16
Mean State Confidence	-	-0.0172 (0.0190)	0.0009 (0.0189)	0.0076 (0.0211)	0.0096 (0.0221)
Refugees	+	0.0078 (0.0071)	-0.0004 (0.0056)	-0.0037 (0.0047)	-0.0019 (0.0051)
Against tax fraud	-	0.036 (0.0256)	0.0569 (0.0218)	0.0570 (0.0221)	0.0423 (0.0241)
Never protest	-	0.0382 (0.0205)	-0.0321* (0.0197)	-0.0408* (0.0210)	-0.0468* (0.0229)
Societal schism	+			0.3650* (0.1677)	0.2873† (0.1752)
Foreign military presence	+			0.9513† (0.6734)	0.7871 (0.6795)
Police per capita	+			-0.0011 (0.0018)	-0.0012 (0.0017)
Non-police targeted terrorism	+		0.0053** (0.0012)	0.0045** (0.0011)	0.0050** (0.0013)
Autocracy	+		-1.7229 (1.4095)	-1.9149 (1.3549)	-2.4162 (1.2876)
Anocracy	+		1.1653 (0.7613)	0.9874 (0.9648)	
Gini Index	+		0.1141* (0.0501)	0.0799† (0.0558)	0.0931* (0.0525)
Civil war	+		0.6315 (0.8567)	0.9201 (0.8584)	0.6525 (0.7499)
Interstate war	+		-0.6149 (0.8239)	-1.2059 (0.7953)	
Homicide	+		-0.0792 (0.0373)	-0.0600 (0.0327)	-0.0671 (0.0354)
Regional terrorism	+		-0.0001 (0.0002)	0.0000 (0.0002)	
Death penalty	+		-1.2786 (0.6036)	-1.3094 (0.7898)	-1.3397 (0.6780)
Not Corrupt	-		-0.7739** (0.2023)	-0.5862** (0.2089)	-0.8230** (0.1834)
Population density	+		-0.0008 (0.0018)	-0.0017 (0.0020)	
Constant		-25.0569** (2.3539)	-25.1234** (2.5130)	-26.4856** (3.4978)	-24.4679** (3.3203)

Note: Unstandardized coefficients are presented, with standard errors in parentheses below.
† $p<0.10$; * $p<0.05$; ** $p<0.01$; all tests are one-tailed.

Table 28. Survey waves used for each country, testing for stability of the legitimacy indicators

Confidence in the police		Confidence in the government		Confidence in the civil services	
Country	Waves	Country	Waves	Country	Waves
Albania	1994, 1999	Albania	1994, 1999	Albania	1994, 1999
Argentina	1999, 2005	Argentina	1999, 2005	Argentina	1999, 2005
Australia	1994, 2005	Australia	1994, 2005	Australia	1994, 2005
Austria	1989, 1999	Bangladesh	1994, 1999	Austria	1989, 1999
Bangladesh	1994, 1999	Bosnia and Herzegovina	1994, 1999	Bangladesh	1994, 1999
Belarus	1994, 1999	Brazil	1994, 2005	Belarus	1994, 1999
Belgium	1989, 1999	Bulgaria	1994, 2005	Belgium	1989, 1999
Bosnia and Herzegovina	1994, 1999	Canada	1999, 2005	Bosnia and Herzegovina	1994, 1999
Brazil	1994, 2005	Chile	1999, 2005	Brazil	1994, 2005
Bulgaria	1999, 2005	China	1999, 2005	Bulgaria	1999, 2005
Canada	1999, 2005	Taiwan	1994, 2005	Canada	1999, 2005
Chile	1999, 2005	Colombia	1994, 2005	Chile	1999, 2005
China	1999, 2005	Czech Republic	1989, 1994	China	1999, 2005
Colombia	1994, 2005	Finland	1994, 2005	Colombia	1994, 2005
Croatia	1994, 1999	Georgia	1994, 2005	Croatia	1994, 1999
Czech Republic	1994, 1999	Germany	1994, 2005	Czech Republic	1994, 1999
Denmark	1981, 1999	India	1999, 2005	Denmark	1989, 1999
Estonia	1994, 1999	Indonesia	1999, 2005	Egypt	1999, 2005
Finland	1999, 2005	Iran	1999, 2005	Estonia	1994, 1999
France	1999, 2005	Iraq	1999, 2005	Finland	1999, 2005
Georgia	1994, 2005	Japan	1999, 2005	France	1999, 2005
Germany	1999, 2005	Jordan	1999, 2005	Georgia	1994, 2005
Great Britain	1999, 2005	South Korea	1999, 2005	Germany	1999, 2005
Hungary	1994, 1999	Mexico	1999, 2005	Great Britain	1999, 2005
Iceland	1989, 1999	Moldova	1999, 2005	Hungary	1994, 1999
India	1999, 2005	Morocco	1999, 2005	Iceland	1989, 1999
Indonesia	1999, 2005	New Zealand	1994, 2005	India	1999, 2005
Iran	1999, 2005	Nigeria	1994, 1999	Indonesia	1999, 2005
Ireland	1989, 1999	Norway	1994, 2005	Iran	1999, 2005
Italy	1999, 2005	Peru	1999, 2005	Ireland	1989, 1999
Japan	1999, 2005	Philippines	1994, 1999	Italy	1999, 2005
Jordan	1999, 2005	Poland	1994, 2005	Japan	1999, 2005

Confidence in the police		Confidence in the government		Confidence in the civil services	
Latvia	1994, 1999	Puerto Rico	1994, 1999	Jordan	1999, 2005
Lithuania	1994, 1999	Romania	1994, 2005	Latvia	1994, 1999
Macedonia	1994, 1999	Russian Federation	1994, 2005	Lithuania	1994, 1999
Malta	1989, 1999	Slovakia	1989, 1994	Macedonia	1994, 1999
Mexico	1999, 2005	Viet Nam	1999, 2005	Malta	1989, 1999
Netherlands	1999, 2005	Slovenia	1994, 2005	Mexico	1999, 2005
New Zealand	1994, 2005	South Africa	1999, 2005	Moldova	1999, 2005
Nigeria	1994, 1999	Spain	1999, 2005	Morocco	1999, 2005
Northern Ireland	1989, 1999	Sweden	1994, 2005	Netherlands	1999, 2005
Norway	1994, 2005	Switzerland	1994, 2005	New Zealand	1994, 2005
Pakistan	1994, 1999	Turkey	1999, 2005	Nigeria	1994, 1999
Peru	1999, 2005	Ukraine	1994, 2005	Northern Ireland	1989, 1999
Philippines	1994, 1999	Macedonia	1994, 1999	Norway	1994, 2005
Poland	1999, 2005	United States	1999, 2005	Pakistan	1994, 1999
Portugal	1989, 1999	Uruguay	1994, 2005	Peru	1999, 2005
Puerto Rico	1994, 1999	Venezuela	1994, 1999	Philippines	1994, 1999
Romania	1999, 2005	Serbia and Montenegro	1994, 1999	Poland	1999, 2005
Russian Federation	1999, 2005			Portugal	1989, 1999
Serbia and Montenegro	1994, 1999			Puerto Rico	1994, 1999
Slovakia	1994, 1999			Romania	1999, 2005
Slovenia	1999, 2005			Russian Federation	1999, 2005
South Africa	1999, 2005			Serbia and Montenegro	1994, 1999
South Korea	1999, 2005			Slovakia	1994, 1999
Spain	1999, 2005			Slovenia	1999, 2005
Sweden	1999, 2005			South Africa	1999, 2005
Switzerland	1994, 2005			South Korea	1999, 2005
Taiwan	1994, 2005			Spain	1999, 2005
Turkey	1999, 2005			Sweden	1999, 2005
Ukraine	1999, 2005			Switzerland	1994, 2005
United	1999, 2005			Taiwan	1994, 2005

Confidence in the police		Confidence in the government		Confidence in the civil services	
States					
Uruguay	1994, 2005			Turkey	1999, 2005
Venezuela	1994, 1999			Ukraine	1999, 2005
Viet Nam	1999, 2005			United States	1999, 2005
				Uruguay	1994, 2005
				Venezuela	1994, 1999
				Viet Nam	1999, 2005

Confidence in the justice system		Never okay to cheat on taxes		Would never participate in legal protest	
Country	**Waves**	**Country**	**Waves**	**Country**	**Waves**
Argentina	1994, 2005	Albania	1994, 1999	Albania	1994, 1999
Australia	1994, 2005	Argentina	1999, 2005	Argentina	1999, 2005
Austria	1989, 1999	Australia	1994, 2005	Australia	1994, 2005
Belarus	1994, 1999	Austria	1989, 1999	Austria	1989, 1999
Belgium	1989, 1999	Bangladesh	1994, 1999	Bangladesh	1994, 1999
Brazil	1994, 2005	Belarus	1994, 1999	Belarus	1994, 1999
Bulgaria	1999, 2005	Belgium	1989, 1999	Belgium	1989, 1999
Canada	1989, 2005	Bosnia and Herzegovina	1994, 1999	Bosnia and Herzegovina	1994, 1999
Chile	1994, 2005	Brazil	1994, 2005	Brazil	1994, 2005
China	1989, 2005	Bulgaria	1999, 2005	Bulgaria	1999, 2005
Colombia	1994, 2005	Canada	1999, 2005	Canada	1999, 2005
Croatia	1994, 1999	Chile	1999, 2005	Chile	1999, 2005
Czech Republic	1994, 1999	China	1999, 2005	Colombia	1994, 2005
Denmark	1989, 1999	Colombia	1994, 2005	Croatia	1994, 1999
Estonia	1994, 1999	Croatia	1994, 1999	Czech Republic	1994, 1999
Finland	1999, 2005	Czech Republic	1994, 1999	Denmark	1989, 1999
France	1999, 2005	Denmark	1989, 1999	Egypt	1999, 2005
Georgia	1994, 2005	Egypt	1999, 2005	Estonia	1994, 1999
Germany	1999, 2005	Estonia	1994, 1999	Finland	1999, 2005
Great Britain	1999, 2005	Finland	1999, 2005	France	1999, 2005
Hungary	1994, 1999	France	1999, 2005	Georgia	1994, 2005
Iceland	1989, 1999	Georgia	1994, 2005	Germany	1999, 2005
India	1994, 2005	Germany	1999, 2005	Great Britain	1999, 2005
Ireland	1989, 1999	Great	1999, 2005	Hungary	1994, 1999

Confidence in the justice system		Never okay to cheat on taxes		Would never participate in legal protest	
		Britain		Iceland	1989, 1999
Italy	1999, 2005	Hungary	1994, 1999	India	1999, 2005
Japan	1994, 2005	Iceland	1989, 1999	Indonesia	1999, 2005
Latvia	1994, 1999	India	1999, 2005	Ireland	1989, 1999
Lithuania	1994, 1999	Indonesia	1999, 2005	Italy	1999, 2005
Malta	1989, 1999	Iran	1999, 2005	Japan	1999, 2005
Mexico	1994, 2005	Ireland	1989, 1999	Jordan	1999, 2005
Moldova	1994, 2005	Italy	1999, 2005	Latvia	1994, 1999
Netherlands	1999, 2005	Japan	1999, 2005	Lithuania	1994, 1999
New Zealand	1994, 2005	Jordan	1999, 2005	Lithuania	1994, 1999
Nigeria	1989, 1994	Latvia	1994, 1999	Macedonia	1994, 1999
Northern Ireland	1989, 1999	Lithuania	1994, 1999	Malta	1989, 1999
Norway	1994, 2005	Macedonia	1994, 1999	Mexico	1999, 2005
Peru	1994, 2005	Malta	1989, 1999	Moldova	1999, 2005
Poland	1999, 2005	Mexico	1999, 2005	Morocco	1999, 2005
Portugal	1989, 1999	Moldova	1999, 2005	Netherlands	1999, 2005
Romania	1999, 2005	Morocco	1999, 2005	New Zealand	1994, 2005
Russian Federation	1999, 2005	Netherlands	1999, 2005	Nigeria	1994, 1999
Slovakia	1994, 1999	New Zealand	1994, 2005	Northern Ireland	1989, 1999
Slovenia	1999, 2005	Nigeria	1994, 1999	Norway	1994, 2005
South Africa	1994, 2005	Northern Ireland	1989, 1999	Peru	1999, 2005
South Korea	1994, 2005	Norway	1994, 2005	Philippines	1994, 1999
Spain	1999, 2005	Peru	1994, 1999	Poland	1999, 2005
Sweden	1994, 2005	Philippines	1994, 1999	Portugal	1989, 1999
Switzerland	1994, 2005	Poland	1999, 2005	Puerto Rico	1994, 1999
Taiwan	1994, 2005	Portugal	1989, 1999	Romania	1999, 2005
Turkey	1999, 2005	Puerto Rico	1994, 1999	Russian Federation	1999, 2005
Ukraine	1999, 2005	Romania	1999, 2005	Serbia and Montenegro	1994, 1999
United States	1994, 2005	Russian Federation	1999, 2005	Slovakia	1994, 1999
Uruguay	1994, 2005	Serbia and Montenegro	1994, 1999	Slovenia	1999, 2005
		Slovakia	1994, 1999	South Africa	1999, 2005

Confidence in the justice system		Never okay to cheat on taxes		Would never participate in legal protest	
		Slovenia	1999, 2005	South Korea	1999, 2005
		South Africa	1999, 2005	Spain	1999, 2005
		South Korea	1999, 2005	Sweden	1999, 2005
		Spain	1999, 2005	Switzerland	1994, 2005
		Sweden	1999, 2005	Taiwan	1994, 2005
		Switzerland	1994, 2005	Turkey	1999, 2005
		Taiwan	1994, 2005	Ukraine	1999, 2005
		Turkey	1999, 2005	United States	1999, 2005
		Ukraine	1999, 2005	Uruguay	1994, 2005
		United States	1999, 2005	Venezuela	1994, 1999
		Uruguay	1994, 2005	Viet Nam	1999, 2005
		Venezuela	1994, 2005		
		Viet Nam	1999, 2005		

Table 29. Summary of missingness

Number of missing values per country	Number of countries	Percent of countries
0	57	69.51
1	20	24.39
2	5	6.10
Total	82	100.00

Table 30. Descriptive statistics of terrorist incidents targeting police for each imputation method

	n	Complete case analysis		Mean substitution		Multiple imputation	
		Mean (s)	Range	Mean (s)	Range	Mean (s)	Range
Attacks on police	82	0.078 (0.107)	0-0.391	0.078 (0.107)	0-0.391	0.078 (0.106)	0-0.391
Fatal attacks on police	82	0.077 (0.136)	0-0.667	0.077 (0.136)	0-0.667	0.077 (0.135)	0-0.667
Confidence in Police	82	56.815 (20.081)	15.680-91.990	56.815 (20.081)	15.680-91.990	56.815 (19.961)	15.680-91.990
Confidence in civil services	82	45.807 (18.528)	5.821-95.960	45.807 (18.528)	5.821-95.960	45.807 (18.417)	5.821-95.960
Confidence in national government	73	46.952 (18.562)	10.962-98.283	46.952 (17.500)	10.962-98.283	46.768 (18.160)	4.027-100.00
Confidence in justice system	75	51.444 (19.550)	8.516-90.314	51.444 (18.686)	8.516-90.314	52.479 (19.503)	8.156-100.00
Refugees (in millions)	82	19.966 (60.760)	0-340	19.966 (60.760)	0-340	19.965 (60.397)	0-340
Against tax fraud	81	71.811 (13.589)	37.240-98.796	71.811 (13.505)	37.240-98.796	71.911 (13.550)	37.240-100.00
Never protest	80	45.607 (17.657)	13.748-89.336	45.607 (17.438)	13.748-89.336	45.958 (17.620)	13.748-90.186
Societal schism	82	3.090 (2.218)	0-8	3.090 (2.218)	0-8	3.085 (2.205)	0-8
Presence of foreign military 1=presence 0=absence	82	24% 76%		24% 76%		24% 76%	
Police per capita	74	298.681 (175.950)	13.522-814.454	298.681 (167.036)	13.522-814.454	294.675 (177.005)	0-834.781
Regime type Autocracy Anocracy	82	9% 18%		9% 18%		9% 18%	

	n	Complete case analysis		Mean substitution		Multiple imputation	
		Mean (*s*)	Range	Mean (s)	Range	Mean (s)	Range
Democracy		73%		73%		73%	
GDP (in thousands)	81	9.696 (12.009)	0.175-43.419	9.696 (11.935)	0.175-43.419	9.696 (11.937)	0.175-43.420
Gini Index	81	36.912 (9.186)	21.7-65.0	36.912 (9.129)	21.7-65.0	36.883 (9.127)	14.381-65.000
Civil war	82						
1=war		17%		17%		17%	
0=no war		83%		83%		83%	
Interstate war	82						
1=war		15%		15%		15%	
0=no war		85%		85%		85%	
Homicide	82	9.055 (12.041)	0.200-69.000	9.055 (12.041)	0.200-69.000	9.055 (11.969)	0.200-69.000
Regional terrorism	82	1455.990 (1670.146)	18-6,213	1455.990 (1670.146)	18-6,213	1455.990 (1660.178)	18-6213
Death penalty	82						
1=use		30%		30%		30%	
0=abolished		70%		70%		70%	
Not Corrupt	81	4.706 (2.401)	1.2-10.0	4.706 (2.386)	1.2-10.0	4.686 (2.382)	1.2-10.0
Population density	82	120.512 (153.920)	2.7-1,120.1	120.512 (153.920)	2.7-1,120.1	120.512 (153.001)	2.7-1120.1

Table 31. Tobit Model 3 with proportion of terrorist attacks on police as dependent variable across three samples

	Prediction	Complete case analysis (*n*=73)	Mean substitution (*n*=82)	Multiple imputation (*n*=82)
Confidence in Police	-	0.0023 (0.0016)	0.0019 (0.0016)	0.0019 (0.0015)
Societal schism	+	0.0239* (0.0116)	0.0252* (0.0112)	0.0248* (0.0112)
Foreign military presence	+	0.0981* (0.0571)	0.1299** (0.0516)	0.1287** (0.0519)
Police per capita	+	0.0001 (0.0001)	0.0001 (0.0001)	0.0001 (0.0001)
Autocracy	+	-0.0656 (0.1003)	-0.0935 (0.0963)	-0.0911 (0.0969)
Anocracy	+	-0.0145 (0.0740)	-0.0380 (0.0629)	-0.0380 (0.0644)
Gini Index	+	0.0071* (0.0037)	0.0063* (0.0035)	0.0063* (0.0034)
Civil war	+	0.0750 (0.0679)	0.0427 (0.0593)	0.0426 (0.0594)
Interstate war	+	0.0202 (0.0685)	0.0293 (0.0663)	0.0308 (0.0664)
Homicide	+	-0.0039 (0.0026)	-0.0036 (0.0025)	-0.0035 (0.0025)
Regional terrorism	+	-0.0000 (0.0000)	0.0000 (0.0000)	0.0000 (0.0000)
Death penalty	+	0.0036 (0.0605)	0.0354 (0.0550)	0.0358 (0.0550)
Not Corrupt	-	-0.0156 (0.0164)	-0.0096 (0.0159)	-0.0101 (0.0157)
Population density	+	0.0001 (0.0002)	0.0000 (0.0001)	0.0000 (0.0001)
Constant		-0.4071* (0.1903)	-0.4073* (0.1791)	-0.4104* (0.1803)
Sigma		0.1555	0.1539	0.1537

Note: Unstandardized coefficients are presented, with standard errors in parentheses below.

* $p<0.05$; ** $p<0.01$; all tests are one-tailed.

Table 32. Tobit Model 7 with proportion of terrorist attacks on police as dependent variable across three samples

	Prediction	Complete case analysis (*n*=72)	Mean substitution (*n*=82)	Multiple imputation (*n*=82)
Mean State Confidence	-	0.0009 (0.0020)	0.0005 (0.0018)	0.0006 (0.0018)
Refugees	+	-0.0008 (0.0005)	-0.0005 (0.0004)	-0.0005 (0.0004)
Against tax fraud	-	-0.0004 (0.0017)	-0.0006 (0.0016)	-0.0007 (0.0016)
Never protest	-	-0.0043** (0.0018)	-0.0029* (0.0015)	-0.0033* (0.0016)
Societal schism	+	0.0229* (0.0122)	0.0251* (0.0114)	0.0250* (0.0114)
Foreign military presence	+	0.1078* (0.0605)	0.1316** (0.0547)	0.1325** (0.0551)
Police per capita	+	0.0001 (0.0002)	0.0001 (0.0001)	0.0001 (0.0001)
Autocracy	+	0.1199 (0.1328)	0.0253 (0.1071)	0.0486 (0.1107)
Anocracy	+	0.0342 (0.0780)	-0.0068 (0.0649)	-0.0058 (0.0663)
Gini Index	+	0.0108** (0.0040)	0.0085* (0.0036)	0.0089** (0.0037)
Civil war	+	0.1356* (0.0735)	0.0872† (0.0633)	0.0888† (0.0634)
Interstate war	+	-0.0087 (0.0728)	0.0098 (0.0700)	0.0103 (0.0700)
Homicide	+	-0.0045 (0.0028)	-0.0038 (0.0025)	-0.0039 (0.0025)
Regional terrorism	+	-0.0000 (0.0000)	0.0000 (0.0000)	0.0000 (0.0000)
Death penalty	+	0.0044 (0.0636)	0.0290 (0.0560)	0.0313 (0.0560)
Not Corrupt	-	-0.0067 (0.0152)	0.0000 (0.0142)	-0.0007 (0.0143)
Population density	+	0.0002 (0.0002)	0.0001 (0.0002)	(0.0001) (0.0002)
Constant		-0.2940 (0.2199)	-0.2808 (0.2105)	-0.2846† (0.2114)
Sigma		0.1520	0.1513	0.1506

Notes: Unstandardized coefficients are presented, with standard errors in parentheses below. † *p*<0.10; * *p*<0.05; ** *p*<0.01; all tests are one-tailed.

Table 33. Tobit Model 11 with proportion of fatal terrorist attacks on police as dependent variable across three samples

	Prediction	Complete case analysis (*n*=73)	Mean substitution (*n*=82)	Multiple imputation (*n*=82)
Confidence in Police	-	0.0024 (0.0021)	0.0020 (0.0021)	0.0018 (0.0020)
Societal schism	+	0.0728** (0.0192)	0.0755** (0.0194)	0.0768** (0.0196)
Foreign military presence	+	0.0757 (0.0715)	0.1048† (0.0655)	0.1023† (0.0664)
Police per capita	+	0.0001 (0.0002)	0.0001) (0.0002)	0.0000 (0.0002)
Autocracy	+	-0.1917 (0.1294)	-0.2064 (0.1261)	-0.2042 (0.1278)
Anocracy	+	-0.0614 (0.0964)	-0.0909 (0.0835)	-0.0954 (0.0855)
Gini Index	+	0.0172** (0.0057)	0.0164** (0.0054)	0.0161** (0.0054)
Civil war	+	0.1221† (0.0870)	0.0698 (0.0756)	0.0741 (0.0765)
Interstate war	+	0.1088 (0.0981)	0.1379† (0.0973)	0.1303† (0.0979)
Homicide	+	-0.0118 (0.0038)	-0.0109 (0.0036)	-0.0108 (0.0036)
Regional terrorism	+	-0.0000 (0.0000)	0.0000 (0.0000)	0.0000 (0.0000)
Death penalty	+	-0.1092 (0.0843)	-0.0737 (0.0793)	-0.0717 (0.0800)
Not Corrupt	-	-0.0696** (0.0253)	-0.0674** (0.0253)	-0.0640** (0.0253)
Population density	+	-0.0001 (0.0002)	-0.0001 (0.0002)	-0.0001 (0.0002)
Constant		-0.6782* (0.2815)	-0.6913* (0.2716)	-0.6779** (0.2764)
Sigma		0.1781	0.1779	0.1793**

Note: Unstandardized coefficients are presented, with standard errors in parentheses below.
† *p*<0.10; * *p*<0.05; ** *p*<0.01; all tests are one-tailed.

Table 34. Tobit Model 15 with proportion of fatal terrorist attacks on police as dependent variable across three samples

	Prediction	Complete case analysis (*n*=72)	Mean substitution (*n*=82)	Multiple imputation (*n*=82)
Mean State Confidence	-	0.0034 (0.0028)	0.0007 (0.0023)	0.0007 (0.0024)
Refugees	+	-0.0008 (0.0005)	-0.0003 (0.0005)	-0.0003 (0.0005)
Against tax fraud	-	0.0013 (0.0024)	0.0001 (0.0022)	-0.0004 (0.0023)
Never protest	-	-0.0090** (0.0026)	-0.0064** (0.0020)	-0.0068** (0.0022)
Societal schism	+	0.0717** (0.0188)	0.0693** (0.0178)	0.0724** (0.0183)
Foreign military presence	+	0.0947 (0.0754)	0.1228* (0.0711)	0.1172† (0.0717)
Police per capita	+	0.0002 (0.0002)	0.0001 (0.0002)	0.0001 (0.0002)
Autocracy	+	0.1512 (0.1810)	-0.0691 (0.1391)	-0.0071 (0.1487)
Anocracy	+	0.0357 (0.1000)	-0.0619 (0.0822)	-0.0613 (0.0838)
Gini Index	+	0.0257** (0.0065)	0.0202** (0.0054)	0.0203** (0.0054)
Civil war	+	0.2480* (0.0936)	0.1345* (0.0769)	0.1411* (0.0778)
Interstate war	+	0.0520 (0.0926)	0.1106 (0.0937)	0.0983 (0.0943)
Homicide	+	-0.0139 (0.0040)	-0.0107 (0.0034)	-0.0107 (0.0034)
Regional terrorism	+	-0.0000 (0.0000)	0.0000 (0.0000)	0.0000 (0.0000)
Death penalty	+	-0.1240 (0.0835)	-0.0695 (0.0751)	-0.0642 (0.0759)
Not Corrupt	-	-0.0626** (0.0215)	-0.0566** (0.0216)	-0.0549** (0.0219)
Population density	+	0.0001 (0.0002)	0.0000 (0.0002)	0.0001 (0.0002)
Constant		-0.7821* (0.3794)	-0.5533† (0.3279)	-0.5221† (0.3334)
Sigma		0.1571	0.1612	-0.1608**

Notes: Unstandardized coefficients are presented, with standard errors in parentheses below. † *p*<0.10; * *p*<0.05; ** *p*<0.01; all tests are one-tailed.

Table 35. Rankings of the rate of terrorist attacks on police per one million officers
and the rate of terrorist attacks targeting police per 100,000 population

Rank	Country name	Per officers	Rank	Country name	Per pop.
1	Macedonia	0.0348	1	Macedonia	1.6866
2	Colombia	0.0175	2	Georgia	0.3895
3	Algeria	0.0018	3	Algeria	0.2738
4	Georgia	0.0086	4	Colombia	0.2308
5	Philippines	0.0056	5	Thailand	0.1181
6	Pakistan	0.0054	6	Russia	0.1453
7	Thailand	0.0052	7	Spain	0.1047
8	Spain	0.0036	8	Pakistan	0.0954
9	United Kingdom	0.0029	9	Philippines	0.0833
10	Indonesia	0.0024	10	Greece	0.0827
11	India	0.0024	11	United Kingdom	0.0726
12	Turkey	0.0020	12	Turkey	0.0589
13	Russia	0.0019	13	Bosnia-Herzegovina	0.0534
14	Bosnia-Herzegovina	0.0019	14	India	0.0325
15	Ethiopia	0.0019	15	Albania	0.0325
16	Greece	0.0017	16	Peru	0.0277
17	Uganda	0.0015	17	Sweden	0.0220
18	Sweden	0.0012	18	Kyrgyzstan	0.0198
19	Bangladesh	0.0010	19	Indonesia	0.0197
20	Albania	0.0009	20	Belgium	0.0196
21	Zimbabwe	0.0009	21	Italy	0.0171
22	Italy	0.0009	22	Zimbabwe	0.0160
23	Peru	0.0009	23	Nigeria	0.0152
24	Belgium	0.0005	24	Serbia	0.0135
25	Morocco	0.0005	25	Uganda	0.0119
26	Kyrgyzstan	0.0004	26	Mexico	0.0107
27	Mexico	0.0003	27	Iran	0.0099
28	Australia	0.0003	28	Australia	0.0098
29	Serbia	0.0003	29	South Africa	0.0084
30	South Africa	0.0003	30	France	0.0081
30	Germany	0.0003	31	Bangladesh	0.0075
32	Chile	0.0002	32	Morocco	0.0065
33	France	0.0002	33	Chile	0.0061
34	Malaysia	0.0001	34	Malaysia	0.0038
35	South Korea	0.0001	35	Ethiopia	0.0025
36	China	0.0001	35	South Korea	0.0021
37	Brazil	0.0001	37	Brazil	0.0016
38	Egypt	0.00003	38	Egypt	0.0014
39	United States	0.0000	39	Germany	0.0012

Rank	Country name	Per officers	Rank	Country name	Per pop.
40	Argentina	0	40	China	0.0005
41	Austria	0	41	United States	0.0003
42	Belarus	0	42	Argentina	0
43	Canada	0	43	Austria	0
44	Croatia	0	44	Belarus	0
45	Cyprus	0	45	Bulgaria	0
46	Czech Republic	0	46	Burkina Faso	0
47	Denmark	0	47	Canada	0
48	Estonia	0	48	Croatia	0
49	Finland	0	49	Cyprus	0
50	Guatemala	0	50	Czech Republic	0
51	Hungary	0	51	Denmark	0
52	Iceland	0	52	Estonia	0
53	Ireland	0	53	Finland	0
54	Japan	0	54	Ghana	0
55	Jordan	0	55	Guatemala	0
56	Latvia	0	56	Hungary	0
57	Lithuania	0	57	Iceland	0
58	Luxembourg	0	58	Ireland	0
59	Mali	0	59	Japan	0
60	Moldova	0	60	Jordan	0
61	Netherlands	0	61	Latvia	0
62	New Zealand	0	62	Lithuania	0
63	Norway	0	63	Luxembourg	0
64	Poland	0	64	Mali	0
65	Portugal	0	65	Moldova	0
66	Romania	0	66	Netherlands	0
67	Slovak Republic	0	67	New Zealand	0
68	Slovenia	0	68	Norway	0
69	Switzerland	0	69	Poland	0
70	Ukraine	0	70	Portugal	0
71	Uruguay	0	71	Romania	0
72	Venezuela	0	72	Rwanda	0
73	Vietnam	0	73	Slovak Republic	0
74	Zambia	0	74	Slovenia	0
75	Bulgaria	[Missing]	75	Switzerland	0
76	Burkina Faso	[Missing]	76	Tanzania	0
77	Ghana	[Missing]	77	Trinidad and Tobago	0
78	Iran	[Missing]	78	Ukraine	0
79	Nigeria	[Missing]	79	Uruguay	0
80	Rwanda	[Missing]	80	Venezuela	0
81	Tanzania	[Missing]	81	Vietnam	0

Rank	Country name	Per officers	Rank	Country name	Per pop.
82	Trinidad and Tobago	[Missing]	82	Zambia	0

Table 36. Tobit regression models with rate of terrorist attacks on police per one million officers, 1999-2008 as dependent variable (*n*=82)

	Prediction	Model 1	Model 2	Model 3	Model 4
Confidence in Police	-	-0.00002 (0.00004)	0.0008 (0.00005)	0.0001 (0.0001)	0.0001 (0.0000)
Societal schism	+			0.0006† (0.0004)	0.0007* (0.0004)
Foreign military presence	+			0.0048** (0.0020)	0.0044* (0.0019)
Non-police targeted terrorism	+		0.0000* (0.0000)	0.0000 (0.0000)	0.0000 (0.0000)
Autocracy	+		-0.0018 (0.0036)	-0.0036 (0.0036)	
Anocracy	+		-0.0004 (0.0023)	-0.0008 (0.0023)	
Gini Index	+		0.0003* (0.0001)	0.0002† (0.0001)	0.0002† (0.0001)
Civil war	+		0.0027 (0.0024)	0.0041* (0.0024)	0.0041* (0.0023)
Interstate war	+		0.0013 (0.0024)	-0.0003 (0.0024)	
Homicide	+		-0.0001 (0.0001)	-0.0001 (0.0001)	-0.0001 (0.0001)
Regional terrorism	+		-0.0000 (0.0000)	-0.0000 (0.0000)	
Death penalty	+		-0.0029 (0.0020)	-0.0019 (0.0021)	-0.0026 (0.0019)
Not Corrupt	-		-0.0013* (0.0006)	-0.0008† (0.0006)	-0.0005 (0.0005)
Population density	+		0.0000 (0.0000)	0.0000 (0.0000)	
Constant		0.0002 (0.0026)	-0.0073† (0.0054)	-0.0128* (0.0059)	-0.0120* (0.0055)
Sigma		0.0068 (0.0008)	0.0057 (0.0006)	0.0054 (0.0006)	0.0056 (0.0006)

Note: Unstandardized coefficients are presented, with standard errors in parentheses below.
† *p*<0.10; * *p*<0.05; ** *p*<0.01; all tests are one-tailed.

Table 37. Tobit regression models with rate of terrorist attacks on police per 100,000 population, 1999-2008 as dependent variable (*n*=82)

	Prediction	Model 1	Model 2	Model 3	Model 4
Confidence in Police	-	-0.0012 (0.0019)	0.0031 (0.0025)	0.0056 (0.0026)	0.0042 (0.0023)
Societal schism	+			0.0386* (0.0189)	0.0437** (0.0176)
Foreign military presence	+			0.2800** (0.0955)	0.2570** (0.0846)
Police per capita	+			0.0003 (0.0002)	0.0002 (0.0002)
Non-police targeted terrorism	+		0.0002† (0.0002)	-0.00003 (0.0002)	
Autocracy	+		-0.0925 (0.1574)	-0.1925 (0.1537)	
Anocracy	+		-0.0439 (0.1023)	-0.0618 (0.1004)	
Gini Index	+		0.0125* (0.0059)	0.0101* (0.0058)	0.0084† (0.0056)
Civil war	+		-0.0135 (0.1156)	0.0808 (0.1115)	
Interstate war	+		0.1151 (0.1127)	0.0407 (0.1114)	
Homicide	+		-0.0077 (0.0043)	-0.0061 (0.0041)	-0.0040 (0.0038)
Regional terrorism	+		-0.00002 (0.00003)	-0.0000 (0.0000)	
Death penalty	+		-0.0812 (0.0886)	-0.0138 (0.0932)	-0.0471 (0.0865)
Not Corrupt	-		-0.0622** (0.0260)	-0.0352† (0.0258)	-0.0211 (0.0203)
Constant		-0.0197 (0.1141)	-0.3428† (0.2385)	-0.8215** (0.2895)	-0.7766** (0.2778)
Sigma		0.2941 (0.0338)	0.2701 (0.0308)	0.2474 (0.0279)	0.2537 (0.0286)

Note: Unstandardized coefficients are presented, with standard errors in parentheses below.

† *p*<0.10; * *p*<0.05; ** *p*<0.01; all tests are one-tailed.

Figure 1. Possible ways to operationalize state legitimacy

Views of Legality (government meets obligations)	Views of Justification (government respects values of citizen groups)	Acts of consent (conscious citizen actions consenting to government)
•Confidence in government •Confidence in civil servants •Confidence in the justice system •Absence of corruption	•Little emigration of particular groups •Few political prisoners •No genocide •Little political discrimination of minority groups	•Voting •Volunteering for military •Payment of voluntary taxes •Deferring to police •Refraining from protests

Figure 2. Causes and consequences of police legitimacy
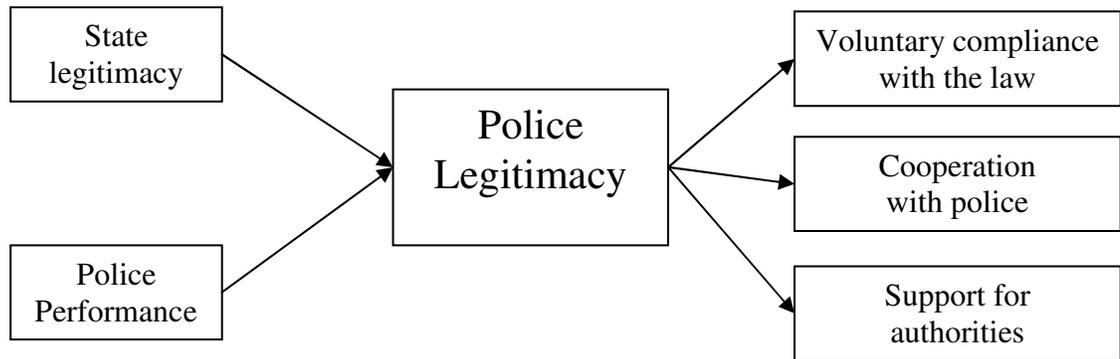
Figure 3. Distribution of the number of terrorist attacks against the police per country, 1999-2008 (*n*=159 countries)
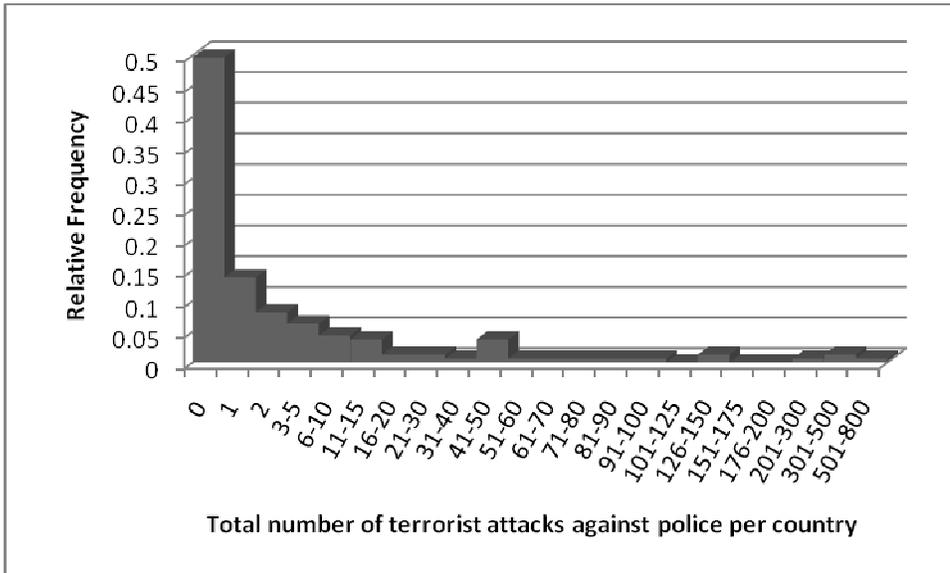
Figure 4. Distribution of the proportion of terrorist attacks against the police per country, 1999-2008 (*n*=159 countries)
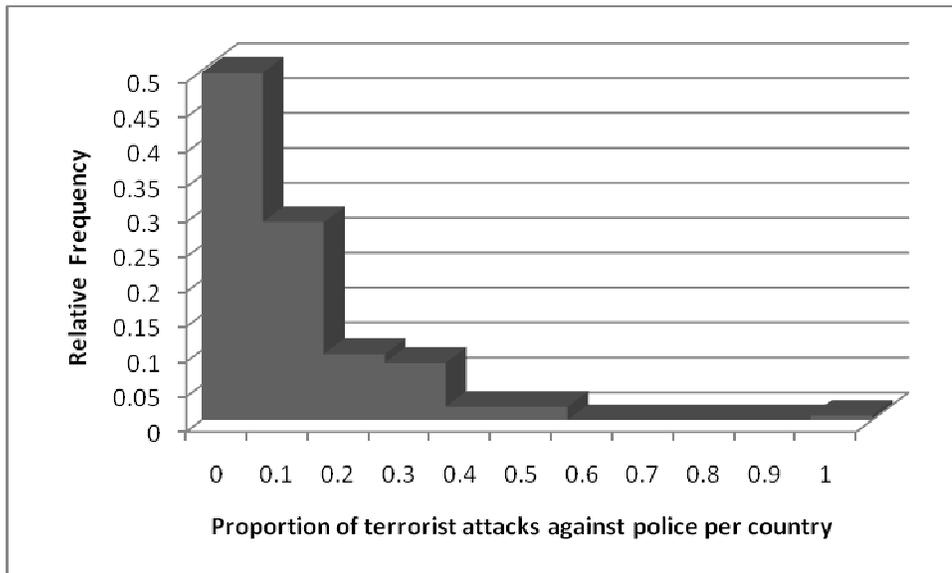
Figure 5. Geographic distribution of proportion of all terrorist attacks targeting police, 1999-2008
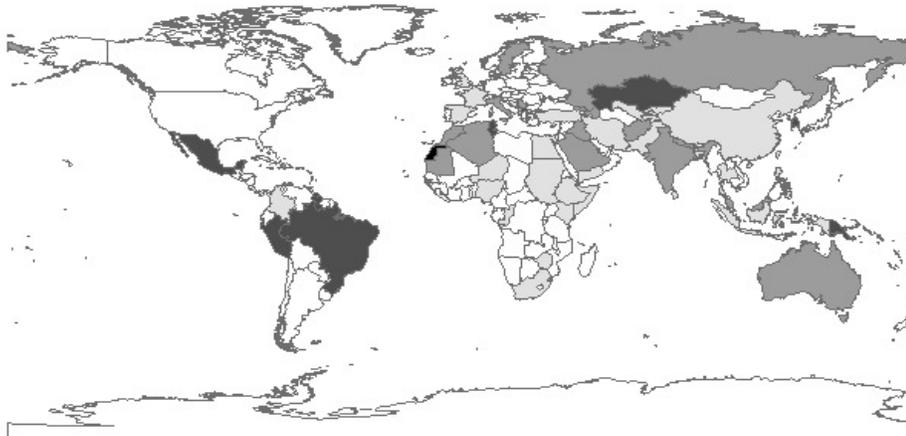
Legend

country

Proportion_Police

	0.000000 - 0.045685
	0.045686 - 0.153846
	0.153847 - 0.261538
	0.261539 - 0.500000
	0.500001 - 1.000000
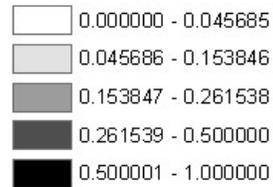
Figure 6. Comparing the proportion of terrorist attacks against police in countries with high societal schism

High proportion (>0.15)	Moderate proportion (0.06-0.14)	Low proportion (<0.05)
•Afghanistan •Algeria •Georgia •India •Macedonia •Northern Ireland	•Indonesia •Kosovo •Nigeria •Sri Lanka	•Armenia •Burundi •Democratic Republic of the Congo •Eritrea •Ethiopia •Great Britain •Israel •Kyrgyzstan •Lebanon •Moldova •Serbia •Tajikistan •United States •Uzbekistan

Figure 7. Comparison of the number of countries per region included and not
included in the sample
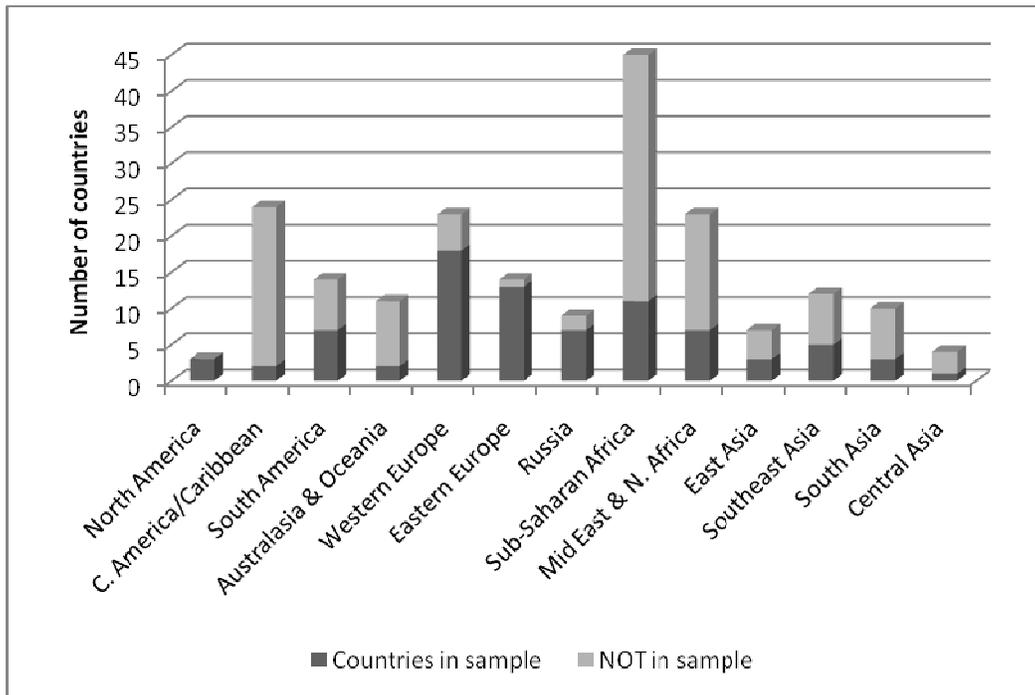
Figure 8. Terrorist attacks on police distributed by region
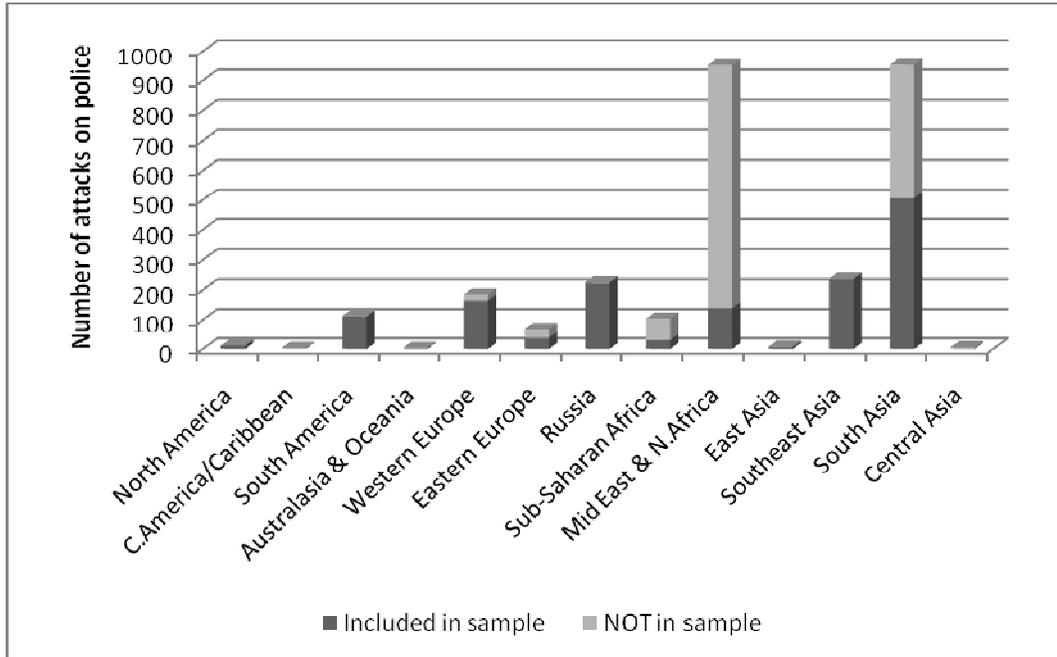
Figure 9. Distribution of terrorist attacks against any target, 1999-2008, for countries included in sample
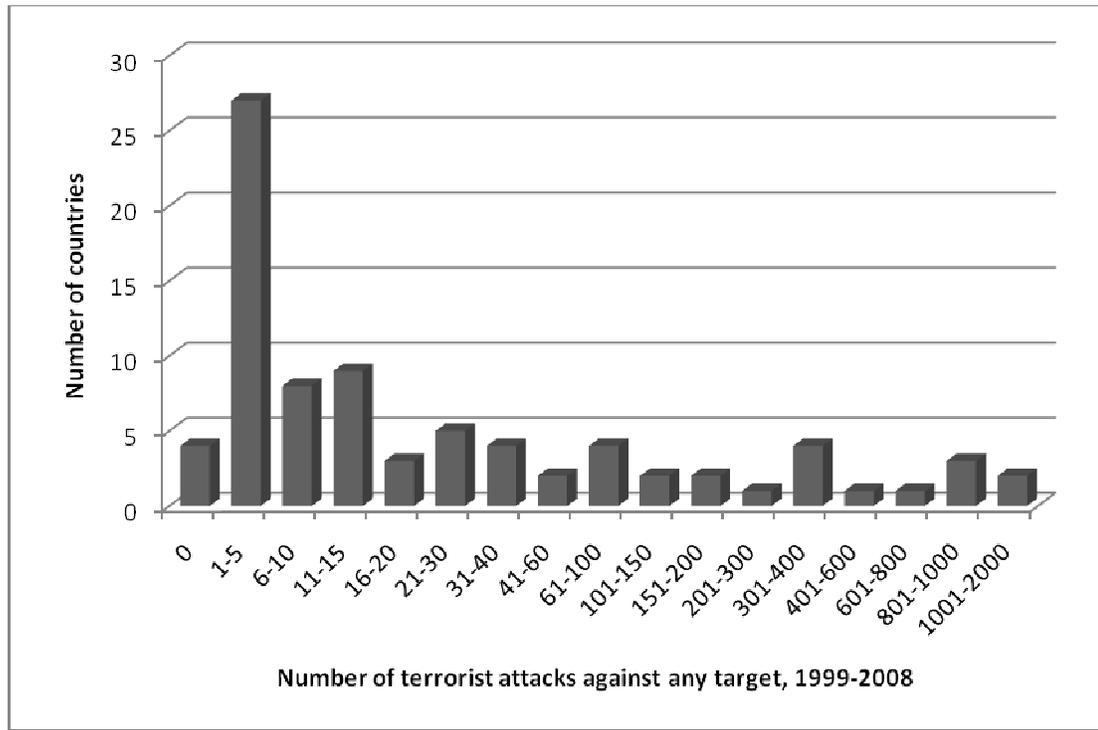
Figure 10. Distribution of fatal terrorist attacks against any target, 1999-2008, for countries included in sample
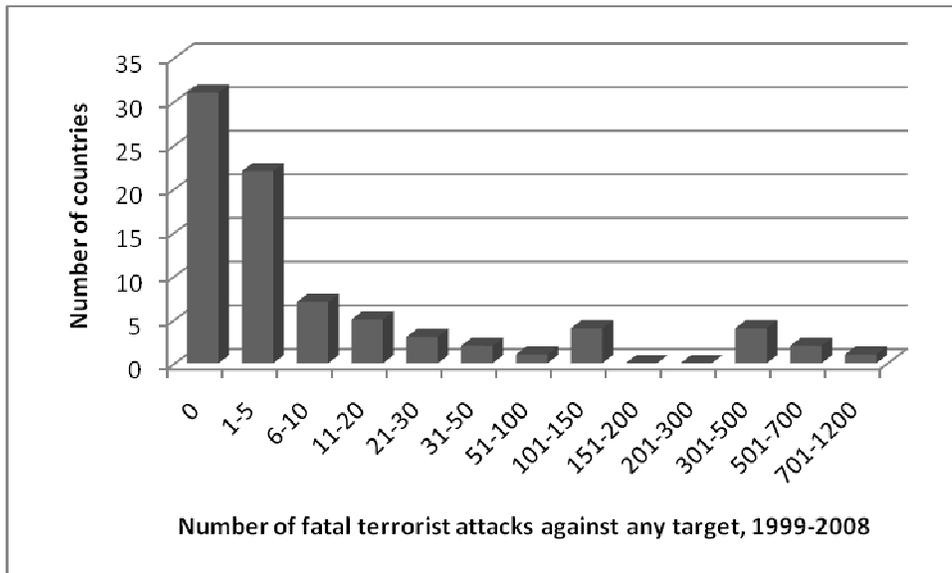
Figure 11. Distribution of the proportion of terrorist attacks against police
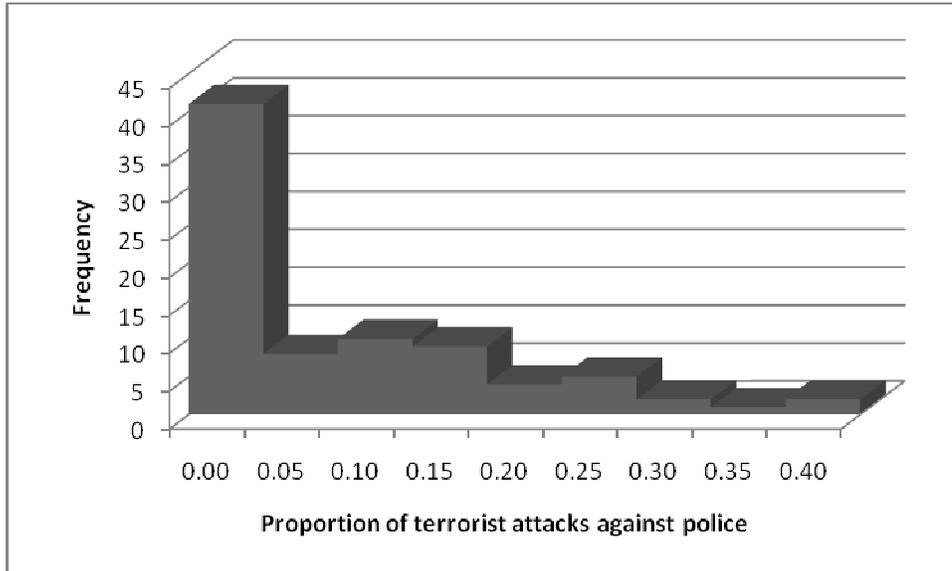
Figure 12. Distribution of proportion of fatal attacks targeting police
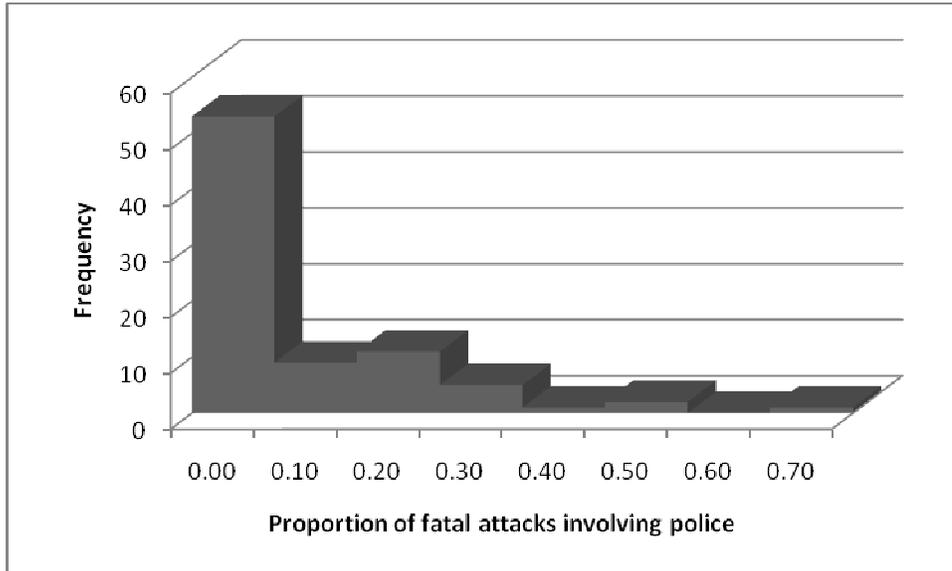
Figure 13. Scree plot
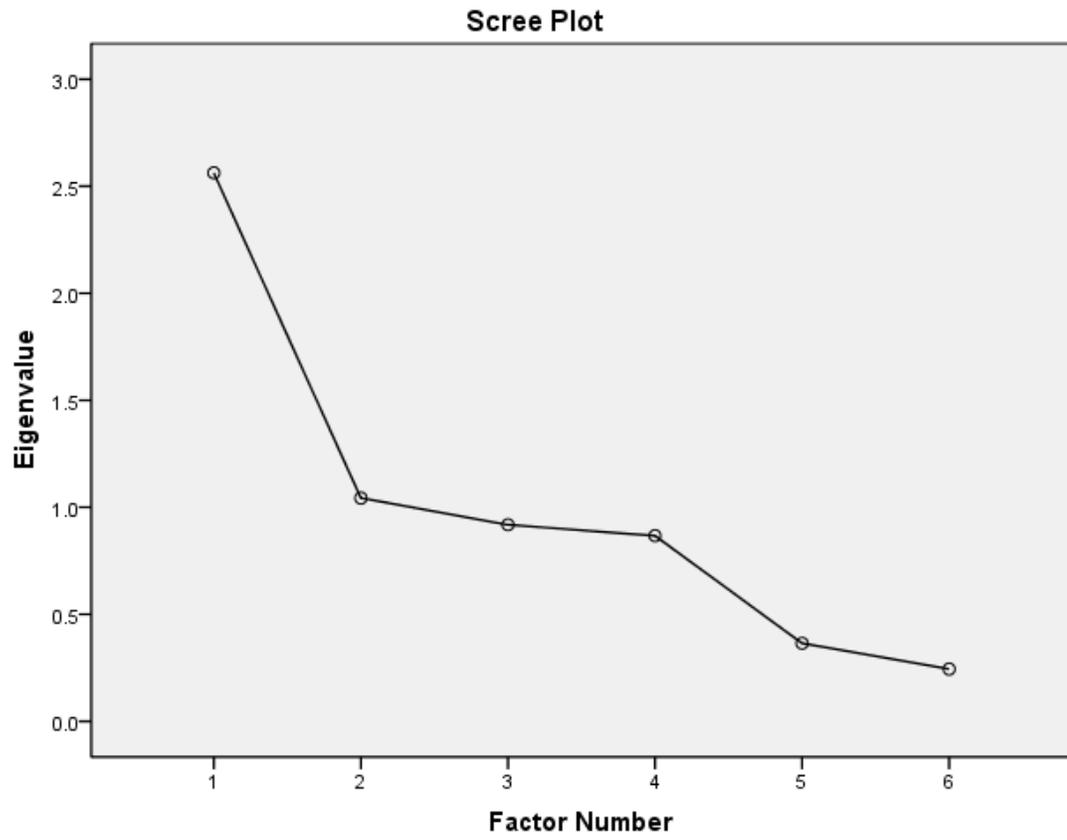
Figure 14. A model of state legitimacy
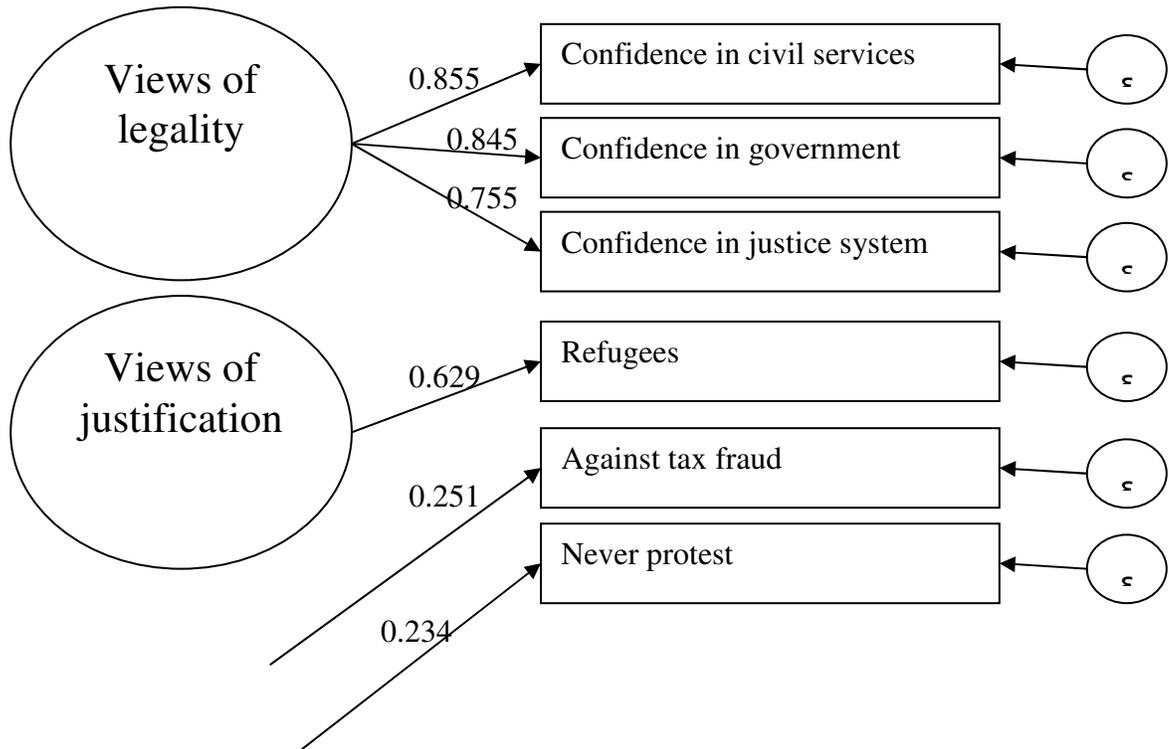
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