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Ecology of Terrorism: Cross-National Comparison of Terrorist Attacks

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By

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ABSTRACT

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By

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The term terrorism is used to describe a large range of behaviors conducted by a wide variety of groups. Terrorist groups differ in ideology, size, financial support, group longevity, and the number of alliances with other terrorist groups. Relatedly, terrorist groups conduct different number of attacks with varying intents to cause fatalities using diverse forms of violence. This study uses ecological theory to contextualize terrorist violence as a product of terrorist group traits in relation to the environmental context. It is hypothesized that terrorist violence is associated with group traits in relation to the varying political, social, and religious contexts of the countries in which groups operate. Using longitudinal multilevel modeling this study analyzes how terrorist group traits, country characteristics, and exposure to counterterrorism tactics, influence terrorist violence (e.g. number of attacks, fatalities, targets, mode of attack, location of attack) over time. This study uses counterterrorism and group-level data from the Big Allied and Dangerous (BAAD1, 2) datasets, attack data from the Global Terrorism Database (GTD), country data from multiple public datasets, and counterterrorism and terrorist group data originally collected from open-sources. The results show that each form of violence has a unique set of predictor variables and the results of moderation hypotheses show that group ideologies are associated with different trajectories over time, that group traits condition the effect of counterterrorism, and country characteristics moderation how different terrorist groups conduct violence. This work is among the first to evaluate moderation hypotheses and is one of few studies on terrorism to use advanced statistical methods to evaluate these relationship over time

and cross-nationally. The study contributes to the literature on terrorism with relevant policy implications, and contributing to the development of ecological theory and its application to political and religiously motivated violence.

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF GRAPHS AND FIGURES

CHAPTER 1

INTRODUCTION

Overview

Terrorism researchers have long been interested in factors that influence violent group behavior; however, the empirical comparison of terrorist groups in relation to their unique social and political context, including counterterrorism measures, has largely gone unstudied. Particularly since the attacks on September 11th, 2001 countries have spent a great deal of money and effort on counterterrorism policies with the intent of preventing or reducing terrorist attacks (Lum, Kennedy, & Sherley, 2006). Though it is slowly improving, there is a lack of empirical research to inform policy-makers how counterterrorism methods affect terrorist violence (Lum et al., 2006; see also the upcoming criminological theory and terrorism special issue in *Terrorism and Political Violence*, fall 2014). A counterterrorism policy may not produce the same effect on different terrorist groups and/or in different locations. Proper analysis of counterterrorism policy in relation to differing terrorist groups and country contexts is an important contribution to our current understanding of terrorist violence.

Statement of the current study

Using ecological theory, this research project is a cross-national study that focuses on how the political, social, and economic characteristics of a country in addition to terrorist group traits influence terrorist attacks. Counterterrorism policies implemented by national jurisdictions are a specific aspect of the political context in a country and are likely to influence the type of violence conducted by terrorist groups. In addition to counterterrorism policy, the political regime, religious and ethnic heterogeneity, and levels of poverty characterize the political and social context in a country. Similarly, group characteristics, such as group ideology, size,

financial resources, alliances, and minority and/or ex-patriot status may contribute to the type of terrorist attacks groups conduct. This study evaluates how these micro and macro-level factors influence characteristics of terrorist attacks: the number of attacks, the number of fatalities, target selection, mode of attack, and the location of attack (domestic or transnational). The current study uses an innovative methodology that enables these macro-level factors to be modeled in conjunction with characteristics of each specific terrorist group.

The results of this study contribute to the terrorism literature in multiple ways. First, this study uses advanced methodology to empirically analyze the ecologically theorized interaction of country-level characteristics, terrorist group-traits, and longitudinal counterterrorism policies on group behavior. Second, the results expand upon the literature evaluating attacks that are typically limited to only a few groups and regions. Third, ecological theory informs the current study, and the results of this project contribute to the theoretical literature by showing how the theorized relationships mediate terrorist violence. This study contributes to ecological theory-building, where there is a significant deficiency in terrorism research. Lastly, this research proposes empirically-based policy implications regarding how country characteristics condition the effect of counterterrorism policy in relation to different types of groups.

The ecological theoretical framework is first discussed to show how the theory informs the study, followed by a discussion of the relevant literature on terrorism and counterterrorism to highlight how this study fills important gap in the current literature. Next, the specific aims and hypotheses of the study are described, followed by the research design and data analysis. The results are then reported followed by a discussion of data limitations and policy implications.

CHAPTER 2

Theoretical Framework

Overview

Most terrorism and counterterrorism research is policy-driven (Crenshaw, 2010a), and often does not directly draw on theory (Gunning, 2007, p. 367). Criminological theory is valuable to research by organizing facts known about a topic, such as terrorism, and providing a framework of relationships that can be tested to improve our understanding of the topic (Akers & Sellers, 2003). Theory is meant to explain individual and societal behavior. Different theories attribute cause to different factors. Many theories attribute behaviors solely to the individual (e.g. classical criminological theory) without accounting for environmental influences. Similarly, other theories argue that individual behavior is entirely explained by environmental factors (e.g. Marxist theory). These theories focus solely on the micro or macro causes of behavior. Ecological theory provides the appropriate framework for modeling both the micro and macro factors that influence behavior. Specifically, ecological theory can be used to explain how terrorist groups are influenced by environmental factors, without approaching violent behavior solely as a product of circumstance. This theoretical framework explains how and why terrorist groups and country characteristics influence how terrorist attacks are conducted, and provides justification for hypothesized relationships that are then empirically tested. Ecological theory is a comprehensive theory for situating a terrorist group's attack behavior as a product of the group in relation to the country's context.

Ecological Theory

The foundations of ecological theory are discussed to develop how this theory applies to terrorism research. Ecological theory has been used to explain the development of individuals

within the context of relationships in an environment. Specifically this theory argues that individuals' behavior is influenced by direct interactions with family, peers, and the community, as well as indirect factors, such as community characteristics and structural resources (Bronfenbrenner, 1979, 1989; Pearson & Weiner, 1985; Vila, 1994). A person's development is understood to be an outcome of the interaction between one's personal biology, family and friends, community environment, and the larger societal context (Bronfenbrenner, 1979, 1989). The individual, the micro-level, is situated within various meso-levels or groups, within the larger environment, the macro-level. Ecological theory rests on the premise that there are symbiotic relationships between people and their geographic area. Robert Park, an early theorist who applied plant ecology to human ecology, describes this relationship as a "super-organism" with "organic unity" (Park, 1952, p. 118). The dynamic relationship between parts of the ecological system highlights the flaw of analyzing individuals or groups independent of the larger context.

Ecological theory has been used to explain crime and criminal behavior (Cohen & Machalek, 1988; Stark, 1987; Vila, 1994). It is important to note that in crime-prone areas the percentage of people involved in criminal behavior is small (Shaw & MacKay, 1969), which suggests that criminal behavior is not solely a product of the environment but is also related to individual characteristics, and therefore a comprehensive analysis needs to include information for both levels. Terrorism typically has an extremely low base rate, and theoretical explanations have failed to explain what causes terrorism given that so few people exposed to the same elements engage in terrorist violence (Turk, 2004). Ecological theory explains that one's activity is a product of the unique individual in relation to a specific environmental context. Applying this logic to a larger scope, terrorist attacks are the product of terrorist groups in relation to the

state. Much like individual behavior is influenced by family, peers, and community, terrorist group behavior is likely influenced by ideological groups, alliances to other terrorist groups, and the environments in which terrorist groups operate.

Ecological theory explains individual behavior as a process of development in relation to the environment over time. Human ecology explains how societies change through a process of "invasion, dominance, and succession" (Park, 1936; Vold, Bernard, & Snipes, 2002, p. 119). These societal shifts disrupt the status quo, which can be associated with political change and conflict in a society. Terrorism is often a result of political conflict between extreme factions and the state, often described as a cycle of violence. This relationship indicates the limitations of an analysis solely focused on the terrorist group and not the contextual environment. It is argued that terrorist groups' development and attack behaviors are a function of the changing political and social context in which they operate.

Crenshaw (1981) developed a theoretical framework to explain terrorism on three levels: the individual, the group, and the larger environment. Similarly, applying ecological theory to terrorism situates individuals within terrorist groups within countries (see figure 1). Bronfenbrenner (1989) describes the relations between each context as "bidirectional effects and person-context interactions" such that a synergistic relationship is formed that influences development and behavior (cited in Leventhal & Brooks-Gunn, 2000, p. 310). Ecological theory suggests that the individual influences the terrorist group and vice versa, and likewise the group influences the state of affairs in the country and policies implemented, and vice versa. Due to the limited data on individuals in terrorist groups, the current study focuses on terrorist groups in countries to make the analysis manageable. The inability to include the individuals composing the terrorist groups is a limitation to this study, however, it is critical to highlight that the results

of this study are not intending to explain the violent behavior of individuals within terrorist groups. Rather, this study focuses on how group traits and country characteristics influence the violent behavior of the terrorist group.

Ecological theory provides the framework for the development of the Minorities at Risk Organizational Behavior (MAROB) database, which codes both violent and non-violent ethnic minority groups situated in countries in the Middle East and north Africa (Asal, Pate, & Wilkenfeld, 2008), and the Political Organizations Database (POD), which includes left-wing, right-wing and religiously inspired groups. These datasets seek to compare violent and non-violent groups, and include information about state actions toward the groups; however, these datasets do not include additional information about countries to account for macro-level contextual effects. Using the same ecological framework, the current study evaluates terrorist groups from around the world and includes state actions directed toward the groups, as well as political, economic, and human rights information about each country that contribute to the macro-level context, which is emphasized by ecological theory.

The results of the current study have the potential to make a significant contribution to ecological theory and its application to terrorism research by providing information about how country characteristics moderate group traits on violent behavior, and how group traits moderate the influence of counterterrorism policies. Specifically, the results expand ecological theory and advance the research community's understanding of how counterterrorism policies, as well as the social, political, and economic context of a country, influence terrorist group attacks.

CHAPTER 3

Literature Review

Terrorism Research

The ecological framework previously described informs this study and the selection of variables that are assessed, and therefore, the prior literature that is relevant to this study. Ecological theory suggests that terrorist attacks are a product of terrorist group characteristics and the country context. The current study analyzes five aspects of terrorist attacks conducted by terrorist groups: the number of attacks, the number of fatalities, targets selected, mode of attack, and the location of attack (domestic or transnational). Below I discuss of how terrorism is operationalized in this study, followed by a review of the relevant literature on terrorist groups, country context, and counterterrorism policy highlighting the gaps that this study intends to address.

Operationalizing Terrorism

Terrorism is a controversial term used to describe a wide array of behaviors and a wide spectrum of groups. Particularly in the decades preceding 9/11, terrorist groups differed in size, organization, and ideology (Crenshaw, 2010b, p. 8). The heterogeneity amongst terrorist groups contributes to the disputed definition of terrorism amid researchers and politicians, the difficulty of developing a comprehensive theory, as well as the varying results within research due to the use of different definitions and distinctions (see Chermak, Freilich, Parkin, & Lynch, 2012).

Terrorism is generally considered a political strategy for an asymmetrical conflict. Hoffman (2006) says terrorism is a political construct associated with a struggle for power, which differentiates terrorism from other forms of violence. Jenkins (1980) explains that labeling

a group or individual a terrorist, has a moral connotation and is subjectively applied. The U.S. State Department defines terrorism as "premeditated, politically motivated violence perpetrated against non-combatant targets by subnational groups or clandestine agents, usually intended to influence an audience" (Title 22 of the United States Code, Section 2656f(d) cited in Hoffman, 2006, p. 30-31). This definition emphasizes non-combatant targets (which include military personnel who are not actively on duty or unarmed) and the intent to spread terror in a community as aspects defining the act of terrorism. Although these are important criteria, the definition of terrorism for the purposes of this study comes from an existing dataset, the Global Terrorism Database (GTD). The GTD defines terrorism as "the threatened or actual use of illegal force and violence to attain a political, economic, religious or social goal through fear, coercion or intimidation" (Pinkerton Global Intelligence Service (PGIS) definition cited in LaFree & Dugan, 2007, p. 184). Although an explicit definition is in dispute, scholars have generally had similar tenets in defining terrorism and this definition has been used in the development of the Global Terrorism Database (GTD) and in many scholar writings.

Despite the lack of an agreed upon definition, there is a great deal of literature written on terrorism, particularly after the attacks on September 11th (Lum et al., 2006; Schmid & Jongman, 2005; Silke, 2001). The literature has covered many topics and has been conducted in a variety of ways. To address the literature relevant to this paper, research on terrorist groups is reviewed addressing specific group traits that are of interest to the current study.

Literature on Terrorist Groups

The heterogeneity among terrorist groups is associated with characteristics that distinguish types of terrorist groups. These characteristics include group ideology, group size, financial resources, group age or longevity, alliances to other groups (Asal & Rethemeyer,

2008b), and whether the group is made up of minorities or ex-patriots in the country of origin .[1] Ecological theory suggests that these characteristics of a terrorist group are likely to influence the violent behavior a group conducts.

There are a few studies that have analyzed how many of these group characteristics influence violent behavior. Although few studies evaluate each of these group characteristics in relation to attacks, ecological theory and the prior literature suggests that differences in these characteristics may be associated with different types of attacks. Before elaborating on the research of terrorist attacks these characteristics of groups are explained.

The ideology a group associates with is the motive behind their actions (Drake, 1998). Drake (1998) defines ideology as "the beliefs, values, principles, and objectives –however ill-defined or tenuous –by which a group defines its distinctive political identity and aims" (Drake, 1998, pp. 54–55). Neumann (2009) emphasizes that terrorist group ideologies are not entirely distinct from mainstream political or religious opinions, but rather reflect a radical segment of ideological opinion within a society combined with a belief in the use of violence. Groups' ideologies are often categorized into general themes, such as religious, left-revolutionary, far-right, nationalist-secessionist, or hybrid (Crenshaw, 2010a). There is variation within each of these categories. For example, religiously motivated groups affiliated with different denominations may have few other ideological similarities. Groups may also be driven by multiple ideological categories. For example, Hamas is motivated by both Islamic religious ideology and nationalist political ideology.

[1] Group structure has also been hypothesized to affect terrorist behavior; however, there is no variable regarding group structure available in the BAAD1 dataset where group traits for this project come from. Group structure is a complicated variable to get accurate information for because structures sometimes change over time in relation to counterterrorism events, or internal dynamics. The current study includes counterterrorism polices directed at groups that may influence group structure (i.e. leadership decapitation and mass arrest), but without data on structure available, this topic is not discussed in the literature review and the variable is not included in this analysis.

Group size refers to the number of people operating in a terrorist group. Some groups have very few members while others have a large number of operatives. The size of the group may be geographically dispersed or clustered in a specific location. Group size is argued to influence the financial and skill resources available to a terrorist group (Asal & Rethemeyer, 2008b). The financial resources available to a group suggest varying levels of support. Resources may come from members within the group or from outside sources, such as diaspora communities or state-sponsorship. For example, terrorists associated with rogue states have better access to smaller and deadlier weapons, which likely influences their attacks (Hoffman, 1999).

Terrorist groups vary in how long they operate. Group longevity differs dramatically; some groups lasting less than one year while others have functioned for decades. Hoffman (1999, p. 25) argued that natural selection applies to terrorist groups such that long-lived groups adapt to counterterrorism policies. Additionally, groups that operate for a long time must strategically select targets and modes of attack, and calculate the optimal number of attacks and level of fatalities to maintain financial and political support over time.

The minority status of a terrorist group is thought to influence how a group relates to other people in the country. Minority terrorist groups are those that represent an ethnic or religious minority within a country, as opposed to being members of the majority population in a country. A group that consists of ex-patriots is similar, but distinct. Ex-patriots are people who originate from another country. Ex-patriots may be a minority, but they may also be of the same ethnicity and/or race as the majority population in the country where they are located. Khosrokhavar (2005) and Sageman (2008) contrast terrorists in the developing world from those who live as minorities in diaspora communities in the western world. The experience of racism

and discrimination living in the western world as minorities and/or ex-patriots is argued to produce a different experience of marginalization than the experience of living among the majority in a developing world where the opportunity to benefit from the strides in modernity are out of one's grasp (see Khosrokhavar, 2010 for a discussion about the role of vicarious humiliation in jihadism). Although these studies do not elaborate on different types of attacks conducted by these different types of groups, these studies explain the psychological difference between groups that are of a minority or majority population in a location. The literature suggests groups may have different degrees of empathy or rage for other people, which may be associated with different methods or targets of attacks, or the choice to conduct transnational attacks.

Terrorist groups can be categorized by the factors just described to evaluate whether there are systematic differences between different types of groups. For example, religious groups may consistently differ from groups with an ethnonationalist ideology in terms of target selection or mode of attack. Of course, terrorist groups can differ in many other respects, such as levels of education or the mean age of group members; however, this information may be difficult to assess without information on all group members. The characteristics selected for this study derive from ecological theory as well as the prior literature. The following section describes research explaining how terrorist group traits may influence terrorist attacks.

The literature on terrorist attacks highlights how ideology may influence target selection, mode of attack, the number of fatalities, and where attacks take place. According to Drake (1998), a group's ideology distinguishes those who are guilty for the present state of affairs and provides the moral framework used to justify violence. Although he specifies that ideology is not the only factor influencing target selection, ideology delineates a range of who or what justifiably could be targeted. While Drake (1998) provides a valuable historical analysis as well

as frequencies comparing different targets for a selection of groups, this study does not methodologically select terrorist groups for comparison and does not provide any statistical evaluation of the relationship between various ideologies and targets from which one could make generalizations.

Some studies have used case studies to compare target selection among specific groups. For example, Bruce (1997) compares victim selection by the Irish Republican Army (IRA) to the loyalists in Ireland. Bruce says that the IRA selected more "legitimate" targets than the loyalists, meaning the IRA killed fewer innocent civilians (p. 60). Bruce's article focuses on the attitudes and motivations behind the target selection highlighting that the loyalists made more mistakes or were misinformed about targets. Whether accurate or not, in both cases the groups intended to kill members of the opposition, as discriminate targets. Discriminate targets are associated with assassinations seeking to kill specific people, while indiscriminate targets are associated with mass killings of the public.

Another study compared discriminate and indiscriminate target selection between two nationalist terrorist groups, the Provisional Irish Republican Army (PIRA) and the Euskadi ta Askatasuna (ETA, Basque Homeland and Freedom) in Spain (de la Calle & Sanchez-Cuenca, 2006). The results indicate that the PIRA conducted more attacks with indiscriminate targets than the ETA. These studies suggest target selection differs among terrorist groups, but the sample was not large enough to make generalizing claims. In comparison, the Big Allied and Dangerous database (BAAD1) has cross-sectional data on terrorist groups that has been used to evaluate how ideology influences target selection (Asal, Rethemeyer, Anders, Stein, Rizzo, & Rozea, 2009). The results suggest that religious and religious-ethnonationalist ideology, larger sized groups, and groups with more alliances to other terrorist groups, are significant predictors for

attacking soft targets (Asal, Rethemeyer, Anders, Stein, Rizzo, & Rozea, 2009). There remains a significant gap in the literature regarding empirical studies evaluating how group size, financial support, group age, alliances, and minority status and/or ex-patriot membership may influence target selection.

The distinction between discriminate and indiscriminate targets is often associated with the number of fatalities in an attack. In the 1970s Brian Jenkins noted that "terrorists wanted a lot of people watching; they did not want a lot of people dead" (Jenkins, 2001, p. 8). However, studies show that terrorist attacks are becoming more lethal (see Hoffman, 1999; Schmid, 2004). Scholars have argued that the ideologies of contemporary terrorism are more accepting of lethal violence than ideologies of past terrorist groups (Asal & Rethemeyer, 2008b; Hoffman, 1999, 2006; Laqueur, 1998, 1999, 2004; Lesser et al., 1999; S. Simon & Benjamin, 2000; Steven Simon & Benjamin, 2001, 2002). Many scholars argue that targets are less discriminate in recent years due to the growing number of groups motivated by religion that seek to inflict mass casualties (Juergensmeyer, 2003; Neumann, 2009; Rapoport, 1998). Hoffman (1999) states that religious ideology is used to legitimize violence toward "an almost open-ended category of opponents" (p. 20).

In a cross-national study of lethal attacks from 1998-2005 Asal et al. (2008b) showed that religious ideology was a significant predictor of fatalities. Also using the BAAD1 data Asal et al. (2008a) measured the influence of the size of a group on the number of fatalities in terrorist attacks. The study argues that larger groups should be more capable of conducting lethal attacks by having more members that may be skilled and have access to funds. Other people have argued that large groups may be produce less fatalities because coordinating large groups may produce logistical complications (Oots, 1986). The results of the study showed that group size was a

significant predictor of fatal attacks with larger groups conducting more fatal attacks than small groups. Asal et al. (2008a) evaluated whether older groups conduct more lethal terrorist attacks. The results indicated that group longevity did not have an effect on the number of fatalities in attacks; however, these results may not accurately reflect how contextual variables mediate the influence of the age of a group on fatalities.[2] The current study contributes to this evaluation by empirically assessing how characteristics of terrorist group influence the number of fatalities in terrorist attacks.

Terrorist group characteristics may also influence the selected mode of attack. One mode of attack that has gained a lot of attention by researchers within the last two decades is suicide attacks (see review by Crenshaw, 2007). This mode of attack dates back centuries, but only recently began being used by non-state actors in the early 1980s in Lebanon (Crenshaw, 2007). Since that event suicide attacks have increased exponentially (Moghadam, 2008). Many scholars attribute the use of suicide attacks to terrorist groups with religious faiths, specifically radical Muslim, though secular groups, such as the Liberation of Tigers of Tamil Eelam (LTTE, Tamil Tigers), have used this mode of attack. Arguably, religious ideologies are more often associated with suicide attacks because religion provides a sense of purpose and obligation and, therefore, has more power than a political ideology to encourage one to choose to end his or her own life for a cause. These studies suggest group ideology influences the mode of attacks conducted by terrorist groups.

Similarly, financial resources likely impact the mode of attack used by groups. Each method of attack requires specific equipment. Preparing the belt for a suicide attack requires

[2] Note that the studies using the BAAD1 data (Asal & Rethemeyer, 2008a; Asal & Rethemeyer, 2008b; and Asal, Rethemeyer, Anders, Stein, Rizzo, & Rozea, 2009) include control variables for the home-base country, including a proxy for wealth, military spending, and the political system. The current study expands on this work by using a different methodology to analyze country-level variables and by including longitudinal counterterrorism strategies.

specific skill, but includes easily obtainable materials, and does not cost a lot of money (Atran, 2003). The greater the finances of a group, the better able the group is to acquire weapons and equipment in a clandestine manner. Likewise, a larger group has more members that may have greater access to materials, and may influence the methods groups choose to carry out attacks. Similarly, groups can learn tactics and obtain materials from other terrorist groups with whom they are allied. Many of the group characteristics are likely to influence the selected mode of attack; however, there are no empirical studies analyzing these factors to determine what has the most influence on the mode of attack selected by terrorist groups.

Policy-makers and researchers are not only interested in how attacks are conducted, but also where attacks take place. This paper argues that terrorist group traits likely influence whether attacks are conducted domestically or transnationally, meaning in a different country than the group's country of origin. It is argued that transnational attacks are conducted because the group's ideology distinguishes that country as an enemy or threat, and/or because the targets in that location are accessible. Ethnonationalist and separatist groups are motivated by political conflict in a particular location, which suggests attacks are more likely to be domestic. In comparison, religious ideologies are not limited by jurisdiction or boundaries. As stated previously, the target or enemy of a religious group may exist in multiple countries. For example, the enemy of many radical Muslim groups is the perceived infidel, one that is said to reject or doubt the tenets of a religious group, who may exist all over the world. Therefore, it is argued groups driven by religion are more likely to conduct more transnational attacks in comparison to politically motivated groups. Many political groups' concentration of operations is carried out in one country or region (Neumann 2009, p. 18). Although such groups sometimes use an international link to obtain money or training, these activities are often conducted to support an

effort in the defined region. Following similar logic, larger groups may operate in multiple countries and conduct more transnational attacks than small groups. The size of a terrorist group may be associated with the location of attacks, though there are no empirical studies that analyze how the size of a group is associated with the location of attacks. Similarly, alliances with other terrorist groups is a resource that can facilitate transnational violence. Alliances can provide information and means (e.g. financial and documentation) for terrorist group members to travel abroad to conduct such attacks.

Similarly, greater financial resources are likely to facilitate transnational attacks, which require additional travel and documents to cross borders to conduct attacks. Sageman (2008) argues that there are three different waves of Al Qaeda and the individuals composing each wave are distinct, in one respect, by socioeconomic status (SES). The first wave began in the 1980s and members of Al Qaeda were well-educated professionals with a comparably high socioeconomic status. The second wave occurred in the 1990s and included university students and some professionals averaging as a middle-class SES. The last wave, according to Sageman, took place after the United States invaded Iraq in 2003. These individuals were often second-generation immigrants living in western countries and were of the mid-low SES as they were less skilled and had less education than the prior waves. Sageman does not elaborate on how these differences influence the type of attacks conducted by each wave; however, knowledge of some of the attacks he associates with each wave indicate some relationships. The first and second wave were responsible for the U.S. embassy bombings in Kenya and Tanzania in 1998, the attack on the USS Cole in Yemen in 2000, and the attacks on September 11th. These attacks are all transnational taking place outside of Afghanistan, the country where Al Qa'ida originated. Attacks associated with the third wave include the Casablanca bombing in 2003, the Madrid

bombing in 2004, the London bombing in 2005, and the Cairo bombing in 2007. These attacks took place where these groups originated, and are therefore domestic. This information suggests that groups with more financial resources are better able to attack transnationally than groups with fewer resources. The decision to conduct transnational attacks is also likely to influence other aspects of an attack, such as the method and target selected. A study by Røislien and Røislien (2010) analyzes Palestinian attacks from 2000-2004 during the al-Aqsa Intifada and the results showed that the location of attack was a strong predictor of the type of attack and the number of casualties.

The decision to attack in a country, whether domestic or transnational, is likely influenced by the characteristics of the country. Most of the empirical research on terrorism consists of incident or count studies, which analyze or compare the number or type of attacks by terrorist groups. These studies often analyze how characteristics of terrorist groups influence attacks, but neglect analyzing how country contextual factors affect attacks. Other research, however, has evaluated how macro-level contextual factors influence terrorism. But, as is explain below, few of these studies also examine how the characteristics of terrorist groups influence attacks. The current study is the first to properly model the influence of both micro and macro factors on terrorist attacks.

Literature on country contextual factors

Ecological theory provides the most appropriate framework for explaining how different countries with varying political, economic, and demographic contexts influence terrorist group violence. Terrorism is intimately related to the responses from a political regime. Terrorist groups operate in countries with differing legal jurisdictions, political regimes, social constituencies, religious denominations, and economic disparities. These contextual

characteristics likely influence the types of terrorist groups that develop in the country as well as type of attacks groups conduct. This study argues that terrorist group violence is in part explained in relation to these country characteristics. In a review of terrorism literature, Lum et al. (2006) note there is a need for empirical research to evaluate "the relationships between terrorism and religion, socio-economic factors, and political responses" (Lum et al., 2006, p. 9). The current study expands upon the literature by including measurements of the country context in which a group operates into the analysis of terrorist attacks. This section of the paper discusses research on how terrorism is related to structural factors, such as the political regime, wealth, as well as ethnic and religious and heterogeneity.

Political scientists and economists dominate the empirical analysis of how structural factors influence terrorism. The majority of studies have focused on what type of countries experience greater levels of terrorism (Eyerman, 1998; Li, 2005; Nemeth, 2006). The type of regime a country has contributes to social norms and power dimensions between the public and those governing in a country. There are two schools of thought regarding the influence of democratic regimes and terrorism. The strategic school argues that democracies are more likely to experience terrorism due to the greater freedom to assemble, while the political access school suggests that democracies are less vulnerable to terrorism because there is less incentive to be violent when people can directly engage in the political process (Asal & Rethemeyer, 2008b; Eyerman, 1998; Li, 2005; Nemeth, 2006). The research evaluating the relationship between democratic regime and terrorism has not been conclusive (Eyerman, 1998; Li, 2005; Nemeth, 2006).

These studies focus on how regime type can influence the rate of violence, but no studies have empirically evaluated how regime type influences the mode or location of terrorist attacks.

Only a few studies have analyzed how structural factors influence the targets of violence inflicted by terrorists (Gurr, 1988; Nemeth, 2006, 2010). Gurr (1988) and Nemeth (2006) evaluated whether targets differed between different types of regimes. Gurr compared public person targets (politicians, military, police) and private person targets (civilian population) in 87 countries between 1961 and 1970. The private person targets were more common in European countries and Gurr concludes that, in his sample, democracies experienced more terrorism. Nemeth (2006) used International Terrorism: Attributes of Terrorist Events (ITERATE) data to show that democratic countries are associated with a larger range of targets compared to autocratic countries. Similarly, Khosrokhavar (2005) highlights how the political conditions in similar countries produce varying conceptualizations of martyrdom, suggesting modes of attack may be influenced by the political and social context of a country. The study of fatal attacks discussed in the previous section included measurement of democracy and economic development of the country (Asal et al., 2008). The results of this study showed that neither of these variables were significant predictors of lethality in terrorist attacks; however, this study did not use the optimal methodology to model these contextual factors. Much of this research suggests that the type of regime in a country influences terrorist attacks; however, most studies do not account for the additional influence of the type of group (e.g. ideology, group size, resources, longevity, minority and/or ex-patriot status) conducting the attacks.

Much like democracy enables citizens to engage in political dialogue in a non-violent manner, countries that protect human rights and do not engage in torture or political executions are likely to facilitate and encourage peaceful means of protest. Arguably, the literature on democratic regimes may be inconsistent because it is the protection of human rights, which is often associated with such regimes, that decreases the likelihood of political violence. Ecological

theory suggests that the protection of human rights may have a distinct influence from the type of regime in a country, and this study contributes to the literature by including this country characteristic into the assessment of terrorism.

Economic wealth is another contextual factor that has been evaluated in the terrorism literature. Poverty, or economic strain, has been considered a causal factor behind terrorism (see Agnew, 2010; Stern, 2001). Despite the theoretical arguments, the literature suggests it is not a direct cause (Krueger, 2008; Atran, 2003; Krueger & Maleckova, 2003; Piazza, 2006; Abadie, 2005). Multiple studies have used different methods to measure how poverty is related to terrorism, each showing little connection (Abadie, 2005; Krueger & Maleckova, 2003; Piazza, 2006). These studies evaluate how economic factors influence rates of terrorism or attitudes toward terrorism rather than the influence of poverty on the type of attacks conducted by terrorists. This study contributes to the literature by including a measure of the gross domestic product for each country, as well as a measure of the disparity of wealth, or economic inequality, within each country.

There are no studies of terrorism that empirically analyze how the degree of ethnic and religious heterogeneity in a country may affect terrorist attacks. There is a great deal of literature discussing the psychological polarization, us-versus-them attitude that develops as one becomes radicalized (Crenshaw, 1981; McCauley & Moskalenko, 2011; Silke, 2003; Strozier, Terman, Jones, & Boyd, 2010). Perceived marginalization is argued to be experienced differently when a group is within a largely homogenous country as opposed to within a heterogeneous population. It is argued that the proximity to the "other," and how a group identifies with a segment of the population due to diversity (whether as a minority or as part of the majority), is likely to influence terrorist attacks at the country-level. Although there is no prior literature that evaluates the influence of diversity on terrorism, ecological theory suggests that this demographic factor

may influence how terrorist group conduct violence. The current study adds to the literature on the relationship between the degree of heterogeneity in a country and terrorist attacks.

Most of the studies analyzing the influence of country characteristics on terrorism are only evaluating the number of attacks and not comparing the types of attacks conducted. This study evaluates how these country characteristics influence the number and type of attacks conducted to address this gap in the literature. An understanding of terrorist violence, however, is incomplete without the discussion of counterterrorism policies and how they can be uniquely directed at specific groups.

Counterterrorism Research

Most terrorism studies are limited to an analysis of terrorist group behavior, and often ignore the *dynamic* relationship between terrorist groups and the state. For example, terrorist incidents are likely influenced by state policy, particularly counterterrorism policies. Counterterrorism policies are "responses to and the efforts to prevent" terrorism (Crelinsten, 2007, p. 211). Proper evaluation of terrorism requires analyzing the relationship between terrorism and counterterrorism policies, rather than terrorism in isolation. Likewise, the social and political context of a country influences which counterterrorism policies are implemented. A handful of studies have analyzed terrorist group behavior in relation to state policy (Cronin, 2009; Hafez & Hatfield, 2006; LaFree, Dugan, & Korte, 2009a; Pridemore & Freilich, 2007). However, as I explain below, these studies focus on a single group, a single location or region, or a single counterterrorism policy.

A great deal of research on the influence of counterterrorism policy on terrorist violence are case studies that evaluate a single terrorist group. For example, there have been many studies focusing on the Irish Republican Army (IRA) (Campbell & Connelly, 2003; LaFree, Dugan, &

Korte, 2009b; Peroff & Hewitt, 1980). LaFree et al. (2009) evaluated the relationship of IRA attacks to six counterterrorism policies between 1969 and 1992 in Northern Ireland.[3] The results of this longitudinal study showed that three policies increased rates of violence (backlash), one policy deterred violence, and two policies showed no effect on the rate of violence. This study evaluated the influence of counterterrorism on the number of attacks, but did not evaluate if this influenced the types of attacks the IRA conducted. Barros (2003) evaluated how various interventions in Spain influenced Euskadi Ta Askatasuna (ETA, Basque separatist group) assassinations and kidnappings between 1968 and 2000. Different models showed that the increase in expenditure for the military and police did not show a statistically discernible effect, however, the socialist political party in power was found to have a statistically significant effect on ETA attacks. This study evaluated how policies influenced the number of assassinations and kidnappings showing that policies had different effects on various modes of attack. These findings suggest different counterterrorism policies have different effects on a group. The results, however, cannot be generalized to help inform policy-makers in other locations dealing with different terrorist groups.

Other studies do not limit analysis to a specific group, but rather evaluate the influence of counterterrorism policies on terrorist attacks in a specific country or region. The first study of counterterrorism interventions evaluated the influence of laws and security at airports on the rate of U.S. airline hijackings between 1961 and 1976 (Landes, 1978). The results of this study showed support for deterrent measures, such as the probability of apprehension and incarceration, which are associated with the decrease in the number of U.S. hijackings in that

[3] This study was replicated to evaluate counterterrorism policies directed at the Euskadi Ta Askatasuna (ETA) in Spain, finding similar results. It will be published in the forthcoming special issue of *Terrorism and Political Violence.*

time frame. Another example of research on a specified location is a study by Pridemore and Freilich (2007), which evaluates the influence of laws implemented in the United States to protect clinics and reproductive rights on victimization at abortion clinics. The results indicate that the laws did not increase or decrease victimization. Both of these examples show that counterterrorism policies were implemented to address specific targets or modes of attack conducted by any terrorist group in a region. Brophy-Baermann and Conybeare (1994) analyzed counterterrorism policies in a different location, Israel. They evaluated six military retaliation policies conducted by Israel against the Palestine Liberation Organization (PLO) and Lebanon between 1972 and 1988. The results indicate that only the initial retaliation to the 1972 Munich massacre caused a change in the rate of terrorist attacks. This study shows how counterterrorism policy is related to the history of attacks in that area, which highlights the value of measuring counterterrorism policies in relation to terrorism over time. These studies limit analysis to one ecological country context, and therefore the findings cannot be generalized to other countries.

Similarly, some studies focus analysis on a single policy in a single location. For example, Hafez and Hatfield (2006) evaluated the influence of one counterterrorism policy, targeted assassinations, implemented by the state of Israel. The results showed that this particular counterterrorism policy had no significant impact on the rates of Palestinian violence. Another study evaluated a similar counterterrorism strategy cross-nationally. Jordan (2009) compared the effects of leadership decapitation, which is arresting or killing terrorist leaders. Results of the study indicated that groups do not all respond the same. Rather, there is significant variation in whether groups desist, maintain, or increase violent behavior. Jordan (2009) evaluated whether the ideology of the terrorist group predicted how the group responded to leadership decapitation. The results indicated that religious groups are more resilient to this policy, thus maintaining or

increasing violence after the leader(s) had been removed. These two studies show that the outcome of a targeted assassination policy in Israel would not necessarily produce the same results among different terrorist campaigns.

While some counterterrorism policies may deter a single group, these same policies may increase violence among other groups. Cronin (2009) identifies six policy measures directed toward terrorist groups that contribute to the decline and end of terrorist group violence. These policies include: "1 –capture or killing of the group's leader, 2 –entry of the group into a legitimate political process, 3 –achievement of the group's aims, 4 –implosion or loss of the group's public support, 5 –defeat and elimination by brute force, and 6 –transition from terrorism into other forms of violence" (Cronin, 2009, p. 8). She uses case studies to compare how different terrorist groups have responded to these methods of government interaction with terrorist groups.

Cronin (2009) provides a few case studies showing how contextual and historical factors explain how various terrorist groups react to each type of policy. For example, the arrest of Manuel Ruben Abimael Guzman Raynoso (Guzman), the leader of Sendero Luminoso (the Shining Path) in Peru, in combination with the government's amnesty to fighters resulted in a decline in violence by over 50 percent the following year and a continued decline thereafter. In comparison, Abdullah Ocalan, the leader of the Kurdistan Workers' Party (PKK) in Turkey, was arrested in 1999, which initially caused the number of attacks to decrease when he told PKK members to refrain from violence. According to Cronin (2009), the number of attacks later increased due to the geopolitical conflict that destabilized the region with the U.S. invasion of Iraq in 2003. The character of each of these leaders also influenced the different effects, indicating the importance of including both characteristics of the group and the broader

ecological context in a comprehensive study. Although Cronin's study provides valuable information about how temporal factors influence the effect of counterterrorism policies, the study does not include statistical analysis to identify trends in how different groups respond to policies. These examples, however, do indicate the importance of a longitudinal evaluation of counterterrorism policies that includes macro-level contextual factors.

Although macro-level country characteristics are not always accounted for, multinational studies of counterterrorism policies have been conducted. Chalk (1998) evaluated counterterrorism interventions in Italy, Spain and Peru. The study did not use statistical analysis or the rate of terrorist attacks to draw conclusions about the impact of specific government policies. The study concluded that the government responses to the terrorist groups threatened the liberal democratic regime. Nevin (2003) examined counterterrorism policies at seven specific locations and designated points in history. The study used information from the New York Times and the Encyclopedia of World Terrorism to conduct statistical analysis. The results of the study show that there was no evidence that military campaigns reduced terrorism. Although multinational studies can show trends in the effectiveness of policies across nations, the scope is not comprehensive and the results cannot be generalized.

A number of studies analyze transnational terrorism (Cauley & Im, 1988; Enders, Sandler, & Cauley, 1990, respectively). In contrast to the multinational studies described earlier, these studies of transnational terrorism exclude domestic incidents. Cauley and Im (1988) evaluate the influence of three specific counterterrorism strategies: airport security measures implemented in 1973, increased security for diplomats and embassies in 1976, and the United Nations (UN) convention from 1977 to prevent crimes against diplomats. Results showed that only metal detectors reduced hijacking incidents in the long and short term; however, this

reduction was associated with a displacement as other forms of terrorism increased. Enders, Sandler and Cauley (1990) used a similar analysis to show that the United States retaliatory strike on Libya is associated with an increase in terrorist attacks in the short term that target the United States and United Kingdom. These results suggest that some counterterrorism policies may influence the targets of terrorist attacks. Similarly, Enders, Sandler and Cauley (1993) used similar data and conducted similar analysis including an additional variable: added security at U.S. embassies. The study also expanded the analysis to include evaluation of substitution across different forms of terrorism. The results show that the decrease in hijacking and attacks on diplomats due to metal detectors was associated with an increase in hostage taking and assassinations. The displacement described in these studies suggests that some counterterrorism policies may influence the mode of attacks used by terrorist groups.[4] In 2000, Enders and Sandler expanded their prior study and included a variable indicating the change of governments following the end of the Cold War. The study also compared how these interventions influenced the number of deaths, wounded, and non-casualty incidents. The findings of these studies suggest counterterrorism policies influence the way terrorists conduct attacks; however these studies only evaluated transnational attacks and the results cannot generalize to domestic terrorism.

A Campbell Systematic Review was conducted of research on counterterrorism strategies in 2006 (Lum et al., 2006). Seven studies were identified in the literature that used a moderately rigorous method of analysis to evaluate the effectiveness of counterterrorism policy. Meta-analytic techniques were used to evaluate the results of each of the studies previously described separately (Barros, 2003; Brophy-Baermann & Conybeare, 1994; Cauley & Im, 1988; Enders & Sandler, 1993, 2000; Enders et al., 1990; Landes, 1978). The meta-analysis evaluates the effect

[4] Hsu and Apel have written an article that tests Situational Crime Prevention's displacement effect in the forthcoming (Fall 2014) special issue of *Terrorism and Political Violence.*

sizes of 86 findings from these seven studies and cautiously reports the effects of six counterterrorism strategies. The first strategy evaluated, metal detectors and increased airport security, was found to reduce hijacking of airplanes, however, other forms of terrorism were shown to increase suggesting a displacement or substitution effect (Lum et al., 2006, p. 26). Much like the study found before, this suggests counterterrorism policies influence terrorists' mode of attack. The results of fortifying embassies and increased protection of diplomats, the second strategy evaluated, showed that these methods were not effective at reducing terrorism directed at these targets. This suggests these counterterrorism measures did not significantly affect the target selection of terrorist attacks. The third strategy, increasing the severity of punishment for hijackers, did not show a significant decrease in hijacking incidents suggesting this counterterrorism measure did not influence the mode of operation for these terrorist attacks. The fourth strategy evaluated was the impact of United Nations resolutions against terrorism. The results indicate that these resolutions, controlling for the influence of metal detectors, did not reduce terrorism.

Military retaliations, the fifth strategy, only evaluated the influence of the U.S. attack on Libya in 1986 and Israeli strikes on the Palestine Liberation Organization (PLO) and Lebanon. The results show that there was a significant increase in terrorist attacks soon after the U.S. attack on Libya, although this effect was only found for non-casualty attacks. The results suggest that these retaliations were associated with an increase of attacks on Israel, the United States, and the United Kingdom, indicating a relationship between this counterterrorism measure and both the number and targets of attacks. Lastly, the review analyzed the influence of political governance change, specifically, the end of the Cold War and the Socialist party in control in Spain. The results indicate non-casualty incidents decreased; however, assassinations and attacks

associated with wounded and deaths increased. These results suggest regime change has an influence on the number of attacks with fatalities. The review was limited to existing studies, which only analyze a subset of counterterrorism strategies and are not comprehensive of terrorism worldwide. The effects of military retaliation or political change cannot be generalized from two examples.

The review of counterterrorism research indicates that it is difficult to draw conclusions with such a small sample of data, and counterterrorism policy research tends to focus on how policies influence the rate of attacks, and rarely addresses the influence of counterterrorism policies on the type of attacks conducted. These cross-national studies do not account for differences between terrorist groups in reaction to counterterrorism policy. Some policies have uniform application, such as airport security, while other policies are directed specifically at a group in a certain point in time, such as targeted assassinations. The cross-national studies that focus solely on general counterterrorism policies are not able to account for the effect of location-specific or group-specific counterterrorism policies.

There are few empirical studies of counterterrorism interventions, and those that do exist narrow the scope of analysis to specific locations, policies or groups, often in relation to rates of attacks. There is a gap in the literature regarding the evaluation of counterterrorism policy cross-nationally that accounts for the changes in policy directed toward each specific group over time within the unique context of each country on the types of terrorist attacks groups conduct. Lum et al. (2006) state that "it is important that these data are improved through the addition of important contextual information that will help uncover the multitude of factors that influence these events" (p. 34). Ecological theory suggests that cross-national and longitudinal evaluation of counterterrorism policies that does not include macro-level country characteristics may not

fully explain the statistical variation, and may misattribute the influence of counterterrorism policies on terrorist attacks.

While prior research offers significant information on how counterterrorism policies influence terrorist group violence, there is a gap in our understanding of how and why counterterrorism policies influence the types of terrorist attacks in different countries. These studies indicate that not all counterterrorism policies produce the intended deterrent effect, and similar policies may not produce the same outcome across terrorist groups. Some counterterrorism policies have caused groups to increase in violence, which is described as backlash, while other policies are associated with displacement, or the change in terrorist tactics to conduct violence.

The current study expands upon this literature by empirically analyzing how distinct types of terrorist groups operating in different country contexts respond differently to various types of counterterrorism measures (e.g. punishing counterterrorism measures, rewarding policies, counterterrorism tactics targeting group structure and composition, and measures implemented to limit group movement). The study uses advanced statistical modeling to evaluate the dynamic relationships between counterterrorism measures and terrorist groups in relation to the country context in which the group operates. Before discussing the specific aims of this study, it is worthwhile to briefly discuss the methodology used in prior terrorism research to highlight the limitations of past research and why multilevel modeling is necessary for the cross-national, longitudinal study of terrorist groups.

Statistical Methodology in the Study of Terrorism

Terrorism is a topic studied in multiple academic disciplines using a variety of research methodologies (Lum, Kennedy, & Sherley, 2006). However, most terrorism research is

comprised of exploratory or descriptive case studies providing anecdotal evidence of trends, but lacking empirical validation or suitable statistical comparisons (Lum et al., 2006; A. P. Schmid & Jongman, 1988, 2005; Silke, 2001). A review of the literature found that some studies include descriptive statistics, but generally terrorism studies do not include any statistical analysis (Silke, 2001). A separate review of the terrorism literature (total of 4,458 published between 1971 and 2003) found that only three percent of the peer-reviewed articles identified were empirical studies of terrorism using a qualitative or quantitative method of analysis on terrorism data (Lum et al., 2006). The scarcity of empirical studies of terrorism is in part due to the difficulty of obtaining data on clandestine groups.

There is a lack of sophisticated statistical studies for examining terrorism. The current study expands upon the previous literature by contributing conceptually as well as methodologically. Longitudinal multilevel modeling, which is elaborated on in chapter 5, is used to evaluate terrorist violence over time. One unique contribution of this study is that it models the influence of counterterrorism policies directed specifically toward each group in the analysis to capture the temporal influence of such policies. This study also includes counterterrorism legislation passed by countries that are meant to combat all terrorist groups operating in their borders at the country-level. In addition to the influence of counterterrorism policies measured over time, the modeling technique used allows this study to capture the influence that group traits and the country context each have on terrorist violence. The data is structured with three levels of analysis. The repeated measure of evaluation, years the group was in operation between 1998 and 2007 is level one (year level). These years are within or belong to the terrorist group, which is level 2 (group level). And the groups are clustered within countries, level 3 (country level). This modeling allows one to evaluate the direct effects of variables at each level, controlling for

all other variables, as well as model moderation effects, or how characteristics of one level (i.e. the country) condition the effect of a variable at level two (i.e. a trait of a group) on the outcome variable. It is also worthwhile to note that there is only one published study on terrorism that uses multilevel modeling.[5] Most of the quantitative research on cross-national terrorism that has been conducted has not accounted for the clustering of attacks within groups or within countries, which technically violates the assumptions that underlie most types of analysis and fails to capture the unique trajectories between different types of groups operating in different environments.

This study expands upon prior research by disaggregating counterterrorism policy to the year and to the group, rather than modeling the influence of all counterterrorism policies at the country level. This was a particularly relevant decision in light of the fact that many terrorist groups are affected by foreign countries' counterterrorism efforts; not solely the acts of the home-base country in which a terrorist group operates. Focusing solely on the counterterrorism measures taken by the home-base country would not properly evaluate the influence of a counterterrorism measure (i.e. torture used by the United States on Al Qaeda members). Even if the home-base country did not conduct the policy, terrorist group behavior is likely affected by such policies directed at them by another country. It is important to model the effect of a counterterrorism measure regardless of which country implemented the policy toward the group. It is possible that a single policy may have a distinct or unique effect depending on whether it is carried out by the home-base country or a foreign authority. The data collected for this study is recorded designating the authority implementing each longitudinal counterterrorism policy.

[5] The only published study using multilevel modeling with terrorism data evaluated court processing of indicted terrorists in the United States nested within different U.S. District Courts (Johnson, 2012).

Future research can evaluate whether there is a different effect depending on the governing body implementing counterterrorism policies.

The current study expands on the previous literature by analyzing cross-national terrorism trends and patterns over time with advanced modeling techniques. The aims and related hypotheses addressing each of the three units of analysis are elaborated on in the following section.

CHAPTER 4

SPECIFIC AIMS AND HYPOTHESES

Specific Aims

This cross-national study examines whether and how counterterrorism policies, terrorist group characteristics, and country contexts influence violent terrorist group attacks over time. There are multiple aims in this study with related hypotheses. This section is organized around each aim and the corresponding hypothesized relationships between country, group, and counterterrorism polices and the characteristics of terrorist violence: the number of attacks, number of fatalities, targets of attacks, mode of attack, and location of attack. The hypotheses are also listed in Table 1.

First aim: Counterterrorism Policies

The first aim is to determine if counterterrorism policies affect the way terrorist groups carry out violence. As briefly discussed at the end of the prior chapter, counterterrorism policies are group specific. The policy is recorded for each year for each group regardless of what country is conducting the counterterrorism measure. Counterterrorism policies are "responses to and the efforts to prevent" terrorism (Crelinsten, 2007, p. 211). This definition is broad and includes many different acts carried out by authority, ranging from a single action (i.e. carrying out a mass arrest), to long-term policies (i.e. putting group members into internment, or establishing deradicalization programs). Some policies can have sweeping effects on multiple groups (i.e. curfews, checkpoints), while others address a single group (i.e. implementing a ceasefire).

The wide range of counterterrorism policies is likely to be associated with different terrorist behavior. Before going further, however, it is important to qualify the nature of the

predicted associations between counterterrorism policies and terrorist groups' violence. Although this study uses longitudinal modeling, evaluating a causal relationship is extremely difficult with dynamic relationships where counterterrorism policy and terrorist group behavior affect each other.[6] A counterterrorism policy (e.g. torture) may cause a group to conduct more attacks or target specific victims. Conversely, it is also likely that the number of attacks or the victims targeted by a group may influence the types of policies directed at the terrorist group. As such, a causal relationship can be difficult to establish, so the hypotheses I am making suggest that the policy is *associated* with the violence terrorist groups undertake. The following discussion of counterterrorism policies elaborates on how different types of policies may have different relationships with the amount and forms of terrorist group violence.

As previously discussed, there are a wide range of counterterrorism policies. Counterterrorism policies span a spectrum from those that are extremely punishing, to policies that are seen as rewarding good behavior. All policies can be criticized and each end of the spectrum elicits controversy, but qualitative investigation into these policies is not the intention of this paper. Rather, this study investigates whether a policy that is punishing (i.e. torture, internment, or a "stick" counterterrorism approach) has differing effects than policies that are rewarding (i.e. deradicalization program, ceasefire, or a "carrot" counterterrorism approach) on terrorist violence. As shown in the literature review, some policies may cause a backlash effect, or an increase in the number of attacks, while other policies may deter group behavior. Similarly, some forms of violence may provoke certain types of policies to be enacted. Although not all

[6] The study considered lagging the counterterrorism variables by a year in an attempt to analyze cause and effect, but this would not necessarily model the true relationship between policy and violence because a year is an arbitrary timeframe. Groups may react to a policy in much less time than a year, and at the same time a policy may elicit a long-term effect that would not be shown by a year. Given these limitations, it was preferred to maintain the counterterrorism policies in the year they occurred to model how they are associated with group violence.

groups may react the same to a policy, it is hypothesized that there is a relationship between "rewarding" counterterrorism measures and group violence. Arguably a terrorist group may be interested in maintaining the benefits of such policies, and be deterred from engaging in behavior that would incite a more threatening response from the governing body. For example, a terrorist group may choose to conduct fewer attacks, or express their grievances in a less provocative manner by causing fewer fatalities, or conducting less violence toward those implementing rewarding policies (e.g. government, police, military). Likewise, rewarding counterterrorism policies (e.g. ceasefire, deradicalization programs, or a "carrot" counterterrorism approach) are likely to be implemented toward groups that are less violent. The social movement literature and theories of political encouragement, however, suggests that these types of policies may be interpreted as rewarding violent behavior, which may lead to more attacks (see Hewitt, 2003; McAdam, 1982). These ideas lead to the following hypotheses:

H1a: Rewarding counterterrorism policies will be associated with groups conducting fewer attacks, having a lower rate of fatalities, and less violence targeting actors of the state.

H1b: Rewarding counterterrorism policies will be associated with groups conducting more attacks, higher rates of fatalities, and more violence directed at state actors.

In contrast, punishing counterterrorism policies (e.g. torture, internment, or a "stick" counterterrorism approach) may cause backlash or deter terrorist group violence. Harsh policies may aggravate a group's base and encourage violence, while such policies may also dissuade groups from conducting more attacks. If punishing policies are associated with a backlash effect, a group may react by conducting more attacks, increasing the number of fatalities, carrying out suicide attacks, and using violence to target government, military and police that represent the

state. Similarly, excessive violence carried out by a group is likely to be provoke the implementation of harsh policies. The information leads to two contrasting hypotheses:

H2a: Punishing counterterrorism policies will be associated with more attacks, a greater number of fatalities, the use of suicide attacks, and violence targeting actors of the state.

H2b: Punishing counterterrorism policies will be associated with fewer attacks, fatalities, and with less violence targeting state actors.

There are other counterterrorism policies that may provoke differing forms or degrees of terrorist violence depending on how they are implemented. For example, leadership decapitation may produce different effects depending on whether the terrorist group leader was assassinated or arrested by the state. Similarly, mass arrest may have differing effects depending on the legitimacy of the arrests and the number of people arrested. Both of these counterterrorism policies, leadership decapitation and mass arrests, however, are associated with a change in group structure or composition. Leadership decapitation removes a terrorist group leader, while mass arrest reduces the number of terrorist group members. In practical terms, changes in the terrorist group structure may significantly reduce the ability of groups to conduct attacks. However, these policies may be implemented in response to substantial group violence. It is also possible that policies directed at group structure and composition may result in group leadership losing control of their group members, which may result in more terrorist attacks (see Shapiro, 2013; Berman, 2009). As a result, the causal order may be unclear. In any case, we would expect to find an association between counterterrorism policies that affect group structure or composition and the type of violence a group conducts, which leads to two contrasting hypotheses:

H3a: Counterterrorism policies that target a terrorist's group structure will be associated with a less terrorist violence.

H3b: Counterterrorism policies that target a terrorist's group structure may cause a group to lose control of members resulting in more attacks, or such policies may be implemented in response to terrorist attacks, and therefore will be associated with more terrorist violence.

There are other counterterrorism policies that alter opportunity for various forms of violence. Specifically, checkpoints and curfews limit movement in certain locations. Checkpoints may protect some targets (i.e. government structures) from terrorist attacks while also creating a location for an attack against specific targets (i.e. police, military, civilians). Curfews reduce the amount of movement and the accessibility of certain targets (i.e. civilians, businesses). It is necessary to note, however, that checkpoints may be implemented in response to attacks against government targets, and curfews may be established in response to attacks from terrorist groups. These ideas lead to the following contrasting hypotheses:

H4a: Counterterrorism policies that seek to limit terrorist group movement will be associated with less terrorist group violence.

H4b: Counterterrorism policies that seek to limit terrorist group movement may be implemented in response to terrorist attacks, and therefore will be associated with more terrorist group violence.

These counterterrorism measures are not uniformly applied to all groups in country, or to the entire time period a group is operating. To capture the relationship between counterterrorism policies and terrorist violence, these policies are measured for when they were directed toward a group for each year. In other words, a ceasefire issued by the country toward a group in 2002 is

recorded for that year and if it was maintained for the following two years the ceasefire is also recorded for 2003 and 2004. The traits of a terrorist group, however, may directly affect the type of terrorist violence independent of the counterterrorism policies being applied toward the group, which leads to the next aim.

Second aim: Group traits

The second aim of this study is to determine if terrorist group traits influence the group's violent behavior. As shown in the literature review, group ideology may constrain or provide justifications for different acts of violence. The literature suggests that religious ideology justifies suicide attacks, violence with more fatalities, and more indiscriminate targets due to the perceived existential justification for violence and the related ability to dehumanize the "other." Religious groups are often less ideologically tied to a local conflict or political concerns. Additionally, some groups have global agendas that identify the "far enemy" (non-Muslim states, including the United States, that are seen as enemies of radical Islam), and condemn cultures that span specific geographic borders. This ideological framework explains and justifies groups that conduct attacks abroad. In contrast, ethnonationalist groups are engaged in more geographically isolated conflicts with clearly defined opposition that is often associated with the state. Ethnonationalist groups are likely to cause fewer fatalities, and conduct violence in their home-base country where the conflict is focused. Leftwing groups, in comparison, are driven by an economic and social ideology that suggests these groups target businesses and state actors. This information about ideologies leads to the following hypotheses:

H5: Religious groups will conduct attacks with more fatalities, will target civilians, and will engage in transnational attacks.

H6: Ethnonationalist groups will conduct attacks targeting state actors (e.g. government, police, law enforcement), and will engage in more domestic attacks.

H7: Leftwing groups will conduct attacks targeting businesses and actors of the state (e.g. government, police, law enforcement).

Terrorist groups can be distinguished by whether members represent a religious or ethnic minority, and whether the group consists of ex-patriots operating in the home-base country. Both minorities and/or ex-patriot groups may be better able to dehumanize the majority populations, which may facilitate these groups to conduct attacks with many fatalities, and to target civilians. Similarly, these terrorist groups may represent a disenfranchised group in the population, which may be attributed to the government and therefore minority or ex-patriot terrorist groups may target the government in their attacks. Ex-patriots are from another country, and these terrorist groups may have a geographic agenda related to their country of origin, or they may not have a geographically based agenda at all. In either case, ex-patriot terrorist groups may be more inclined to conduct transnational attacks. With this information it is hypothesized:

H8: Minority and ex-patriot terrorist groups will conduct attacks with more fatalities and will target civilians.

H9: Ex-patriots will conduct more transnational attacks.

Terrorist violence is also contingent upon the amount of resources available to the group. The size of the group, financial support, and the number of alliances to other terrorist groups are likely to affect a terrorist group's violent behavior. Groups with more resources will have the ability to conduct many attacks and acquire weapons that may produce more fatalities. Similarly, roadblocks or security details that protect hard targets may be easier to circumvent for an attack if a group has resources. Lastly, transnational attacks are easier for terrorist groups with

manpower, funds, and alliances because gaining access to another country and operating there requires additional resources. This information suggests the following hypothesis:

H10: Terrorist groups with more resources will be able to conduct more attacks, have a greater number of fatalities, attack hard targets, and conduct transnational attacks.

These terrorist group traits are hypothesized to have direct influences on terrorist violence. Terrorist group agendas previously discussed suggest a relationship between the group and the environment. Therefore, the context in which terrorism occurs may have direct effects on the type of terrorist violence that occurs there, independent of the types of groups conducting attacks, which leads to the next aim.

Third aim: Country context

The third aim of this study is to investigate how country characteristics influence terrorist groups' violent behavior. Prior research and ecological theory suggest different environments influence the number and type of terrorist attacks groups conduct. The literature discussing the psychological polarization one experiences while becoming radicalized suggests that identification with a terrorist group is a relational process, meaning it simultaneously involves the identification of an out-group. Demographic characteristics of a country may contribute to the perception of disparities between groups (differences between ethnic and religious groups, and economic disparities in a country). Heterogeneity may cause frustration among those that perceive they are disenfranchised and fear among the majority factions. In a diverse population, terrorist groups may identify with a small proportion of society and designate the large majority of society as an out-group. Groups in a heterogeneous population may be more psychologically primed to conduct indiscriminate attacks with many fatalities. Another demographic feature of a country that may influence terrorism is economic marginalization. This study is interested in

whether the disparity in wealth, which may be related to poverty, is a more fruitful and meaningful measure of economic marginalization. Large disparities in wealth are likely to cause resentment and hostilities between segments of the population in a country, and therefore are likely to suffer from more terrorist violence than countries with greater economic equality. This information leads to the following hypotheses:

H11: Religious and/or ethnic heterogeneity in a country will experience greater terrorist violence and more indiscriminate attacks.

H12: Countries with large economic disparities will suffer more terrorist attacks.

The literature on the influence of a democratic regime is inconclusive. Despite different theories suggesting how democracy can facilitate terrorism, this study argues that opportunities for political engagement, as well as the government abstaining from human rights abuses, create an environment for non-violent means of protest. Therefore, these characteristics of reliable government are thought to discourage violence, including attacks with fatalities. Based on this information it is hypothesized:

H13: Democracies will suffer fewer terrorist attacks and fatalities.

H14: Countries with fewer human rights abuses carried out by the government will experience fewer terrorist attacks, casualties, and acts of violence targeting state actors.

These hypotheses suggest how the country context may have direct effects on terrorist violence. It is possible, however, that certain characteristics of a country have an effect on some groups more than others. This is an example of moderation, which leads to the next aim.

Fourth aim: Moderation relationships[7]

[7] Note unless otherwise stated, that the hypothesized moderation relationships are only tested if each of the variables have significant direct effects on the outcome variable.

The fourth aim of this study is to investigate moderation effects. This study seeks to evaluate whether and how the country context may condition the effect of group traits on violent behavior. The same type of terrorist group may conduct violence differently in distinct country contexts. For example, groups with an ethnonationalist agenda may be influenced by the ethnic heterogeneity in the country. There is no study that has evaluated this relationship, however, it is argued that these groups would conduct fewer attacks in areas that are more ethnically heterogeneous because the ethnic differences between groups are less concentrated in comparison to areas that are more homogenous. Areas that are more homogenous have more concrete groupings, which facilitates the in-group and out-group radicalization process for groups that identify themselves by ethnicity. Likewise, groups with a pure religious ideology may act differently depending on the religious heterogeneity of the country in which they are operating. Similarly, it is argued that religious heterogeneity attenuates the in-group and out-group distinction, and so religious groups conduct fewer attacks in religiously heterogeneous countries. Additionally, disparities in wealth may have more influence on leftwing groups whose agendas focus on economic equality. Based on these arguments, it is hypothesized:

H15: Ethnonationalist groups will conduct fewer attacks in countries with greater ethnic heterogeneity.

H16: Religious groups will conduct fewer attacks in countries with greater religious heterogeneity.

H17: Leftwing groups will conduct more violence in countries with greater economic disparities.

It is also likely that terrorist group traits moderate the effect of counterterrorism policies on group violence. As the literature suggests, different groups may respond differently to the

same policy. For example, it is logical to argue that mass arrest has a different influence on group violence depending on the size of the group. Similarly, group ideology may condition the effect of counterterrorism policies. For example, ethnonationalist groups with a local and politically based agenda may respond more favorably to rewarding counterterrorism policies (e.g. ceasefire, deradicalization programs, or a "carrot" counterterrorism approach). Therefore, it is hypothesized:

H18: Mass arrests have less effect on group violence for groups that are larger in size.

H19: Ethnonationalist groups will conduct fewer attacks in relation to rewarding counterterrorism policies.

Another moderation may be found between terrorist ideologies and time. The literature suggests that there are waves of terrorism when some ideological groups become more common while others become less so. This suggests that certain groups that were more common in the 20th century, such as leftwing groups, may be associated with fewer attacks over time. Similarly, the latest wave suggests that religious groups are more common so these terrorist groups may have an increasing or consistent number of attacks over time. The literature also suggest that targets and mode of attack may differ over time in response to counterterrorism policies. Therefore, it is hypothesized:

H20: Terrorist groups of varying ideologies will have different trajectories of violence over time.

The moderation relationships show the importance of contextualizing terrorist violence. The current study models the temporal influence of counterterrorism policies, group traits, and the home-base country. As discussed previously, there are many terrorist groups that conduct

transnational violence. It would be valuable to model the contextual factors of each country, which leads to the fifth aim.

Fifth aim: Modeling factors

Many groups operate in multiple countries. The current study aims to determine if modeling each of the countries a group operates within improves the statistical measurement of counterterrorism, group, and country effects on terrorist attacks. Some groups operate in countries with very different contexts, so it is argued that modeling all the countries a terrorist group attacks is important both conceptually, to account for the influence of all locations on a group's behavior, and methodologically, to explain more variance in the data and improve the analysis. It is hypothesized:

H21: The measurement of factors that influence terrorist violence will be improved by including the influence of all countries a terrorist group attacked within in the analysis.

Proper analysis of the data should allow us to identify what counterterrorism, group, and country factors have direct effects on terrorist violence.

Summary

The aims and hypotheses for this study include the identification of direct effects, moderation effects, and comparison across models. This research requires multiple levels of data, so the following chapter elaborates on the data collected and the method used to analyze the data and test the hypotheses described.

CHAPTER 5

DATA SOURCES, SAMPLE, MEASURES, AND DATA ANALYSIS

Data Sources

The current study uses quantitative statistical measures to model and test the aims and hypotheses described above. Most of the research on terrorism relies on open-source data, which is information accessible from the media, government reports, non-governmental organizations, and other relevant secondary sources (Silke, 2001). This type of data has limitations regarding scope, bias, and difficulty verifying accuracy. Silke (2001) emphasizes the benefit of using inferential statistics that add a level of control when working with data obtained from open-source research. The following sections of this chapter discuss the sources of data for the study, the variables being measured, and how inferential statistics are used in the data analysis.

Big Allied and Dangerous (BAAD)

The Big Allied and Dangerous (BAAD) dataset is one of very few cross-national terrorist group-level datasets (Asal & Rethemeyer, 2009). The dataset was created to examine what factors contributed to group lethality. The BAAD dataset quantified information from the Memorial Institute for the Prevention of Terrorism (MIPT)'s Terrorism Knowledge Base ® (TKB®), and then extended the data through verification and open-source coding. There are 395 terrorist organizations that conducted at least one attack and operated between 1998 and 2005 in the dataset. The dataset lists the country of origin, referred to as the home-base country, for each group and includes information on each group's ideology, size, state sponsorship, and the number of allies with other terrorist groups. The BAAD has cross-sectional data, these variables being rather consistent over time.

The dataset is currently being expanded to code information longitudinally and include more variables. The new dataset will be released as the Big Allied and Dangerous, Version 2.0 (BAAD2). The BAAD2 includes variables related to counterterrorism efforts coded for each year between 1998 and 2007. The BAAD2 is currently not publically available, however, the counterterrorism data has been made available to the author.

Global Terrorism Database (GTD)

The Global Terrorism Database (GTD) is an event database that codes information on domestic and international terrorist attacks around the world from 1970 to 2011. The GTD is one of the most often cited terrorist incident databases (other incident databases include TWEED, ITERATE, RAND, PGIS, U.S. Dept. of State, RAND-MIPT, and WITS). ITERATE data has been used in many prior studies on terrorism but this database focuses solely on international terrorist attacks. The current study analyzes what factors predict whether terrorist groups conduct domestic and transnational attacks, so a dataset that includes both domestic and international incidents is required. The GTD is the most comprehensive and frequently used incident dataset that includes both domestic and international terrorist attacks (for thorough comparison of terrorist incident databases see LaFree, forthcoming). In total, the dataset includes over 107,000 cases. For each attack the GTD includes information on where and when the incident occurred, the weapons used, the target(s) of the attack, the number of fatalities, as well as the perpetrator (i.e. group name) when it is known. The data is collected via open-source research, the most common method of collecting data for terrorism research. Open-source research uses information reported by the media, government, and non-governmental sources (LaFree, 2010; LaFree & Dugan, 2007).

Quality of Government (QoG): Country data

Most of the information regarding country characteristics used in this project come from multiple datasets made available by the Quality of Governments (QoG) Institute at the University of Gothenburg in Sweden (Teorell, Charron, Dahlberg, Holmberg, Rothstein, Sundin & Svensson, 2013, p. 3). The data is described as a "pool of variables gathered from other original or secondary sources" (Teorell, et al., 2013, p. 3). The QoG Institute is primarily interested in research on good governance and has multiple datasets publically available for researchers. The QoG Standard Data is in two forms: cross-sectional and longitudinal. For the purposes of this study, cross-sectional variables need to be used. The researchers include the year represented by each cross-sectional variable. The target year for the available QoG cross-sectional dataset is 2009 or the closest year available. The current study addresses attacks between 1998 and 2007, so cross-sectional country-level variables from 2002-2003, the middle of the time period, is preferred. Variables were selected from either the cross-sectional dataset or the time-series dataset for the information available closest to the years 2002-2003. It is worthwhile to note that there were only very small differences in the variables selected across this time period for the countries used in this project.

Counterterrorism data

The BAAD2 provides group-specific longitudinally coded counterterrorism data. Legislated counterterrorism policies implemented to uniformly address terrorist groups operating in the countries boundaries are provided in the Global Counterterrorist Legislation Database (GCLD) and are gathered for the country-level data in this project. The GCLD is a cross-national database of more than 1,000 laws in 219 countries between 1850 and 2009 (Shor, 2011).

The current project expands on the longitudinal variables available in the BAAD2 dataset to include additional counterterrorism policies directed toward groups. The data was collected

and coded longitudinally for each group. Like most quantitative data collections on terrorism, the information derives from open-source data (see LaFree, 2010; LaFree et al., 2007). Specifically, this project extracted information from websites that collect media reports (e.g. Lexis-Nexis), academic resources (e.g. ProQuest), legal reports (e.g. Westlaw), watch-group reports (e.g. Human Rights Watch), and search engines on the internet (e.g. Google, Yahoo). Following the United States Extremist Crime Database (ECDB) protocol that builds off of Sageman (2008) and others, if conflicting information is found, the credibility of the source was evaluated to determine which answer is more accurate (Chermak et al., 2012; Freilich, Chermak, & Caspi, 2009). Research assistants, which included undergraduate as well as current and former master's students at John Jay College, went through training sessions to learn the variables, how to search for information, and how to code the data. Their work was reviewed throughout the process and all data collected by research assistants underwent final vetting and review.

Sample Description

This study looks at changes in violence over time; however, most terrorist groups are short-lived and conduct few attacks. To analyze the dynamic relationship between the group and the state, groups were selected that matched between the datasets that had at least two attacks and existed for at least two years between 1998 and 2007.[8] The final sample is 148 groups operating in 48 countries existing for a total of 1,240 years. The list of groups and countries are included in tables 2 and 3 and a graphic depiction of the countries included in the sample is available in figure 2.[9]

[8] The details for how groups were matched between the datasets are provided in Appendix C.
[9] The data is unbalanced, meaning the number of terrorist groups varies substantially across countries. Fortunately, multilevel modeling is equipped to model this type of data. Further description is provided in the Data Analysis section labeled *Distribution*.

Measures

As previously described, the data for this project consists of three units of analysis, or three levels. The first is the year, where the dependent or outcome variables are measured. The dependent variables are the number of terrorist attacks (i.e. number of attacks, the number and rate of fatalities for each year, number of attacks for specific targets, how many attacks used specific modes of attack, and number of domestic and transnational attacks) are recorded for each year. The second unit of analysis, level two, is the terrorist group. These terrorist groups are clustered within countries, which is the third unit of analysis, level three. A graphic depiction of how these units of analysis are related is provided in figure 3, which shows where the independent variables are located in the analysis.

Dependent Variables

The current study evaluates a series of dependent variables associated with the amount and type of violence a terrorist group conducts. The data on terrorist attacks derives from the Global Terrorism Database (GTD).

The first dependent variable is the number of attacks the group conducted in each year between 1998 and 2007. The sample restrictions limited the sample to groups who conduct at least two attacks in this time period. The total number of attacks per group throughout this time period range from two to 655. Roughly 19% of the sample has a total of two attacks in the time-span, while roughly 11% have more than 100 attacks in this duration. In a single year the number of attacks ranges from zero to 233.

The second dependent variable is the number of fatalities. Some groups intend to have significant fatalities while other groups do not intend to kill individuals, despite conducting many attacks (Asal & Rethemeyer, 2008b). Fatalities are measured in two ways: first, the number of

fatalities per year for each group, and second, the average number of fatalities per attack for each year for each group. These two measurements are used to try to account for the difference in intent.[10]

The target of attack is the third dependent variable. To evaluate targets, the number of attacks against each type of target in each year is evaluated. A series of analyses are run to determine if different independent variables predict the type of target. Specifically, this study compares targets derived from the GTD categorizations: civilians and private property, police/law enforcement, military, government, and businesses.[11] An attack may involve multiple targets. The GTD codes up to three possible targets for each attack so the target of an attack is not mutually exclusive. For this study, the attack for a target is included regardless of whether it is the first, second or third target.

The fourth dependent variable addresses the mode of terrorist attack. Like with targets, a series of analyses compares the number of attacks in each year using these modes of operation: assassination, armed assault, bomb/explosion, and suicide attack. A single attack may involve multiple modes of operation and the GTD includes variables to capture up to three modes of attack. Using the same format as for targeting, the number of attacks using each mode is included regardless of whether it was the first, second or third mode of attack involved. Like with targets, these categories are not mutually exclusive.

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[10] Note that this variable was calculated by dividing the total number of fatalities in the year by the number of attacks in that year. There are groups have zero attacks in a year, and therefore zero fatalities. This calculation produces an error when calculating the variable. A zero was inserted for these cases despite the complication of assimilating years with no attacks with groups that have attacks and did not have any fatalities. This is an acknowledged limitation and future research should aggregate the data for a more accurate comparison.

[11] A thorough description of these outcome variables is available in the GTD codebook that is publically available at the START website: http://www.start.umd.edu/gtd/downloads/Codebook.pdf. To clarify, the civilian and private property target refers to "attacks on individuals, the public in general or attacks in public areas including markets, commercial streets, busy intersections and pedestrian malls." This variable represents attacks that have indiscriminate targets.

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The last dependent variable refers to the location of terrorist attacks: whether domestic or transnational. These are separate count variables coded for the number of attacks in each year that occurred in the home-base country (domestic), and the number of attacks in each year that occurred abroad.[12] Analyses are run to compare what factors influence the number of attacks in the home-base country compared to the number of attacks in a foreign country or countries. The count of domestic attacks and transnational attacks may be conflated with the total number of attacks a group conducts in a year. The analysis would not differentiate the intent when evaluating, for example, a terrorist group that conducts zero domestic attacks but five transnational attacks, and a terrorist group that conducts 100 domestic attacks and 20 transnational attacks. To better gauge intent, dichotomous variables were developed for both domestic and transnational attacks where if the proportion of transnational attacks was 0.50 or more in a year it was coded 1, while if it was less than 0.5, then transnational attacks in that year were coded 0. Domestic attacks were coded 1 if the proportion of attacks in a year were 0.51 or more, and 0 if the proportion of attacks were less. The results of set of dependent variables is compared to the location deponent variables measured as a count.

Independent Variables

The descriptive statistics for the independent for each level of analysis and the dependent variables are presented in Appendix A.[13] The following sections elaborate on the data used at each level of analysis.

Level one: Counterterrorism policy variables

[12] Note that separate variables were included to list the separate countries attacked for the multiple membership random effects modeling analysis described later in this chapter.

[13] The descriptives statistics for the entire sample are in the appendix because the samples used for analysis differ after outliers were removed described in chapter 6.

The first level of analysis is the year, measured 1998-2007. Note that not all the groups exist for the entire 10 year span; some groups did not yet exist at the beginning of this duration, while others were no longer in operation in the later part of this time-span. The year was recoded to measure time, with 1998 being 0 and 2007 being 9 to properly measure growth curves.

The longitudinally coded counterterrorism variables are also included at level-one. The BAAD2 dataset includes a variable measuring leadership decapitation, the killing or arrest of a leader, in each year. The variable was recoded as a binary variable coded 1 = leader was arrested and/or killed, and 0 = leaders were not arrested and/or killed in that year. Similarly, a binary variable indicates if the country of origin's law enforcement was directed toward the group, and a binary variable indicates if the home-base country's military was used toward the group. A binary variable is coded 1 = international law enforcement and/or military is used toward the group, and 0 = there is no international law enforcement or military used to counter this group, in that year. This study recoded a variable indicating the overall counterterrorism approach taken against the group by both domestic and international sources. The variable included three types of approaches: "carrot/reward," "stick/punishment," or "mixed" strategies. This variable was separated into three binary variables with 1 indicating that counterterrorism strategy was in effect in that year.

As briefly described before, this project collected original longitudinal data on 10 types of counterterrorism tactics being used toward each group in each year.[14] I used three grants to pay research assistants and purchase research materials for this project. These grants include $5,000 for the Terrorism Research Award provided by the National Consortium for the Study of

[14] Note that efforts to find information for three counterterrorism variables (directed at each group in each year the group was in operation) were not consistent, so these variables were not included in this analysis. These include the expansion of stop and frisk policies, counterterrorist financing efforts, and target hardening efforts.

Terrorism and Responses to Terrorism (START) funded by the Department of Homeland Security, $3,600 from the Constant H. Jacquet Research Award, provided by the Religious Research Association, and $1,269 from the Doctoral Student Research Grant Program provided by the Graduate Center, CUNY. Data collection began in the fall 2012 semester and was completed at the end of the fall 2013 semester. The project included multiple research assistants, whose names are listed in the acknowledgements. I interviewed each research assistant candidate and once selected the research assistant went through training and trial coding sessions. All their work was vetted and reviewed to ensure accurate searching and coding was completed for each group in the dataset. The data collection details, codebook, search protocol, and training materials used for research assistants are in the appendices (Appendices C, D, E, F and G).

Research assistants were trained to find and code information on counterterrorist policies directed at each terrorist group. These counterterrorism tactics include: 1) issuing or maintaining a cease-fire, 2) implementing deradicalization or disengagement programs, 3) the use of torture, 4) the use of internment camps, 5) conducting mass arrests, 6) issuing or maintaining a curfew, and 7) establishing or maintaining check-points.

The first two variables supplement the "carrot" approach in the BAAD2 dataset to evaluate rewarding policies. Cease-fires are coded 1 if a formal or informal truce was issued by a country toward the group in that year.[15] The variable for deradicalization or disengagement programs is coded 1 if information is found on the use of such programs for members of the terrorist group in that year. The next two variables supplement the "stick" variable described above to evaluate policies associated with punishment. Torture is coded 1 when there is direct

[15] Note that the codebook also has a variable indicating whether the terrorist group issued or agreed to a cease-fire with the country. Although such agreements are often reciprocated, there are times when the two sides do not agree to the cease-fire. This study, however, only uses the variable indicating if a cease-fire was issued by a country to focus on actions directed toward the group.

reference to at least one terrorist group member being subjected to torture by a country in that year. Internment camps are coded 1 when it is stated that countries held group members captive without charges or due process as typically afforded to other criminals in the country in that year. The next variable, in conjunction with the leadership decapitation variable in the BAAD2 data, evaluates policies that change group structure or composition. Mass arrests are coded 1 if three or more terrorist group members were arrested at the same time in that year.[16] Lastly, two variables are included to evaluate how policies directed at influence group movement affect terrorist violence. Curfews are coded 1 if in that year a country issued a curfew as a result of the group's violence, or if a curfew was implemented in a location where the group is known to operate (e.g. curfews in Baghdad necessarily affected groups located there). Similarly, checkpoints are coded 1 if in that year there is reference to the group being stopped at a checkpoint, the group attacked a checkpoint, or checkpoints were known to be set up in areas where the group is known to operate.

Each counterterrorism tactic was coded longitudinally with a set of binary variables to indicate if the home-base country or a foreign country conducted the tactic toward the group in that year. If a foreign country did use a counterterrorism tactic toward the group, it was specified whether the foreign country used that tactic in the home-base country's borders or elsewhere. For this study, these variables are collapsed to form single variables for each counterterrorism measure where 1 = the tactic was used toward the group in that year, regardless of whether it was

[16] It was difficult to locate information that explicitly specified the number of individuals arrested. As a result, mass arrest was operationalized as the arrest of three or more individuals because the open-source literature frequently lacks details regarding the explicit number of terrorist group members arrested in an incident. Media reports, government documents, terrorism data sources (e.g. SATP), and NGO documents frequently mentioned a "few" or "many" group members being arrested. Restricting mass arrest to a larger number of group members being arrested would cause incidents with unknown number of arrestees to be excluded and the data may inaccurately be coded 0. The study includes three of more terrorists to be arrested to qualify as a mass arrest to be more accurate, though, arguably, too inclusive.

implemented by the home-base country or a foreign country, and 0 = the counterterrorism tactic was used toward the group in that year. In an effort to address the differing actors of counterterrorism measures directed at groups, this study includes the three counterterrorism control variables from the BAAD2 dataset previously described that indicate if domestic or international law enforcement or military were targeting the terrorist group.

Level two: Terrorist group trait variables

The second level of analysis is the terrorist group. A series of binary variables are included to capture the ideology of the group deriving from the BAAD data. Binary variables indicate if the group is a pure leftwing group, a pure ethnonationalist group, a religious group, a religious-ethnonationalist group, a group whose ideology contains an ethnonationalism, or "other" ideology. As described in prior chapters, the leftwing groups are those following a Marxist, Maoist and Leninist economic and social philosophy. Pure ethnonationalist groups seek to establish a new political order based, in part, on ethnic dominance and/or desires for ethnic homogeneity. Religious groups derive their ideology, at least in part, from their interpretation of a spiritual faith. Religious-ethnonationalist groups have both religious and ethnonationalist agendas. Some groups' ideology contains an ethnonationalism agenda but is also compounded with other ideologies. Those that do not also have a religious agenda, but are not purely ethnonationalist are coded as containing an ethnonationalist ideology. The "other" ideology includes groups with an anarchist, anti-globalist, racist, rightist, or environmentalist agenda (Asal & Rethemeyer, 2008b). Religious denominations were added for religious or religious-ethnonationalist groups. Specifically, groups were coded as belonging to an Islam, Judaism, or

Christian affiliation. Additionally, Christian groups were broken down into Catholic and non-Catholic groups.[17]

Additional variables from the BAAD1 dataset were included to assess the association between terrorist group traits' and group violence. Some variables are included to measure the group's resources. A binary variable indicates if the group has received financial support from a state. The size of the group is recoded 0 = 1-100 members, 1 = 100-1,000 members, and 2 = more than 1,000 members. The number of alliances the group has with other groups is coded ranging from 0 = no alliances, to 5 = a group has five or more alliances. Another binary variable indicates if the group ever controlled any territory. The BAAD dataset also has a variable for group age that is coded as the number of years since the group was founded until 12/31/2005.[18]

In addition to the counterterrorism variables coded for this study, original data was collected to code two group-level variables. The first indicates if the group is an ethnic and/or religious minority in the country of origin as a dichotomous variable: 1 = minority, 0 = not minority. The second variable was collected to indicate if the majority of group members are ex-patriots in the home-base country and is coded 1 = ex-patriot, 0 = not ex-patriot.

Level three: Country characteristic variables

The third unit of analysis is the country. Almost all of these variables come from the Quality of Governments (QoG) dataset, but the original source for these variables is also listed. To estimate the degree of political freedom, a dichotomous variable indicates if the country is a democracy (Cheibub, Gandhi and Vreeland, 2010). The Physical Integrity Rights Index is

[17] The Islam affiliation was provided by the BAAD1 dataset and the other religious affiliations were added from open-source searches, all of which is documented. Religious denominations, however, were not used in the analyses due to lack of variation across the dataset for all affiliations except Islam.

[18] The year the groups were founded range dramatically. The oldest group was founded in 1918 (age is coded 87), while there are some groups that were founded in 2005 (age is coded 1). The 25th percentile for group age is 5.25 years, while the 50th percentile is 11 years, and the 75th percentile is 29 years.

included to measure the degree to which a country values human rights. This is an index that includes measures of torture, extrajudicial killing, political imprisonment, and disappearance in a country. The measure ranges from 0 = "no government respect for these four rights" to 8 = "full government respect for these four rights" (Cingranelli & Richards, 2010). The Human Development Index score is included to measure the development in a country on three factors: life expectancy at birth, adult literacy rate and the ratio of enrolment in schools, and the GDP per capita in purchasing power parity (UNDP, 2013).[19]

Relatedly, there are two variables to measure how wealth influences group violence: the log of the GDP is a measure of each country's wealth (United Nations, 2013), and the GINI index which measures "the extent to which the distribution of income among individuals or households within an economy deviates from a perfectly equal distribution" (World Bank, 2013). Some countries have the GINI index data for numerous years, so this study uses the average of all the GINI index coefficients for all the years between 1998 and 2007.[20]

There are two continuous variables that measure heterogeneity in a country: the degree of ethnic fractionalization, and the degree of religious fractionalization (Alesina, Devleeschauwer, Easterly, & Kurlat, 2003). Fractionalization is operationalized as "probability that two randomly selected people from a given country will not share a certain characteristic, the higher the number the less probability of the two sharing that characteristic" (Alesina, et al., 2003: 158-159). Ethnicity incorporates racial and linguistic traits and in some areas ethnic diversity reflects

[19] The HDI is not used in the analyses because it is strongly correlated with other indicators included in the model.
[20] There are three countries missing the GINI index measure: Lebanon, Myanmar, and Saudi Arabia. Although the Global Peace Index (GPI) has GINI values for these countries, it does not have values for all the countries in this dataset (Institute for Economics and Peace, 2013). Rather than using the GPI as a substitute for these countries, the GINI index of neighboring countries with similar demographics and geography were used. The GINI index for Syria was used for Lebanon, Thailand for Myanmar, and Jordan for Saudi Arabia. Also note that multiple measures of poverty in each country were found (World Bank data), however there is no measure that has consistent data available for all the countries in this dataset in the time frame. Other poverty measures had missing values for a large proportion of the countries in this analysis, so this study includes only the GINI index and the GDP.

greater differences in race while in other areas diversity indicates differences primarily in language.[21] The data on religious fractionalization distinguishes 294 religions based on distinctions noted in the 2001 Encyclopedia Britannica.[22] These measures indicate differing forms of diversity that may have unique influences on terrorist violence.

There are six types of counterterrorism legislation collected for this study from the GCLD:

1) laws "sanctioning terrorist financing/funding and money laundering related to terrorist activities,"
2) laws providing "special/extended powers to courts, law enforcement agencies, or armed forces, while limiting the rights of terrorism suspects,"
3) laws creating "limitations, [or] censoring or banning of internet websites, TV programs, films, books, newspapers, and other media supporting terrorism,"
4) laws "sanctioning or banning countries, parties or organizations," "Amnesty/Pardon laws, and lighter punishments to repentant terrorists,"
5) laws "permitting interception of telecommunications (including wiretapping)" (Shor, 2011).

Each of these forms of legislation is coded as a binary variable where 1 indicates that form of legislation went into effect during the timespan of this study, 1998-2007, and 0 means this form of legislation was not in effect.[23]

[21] Language diversity has been used in studies as a measure of diversity, but this study opted to include measures of ethnic and religious heterogeneity because they are each associated with specific terrorist group ideologies. Ethnonationalist groups and religious terrorist groups distinguish themselves based on their ethnicity and/or religion, while there are few if any groups that solely identify with language.

[22]The article does not specify what religious faiths are included in the 294 religions identified in the data for this variable. Although it is unclear whether some variations of faith, such as Sufi Sunni and Salafist Sunni Muslims, would be distinguished, the sheer number of religious faiths suggest that more general differences in faith, such as Sunni and Shiite Muslims, would be differentiated.

[23] Due to lack of variability across countries for these counterterrorism legislation variables, only the counterterrorism legislation targeting terrorist financing is included in the analyses.

Control variables at the country level include population size, political stability, government effectiveness, and the ratio of the attacks conducted by unknown perpetrators. The first variable is the logged population of the country (Bolt & van Zanden, 2013). Measurements of political stability and government effectiveness are available for each country (Kaufmann, Kraay, & Mastruzzi, 2010). Political stability is a variable created by multiple indicators of people's perceptions that the ruling government "will be destabilized or overthrown by possibly unconstitutional and/or violent means" (Teorell, et al., 2013: 134). Government effectiveness measures people's perceptions of whether "the government [is]… able to produce and implement good policies and deliver public goods" (Teorell, et al., 2013: 135).[24] Additionally, a ratio of the number of attacks in the GTD with unknown perpetrators (for the entire time period in each country) to the number of attacks with known perpetrators was calculated. This ratio serves as a proxy measure for the ability of local law enforcement to deal with terrorism.

Data Reliability

The reliability of data from open-sources has two areas of concern: source reliability and inter-rater reliability. The GTD data on incidents that took place since 1998 was collected by research assistants at the National Consortium for the Study of Terrorism and Responses to Terrorism (START). The GTD provides the bibliographic information for multiple sources used to code for each terrorist incident since 1998. Terrorist incidents included in the GTD are reviewed by members of the START staff in efforts to ensure credible sources are used and information is accurately coded, increasing the reliability of the data. The GTD has missing values on some variables for terrorist incidents. In this study, incidents were individually

[24] The measures of political stability and government effectiveness were not included in the analyses due to concerns for multicollinearity.

reviewed if the data was missing values on variables of interest. Reviewing GTD data that was unclear or missing improves the quality of the data used in this study.

The BAAD datasets were created by researchers associated with START. The BAAD1 dataset quantified data from the Memorial Institute for the Prevention of Terrorism (MIPT) data. The BAAD1 referred to additional open-sources to confirm information and include additional data. Similarly, the BAAD2 data draws on open-sources with a list of databases, websites, and search engines for coders to use when collecting data. The open-source data collected for each terrorist organization is kept in a word document and coders met frequently to discuss questions and coding issues and review cases.

Following the research methods used for the BAAD data collection as well as training I received working on the U.S. Extremist Crime Database (ECDB; see Freilich, Chermak, Belli, Gruenewald, & Parkin, 2014), the data personally collected for this research project includes a word document for each terrorist group. In each word document notes were made highlighting the evidence found for a variable and indicating how the research assistant coded the information in the spreadsheet. Lab meetings were held frequently to identify areas of difficulty and to improve inter-rater reliability. Three areas of potential error were identified: finding information, interpreting information, and coding information. The search protocol shown in Appendix G improved consistency and the identification of relevant information. After research assistants completed a group they provided me with the word document and spreadsheet. I vetted all of the information coded to ensure the sources used were reliable and the coding was accurate. In addition to verifying all of the values in the data my research assistants collected, I also ran additional searches for information for all the variables where the coders had not found any

information. Concerns of inter-rater reliability are mitigated by personally verifying each of the values in the data collected for this project.

Data Analysis

Multivariate analysis is used to statistically evaluate the relationship between the dependent variable and one or more independent variables. Ordinary Least Squares (OLS) is used in multivariate analysis to determine the best fitting regression line by minimizing error. OLS, however, requires that the sample be independent. If the groups are not independent then there may be correlated error, which may underestimate the standard error. Type I error, the false rejection of the null hypothesis, is increased if the OLS assumption of independence is violated.

Terrorist groups are located, or nested, within countries, such that they are not independent. Therefore, proper analysis modeling nested data is required. Two-level and three-level nested models are very common in literature evaluating education (Shin, 2011; See also Raudenbush & Bryk, 2002). To the best of the researcher's knowledge there is only a single study published that uses nested models related to terrorism.[25] The current study evaluates trends in violence over time. To accomplish this goal, the current study uses the methodology employed by researchers to study changes over time among students that are nested within schools.

Longitudinal Multilevel Modeling

Multilevel modeling includes additional error terms for the influence of the country at the macro-level. Multilevel modeling uses Bayesian estimation to derive the statistical associations between the dependent variable and the independent variables on multiple levels. Multilevel modeling allows one to evaluate the compositional, or contextual, effects. Compositional effects are when a level-two variable (group trait) or level-three variable (country characteristic) has a

[25] The only published study using multilevel modeling with terrorism data evaluated court processing of indicted terrorists in the United States nested within different U.S. District Courts (Johnson, 2012).

relationship with the dependent variable, controlling for the effects of other predictor variables. Although terrorist groups are clearly nested within countries, the intra-class correlation coefficient (ICC) is calculated to determine the proportion of variation explained by the terrorist group traits and the proportion of variation explained between countries (Mass & Hox, 2005; Meyers & Beretvas, 2006).

This study uses a three-level multilevel data structure evaluating trends in violence over time. Level-one represents the repeated-measures (number of attacks each year) over time which are nested within terrorist groups (level-two), and the terrorist groups are clustered within countries (level-three). The unconditional three-level conventional multilevel model may be expressed mathematically as follows for level-one (time) using Raudenbush and Bryk's (2002) notation:

$$Y_{tij} = \pi_{0ij} + \pi_{1ij} a_{1ij} + e_{tij} \quad (1)$$

where Y_{nj} is the number of attacks at time t for group i in country j, a_{tij} depicts the measurement occasion at time t. The zero time point in this study is the year 1998. π_{0ij} is the number of attacks for terrorist group i in country j at $a_{tij} = 0$, and π_{1ij} is the linear growth rate for terrorist group i in country j over time, and e_{tij} is the terrorist group-level residual.

The equations for level-two, the terrorist groups are:

$$\begin{cases} \pi_{0ij} = \beta_{00j} + r_{0ij} \\ \pi_{1ij} = \beta_{10j} + r_{1ij} \end{cases} \quad (2)$$

where β_{00j} is the estimated mean number of attacks for terrorist groups in country j when $a_{tij} = 0$, r_{0ij} is the terrorist-group residual term for π_{0ij}. The level-two residuals are assumed to be normally distributed with means of zero with the following covariance structure:

$$\text{cov}\begin{bmatrix} r_{0ij} \\ r_{1ij} \end{bmatrix} = \begin{bmatrix} \tau_{r00} & \tau_{r01} \\ \tau_{r10} & \tau_{r11} \end{bmatrix} \quad (3)$$

The equations for level-three, the countries are:

$$\begin{cases}\beta_{00j} = \gamma_{000} + u_{00j} \\ \beta_{10j} = \gamma_{100} + u_{10j}\end{cases} \quad (4)$$

Where γ_{000} is the mean of the number of attacks across countries when $a_{tij} = 0$, and u_{00j} is the residual for the intercept for country j. γ_{100} is the average linear growth rate across countries, and u_{10j} is the slope residual term for country j with the covariance structure:

$$\text{cov}\begin{bmatrix}u_{00j} \\ u_{10j}\end{bmatrix} = \begin{bmatrix}\tau_{u00}\ \tau_{u01} \\ \tau_{u10}\ \tau_{u11}\end{bmatrix} \quad (5)$$

The three-level multilevel model allows the violence trajectory to be evaluated as a function of group characteristics and country characteristics, which are entered into the equations creating a conditional model and testing these predictors to see if they are statistically significant. Longitudinal multilevel modeling allows time-related level-one predictors to be entered into the model, which would be the longitudinally coded counterterrorism variables (Tabachnick & Fidell, 2007: 814). The conditional level-one equation with a single variable depicted in the three-level multilevel model is:

$$Y_{nj} = \pi_{0ij} + \pi_{1y}a_{nj} + \pi_{2ij}(CounterterrorismVariable) + e_{nj} \quad (6)$$

The level-two conditional equations with a single variable depicted are:

$$\begin{cases}\pi_{0ij} = \beta_{00j} + \beta_{01j}(Group\ Trait\ X)_{ij} + r_{0ij} \\ \pi_{1ij} = \beta_{10j} + \beta_{11j}(Group\ Trait\ Y)_{ij} + r_{1ij} \\ \pi_{2ij} = \beta_{20j} + r_{2ij}\end{cases} \quad (7)$$

And the level-three conditional equations are:

$$\begin{cases}\beta_{00j} = \gamma_{000} + u_{00j} \\ \beta_{10j} = \gamma_{010} \\ \beta_{10j} = \gamma_{100} + \gamma_{101}(Country\ Trait\ Z)_j + u_{10j} \\ \beta_{11j} = \gamma_{110}\end{cases} \quad (8)$$

In these equations γ_{000} is the intercept for the outcome, the predicted value for the number of attacks when $a_{tij} = 0$ and all the predictors are zero. γ_{001} is the effect of the country-level variable on the intercept. γ_{100} is the linear slope for the number of attacks conducted, controlling for the predictor variables, while γ_{110} is the fixed effect of the terrorist group trait (Y variable above) on the slope. The residual error terms account for variability that remains unexplained for the intercept (u_{00j}) and slope (u_{10j}) after the inclusion of the predictors (Raudenbush and Bryk, 2002).

Cross-level Interactions

Cross-level interactions can be assessed using multilevel models to test moderation hypotheses. A cross-level interaction is when an independent variable at level-one (e.g. counterterrorism policy) has differing effects on a dependent variable (e.g. number of attacks) in differing types of terrorist groups (e.g. religious group). Cross-level interactions can also test moderation hypotheses between level-two and level-three. For example, these equations can evaluate if a level-two variable (e.g. ethnonationalist group) has differing effects on the dependent variable in different macro-level contexts (e.g. ethnic heterogeneity).[26] Some of the stated moderation hypotheses must be tested using cross-level interactions. To test how a variable at level-two conditions the effect of a variable at level-one the following equation is used:

$$\pi_{2ij} = \beta_{10j} + \beta_{11j}(Terrorist\ Group\ Trait) + r_{1ij} \quad (9)$$

π_{1ij} refers to the level-one variable, counterterrorism policy, applied to group *i* in country *j*. β_{10j} refers to the average slope due to that counterterrorism policy, while β_{11j} is the effect of the

[26] For examples of cross-level interaction equations used to test moderation hypotheses see Boyd & Chung (2012) and Adamczyk & Pitt (2009).

group-level variable, on the level-one variable's regression slope, controlling for all other predictors. r_{1ij} is the error-term.

Similarly, cross-level equations are used to evaluate how a level-three variable moderates the effect of a level-two variable on the dependent variable. The equation used is:

$$\beta_{10j} = \gamma_{100} + \gamma_{110}(Country\ Characteristic) + u_{10j} \quad (10)$$

In this equation β_{10j} is the effect of the level-two terrorist group predictor in country j. γ_{100} refers to the average slope due to the level-two predictor, while γ_{110} is the effect of country-level variable on the group-level variable's regression slope, controlling for all other predictors. u_{10j} is the error-term.

Distribution

As previously noted, the data used in this analysis is unbalanced, meaning the number of terrorist groups varies substantially across countries. Fortunately, multilevel modeling is able to operate with unbalanced data. Tabachnick and Fidell (2007) state that "unequal sample sizes at each of the levels poses no problems and are, indeed, expected" (p. 788). The restricted maximum likelihood estimation partially addresses unbalanced models and is used in these analyses (Raudenbush and Bryk, 2002; see also Tabachnick and Fidell, 2007: 788). The power necessary to detect effects, particularly for cross-level effects, is related to the size of the sample at each level of analysis. When the first level sample sizes "are not too small" and level-two has at least twenty or more subjects, then there should be sufficient power (Tabachnick & Fidell, 2007: 788). Fortunately, in this study the sample sizes are more than adequate for suitable statistical power.

The dependent variables used in this dataset are count variables indicating the number of attacks in each year. It is necessary to note that some groups have zero attacks in a year or series

of years. Arguably, these zeroes should not be ignored because they can be very meaningful. Economists have noted that zero expenses are important to model, and Shin (2011) notes the importance of including zero scores when evaluating education growth trajectories. When including the years when a group was not violent, however, the outcome variables violate linear regression assumptions that also underlie multilevel modeling. Specifically, these outcome variables are skewed to the right with a mode of zero and the number of attacks is over dispersed (e.g. for total attacks Mean = 4.52, S.D. = 14.05). The histograms for each dependent variable are provided in Figure 5. To properly model the data and be consistent with work on skewed data that is over dispersed in multilevel modeling, this study uses a Poisson distribution that accounts for over dispersion, the zero inflated Poisson (ZIP) model (Shin, 2011).[27] Note that analysis was completed for each dependent variable with the full dataset as well as a dataset that removed the outliers (conservatively identified by removing years, cases at level-one, with the dependent variable count exceeding three standard deviations above the mean). The intention of this research is to analyze trends and patterns, so the results of the analysis with the full dataset are compared to the smaller samples without the outliers.[28]

The terrorist groups in the model exist for different lengths of time and therefore some groups are not evaluated for the entire ten year timespan. Longitudinal multilevel models often have the same number of observations among subjects when evaluating growth curves; however, "missing values can be tolerated in repeated-measures analysis" using multilevel modeling (Tabachnick & Fidell, 2007: 788). Other forms of statistical analyses, such as repeated-measures

[27] Allison (2012) argues that the negative binomial model may be preferable to the ZIP because it is easier to estimate and interpret. ZIP was used in this analysis, however, because the negative binomial distribution is not available in the statistical software package (HLM) used to conduct the analyses.
[28] The differences between the models with the full dataset and the datasets with the outliers removed are compared and results are reported using the smaller datasets due to the different results produced when outliers are included.

ANOVA, require complete data for the repeated measure outcome variable, but this is not a limitation with the methodology employed for this study. Another advantage of longitudinal multilevel modeling is that it enables one to evaluate the terrorist group differences in patterns of violence. This methodology makes it possible to evaluate whether there are differences between terrorist groups in their average number of attacks and/or in their pattern of attacks over time (Tabachnick & Fidell, 2007).

Additionally, most growth curve models are used to evaluate students' achievement over years, which typically progresses in a positive, linear direction. The number of attacks a group conducts may not follow this trajectory. In fact, few groups have a steady increase or decrease in the number of attacks they conduct (see Graph 1 of group violence over time). Longitudinal multilevel modeling, however, has been used to model data that shows students with increasing, decreasing, and fluctuating scores over time (Shin, 2011).

Multiple Membership Random Effects Modeling (MMREM)

Multilevel modeling assumes single-membership among terrorist groups at level-one. More specifically, terrorist groups are assumed to exist only within one country. Many terrorist groups, however, operate within multiple countries and conduct transnational attacks (see figure 4), which would suggest that multilevel modeling would not be appropriate for analysis. Fortunately, multiple membership random effects modeling (MMREM) can be used to properly model the influence of multiple countries using MLwiN software. This study compares modeling terrorist group behavior in relation to the country of origin to modeling group behavior to each country in which the group has acted. MMREM enables one to weight each macro-level (country) to account for the amount of influence each country should have on the group's behavior. The weights must all add to one. The weighting matrix is provided in Appendix B.

The level-one and level-two equations are the same when modeling with MMREM. The equations for modeling multiple level-three units using MMREM are:

$$\begin{cases} \beta_{00\{j\}} = \gamma_{000} + u_{00j} \\ \beta_{10\{j\}} = \gamma_{010} \\ \beta_{10\{j\}} = \gamma_{100} + \gamma_{101} \sum_{h\in\{j\}} w_{ih} \, (Country\ Trait\ Z)_h + \sum_{h\in\{j\}} w_{ih} \, u_{10j} \\ \beta_{11\{j\}} = \gamma_{110} \end{cases}$$

(11)

In these equations *i* represents the terrorist group that operated in a set of countries, $\{j\}$. As stated, the weights for each country must sum to one, such that $\sum_{h\in\{j\}} w_{ih} = 1$ (Beretvas, 2010). The variance for the terrorist group, $Y_{i\{j\}}$ is partitioned to the terrorist group ($e_{i\{j\}}$) and the set of countries ($\sum_{h\in\{j\}} w_{ih} \, u_{0j}$).

Analysis for the number of attacks a group conducts in a year will be completed with MMREM to compare to the statistical that only includes the home-base country, which addresses the fifth aim of this research. The following chapter provides on the results of this study.

CHAPTER 6

RESULTS

The current chapter presents the results of the analyses evaluating what counterterrorism policies, group traits, and country characteristics influence terrorist violence. The chapter begins by discussing the relationships between variables collected for the analyses, followed by a discussion of what variables are included in the final data. This is followed by a discussion of how outliers have an undue influence on the data results and how the final samples for each outcome variable are created. The intraclass correlation for each form of terrorist violence is evaluated to determine the proportion of variance at each level of analysis. After this description of the data, the results for each aim and hypothesis are presented.

Correlations

It is necessary to evaluate correlations between variables to ensure variables are measuring distinct concepts. If a model has multicollinearity, or the correlation of two or more predictor variables in a regression, the results will not accurately reflect the relationship between the variables and the outcome. Correlations are evaluated for each level of analysis: the longitudinal variables measured for each year at level one, the terrorist group at level two, and the country at level three. Correlations between the dependent variables and the level one (the year level) longitudinal counterterrorism variables are provided in table 4, and the correlations between the longitudinal variables at level one are provided in table 5. There are significant correlations between some variables, as noted in the tables, but the relationships are all below 0.60 suggesting multicollinearity is not a concern for these variables. The correlations between group traits at level two (the terrorist group level) are in table 6. Ethnonationalist groups are

significantly correlated with minority groups (r = 0.45), but the strength of the relationship does not surpass the threshold for concerns of multicollinearity.

Table 7 provides the correlations of the country variables at level three (the country level). There are significantly correlated predictors that suggest these variables may measure similar and related concepts. For example, the Human Development Index is significantly correlated with Gross Domestic Product (GDP) (r = 0.72), democracy (r = 0.55), government effectiveness (r = 0.81), government stability (r = 0.72), and the Physical Integrity Rights Index (r = 0.54), while being negatively correlated with ethnic fractionalization (r = -0.64). As described in the next section, some country variables are excluded from the analyses because the strong, significant correlations between variables suggest multicollinearity would have undue influence on the analysis.[29]

Samples for analyses

Variables included in analyses

Due to multicollinearity concerns the final group of variables analyzed for each dependent variable is reduced from all of those gathered for this project. For consistency and comparison across models the HDI, government stability, the government effectiveness measures are not included in the analyses at level three (the country level). The HDI is highly correlated with multiple variables at the country level because this measure captures economic conditions in a country as well as factors associated with health and livelihood. Similarly, the measures of government stability and effectiveness are related to multiple country characteristics. This study seeks to evaluate the unique influence of these related, but distinct aspects of a country so these variables were removed so that other variables measuring related, but distinct concepts can

[29] Note that bivariate correlations between variables across levels 1, 2 and 3 were also evaluated, but none of these relationships showed concern for multicollinearity.

remain in the analyses. The counterterrorism legislation variables, except for legislation to stop terrorist financing, exist in less than 15% of the countries and are excluded to maintain a parsimonious model because these variables are not related to direct hypotheses. Only counterterrorism financing legislation, which is in 52% of the countries in the sample, is included in the models at the country level.

Similarly, at level two (the group level) the specific religious affiliations are not differentiated as sub-ideologies because the numbers are too few for interpretation. At level one (the year level) the counterterrorism approach that includes both "carrot" and "stick" methods (i.e. mixed) is not included because it complicates interpretation by including both punitive and rewarding policies. With these changes the final models presented include at level one (the year level): time, the "carrot" approach, deradicalization, ceasefire, the "stick" approach, torture, internment, leadership decapitation, mass arrest, curfew, checkpoint, domestic law enforcement, domestic military, and international law enforcement/military. At level two (the terrorist group level) the final models include: pure ethnonationalist, religious, religious-ethnonationalist, "contains ethnonationalism," leftwing, and "other" ideology, as well as minority status, ex-patriot, state sponsorship, group age, territorial control, number of alliances, and group size variables. And at level three (the country level) the final models include: the GDP, the GINI index, democracy, ethnic and religious fractionalization, the Physical Rights Integrity index, the ratio of attacks by unknown perpetrators, and the population size. To ensure robust results, separate models were run adding in variables step-wise for each level of analysis to determine if results (i.e. significant predictors) were consistent with the addition of more variables. For the sake of brevity, unless there was a dramatic change in the results when adding variables to the

model, the results for the full model that includes all of the variables are provided in the corresponding tables and reported in the following discussion.

Cases included in analyses: The exclusion of outliers

Before conducting the analysis, it is necessary to determine if there are outliers, or extreme cases in the sample, that may unduly effect the results. As described in the previous chapter, the dependent variables are all count variables that are skewed to the right.[30] A judgment was made to identify the outlier cases at level one, the years, and run the analysis excluding these cases and compare the results to the same analysis conducted with the full dataset. Another option would be to remove the terrorist groups (at level two) that were perpetrators of the outlier years. This idea was rejected because each group that has years removed because they are outliers also has years that did not surpass the outlier threshold. Thus, despite the samples being reduced where outliers are excluded, the number of terrorist groups in these sub-samples remained 148 terrorist groups at level two, within 48 countries at level three (the country level), across all the dependent variables being analyzed. Graph 2 depicts the percentage of each ideology among the 148 terrorist groups in this sample.

The Windsoring technique was used to calculate the unique outlier threshold for each outcome variable. This method identifies outliers as cases that are more than three standard deviations above the mean. A decision was made to listwise remove the outliers identified for each model. This means that the outliers for one dependent variable are excluded for that sample, but may not be outliers for another dependent variable and are therefore included in the analysis for the second dependent variable. Listwise deletion for each model means that the outlier cases are removed to form separate and unique samples for each dependent variable. The other option

[30] There are two binary dependent variables for domestic and transnational attacks in the analysis that use a logistic regression and have no outliers.

is to listwise delete the outliers from the full sample to produce one sample for the evaluation of all the dependent variables. Although this method of deletion is often preferred for comparing effect size of the results across outcome variables, the deletion of outliers per model was selected because most of the dependent variables have exceptionally low base-rates. Low base-rates means that there are few attacks of each type (e.g. civilian targets, business targets, armed assaults) in a year for each group. Listwise deletion across the models would remove cases (i.e. level one unit of analysis, years) that exceed the outlier threshold for one variable (e.g. Al Qa'ida in 2001 for fatalities), but do not cross the outlier threshold for another variable (e.g. Al Qa'ida in 2001 for bombings). The decision was made to delete cases separately for each model so that the years deleted would be specific for that dependent variable and maximize the number of cases in the analysis for each dependent variable.

The concern with deleting different cases across models is that each dependent variable has a different sample size, which complicates making comparisons of results across outcome variables (e.g. comparing the effect of leadership decapitation for the number of attacks and for the number of fatalities). This study is not be able to compare the direct effect size of independent variables across outcomes because they have different samples. In fact, comparing which variables have significant effects across samples can be complicated because the statistical significance of a variable is impacted by the number of cases (i.e. years, groups, countries) in a sample (e.g. smaller samples are less able to detect significant results). In this study, however, the samples created after deleting the unique outliers for each outcome variable are very similar in size, ranging from 1,212 level one units (years) for targeting businesses, to 1,231 for the rate of fatalities. The small differences in the number of units at level one suggest that concerns of comparing the significant variables results across models are limited. As noted, this method of

deletion maintained the same number of groups and countries which helps support the claim that comparisons can be made across samples. The choice between deleting outliers for each model or across models posed a choice between modeling the data so that thorough statistical comparison can be made (i.e. listwise deletion of outliers across models) or modeling the data to produce the most accurate results for each dependent variable (i.e. deletion of outliers separately for each model). Due to the ability to make general comparisons of independent variables across models created with samples of very similar size, this study chose to delete outliers separately for each outcome variable.

The details of each sample is provided in table 8. The percentage of cases that are outliers do not exceed 2.26% across the dependent variables, and as previously noted, the number of groups (level two) and countries (level three) remain the same for each dataset as well as the full sample that included outliers. The outliers are very few years being eliminated for each outcome variable that may have dramatic effects on the analyses. Because the intention of this project is to evaluate trends and patterns of terrorism at large the following results are taken from the smaller samples that do not include outliers.

Before proceeding into a discussion of the results, it is worthwhile to point out that the hypotheses generated for this project derive from the prior literature on terrorism. As previously discussed, a great deal of the literature consists of case studies and focused analysis of specific groups or locations. What is important to note is that the incidents that get the most attention, among the public and academics alike, are the outliers; unique groups that last a long time (e.g. IRA, Shining Path, Tamil Tigers (LTTE)), remarkable incidents (e.g. September 11th, 2001, Oklahoma City bombing), and locations of longstanding conflict (e.g. Israel, Kashmir, Colombia). The focus on these extreme cases is perfectly reasonable and by no means does this

study mean to discredit such efforts; however, as a result the theories and assumed relationships behind acts of terrorism are often based on these extreme cases and may not account for the general trends in terrorism. This is an important caveat for the discussion of the results that follow. The hypothesized relationships may not be supported in part because these relationships are predominant among the outliers, but not as a general trend in terrorism.

Additional descriptive statistics were run to show how terrorist group ideologies are associated with the dependent variables. These descriptive statistics are provided for both the full sample and each of the samples excluding the outliers to evaluate how excluding the outliers changes the data.

Descriptive statistics

The descriptive statistics for the full sample are in Appendix A, and the descriptive statistics for the samples used in analyses are provided in tables 9-10. Table 9 provides the details for variables at level one (the year level) for each outcome variable. Table 10 provides the level two (the group level) and level three (the country level) descriptive statistics used for the analyses of all the dependent variables. Note that the sample sizes at level one (the year level) differ, but the descriptives for the variables are almost the same across all outcomes. The similarity of the data in the samples provides further support for being able to make comparisons of significant findings despite different samples sizes.

Additional descriptive statistics are provided to show the average for each outcome variable for the different terrorist group ideologies for both the full sample and for the samples excluding the outliers.[31] Table 11 shows that each ideological category has a different number of

[31] As described in the study below, four outcome variables (police targets, military targets, suicide attacks, and assassination) were unable to be analyzed using multilevel modeling, so the descriptive statistics comparing the ideological groups for these dependent variables are not included in this section.

years in the full sample, which totals 1,240 years, as well as the number of years corresponding with each terrorist group ideology in the samples excluding outliers.

Comparing the mean for the outcome variables for the different ideologies shows that including the outliers would unduly affect the analysis. In the full dataset the religious groups have the largest average number of attacks in a year (M = 6.73) and the largest maximum value (Max=232). Leftwing and then "contain ethnonationalism" groups follow closely with the average number of attacks in a year (M =5.97 and M =5.61, respectively). The dataset that excludes the outliers reduces the number of religious groups and leftwing groups by 6 years each, "contains ethnonationalism" groups by 4 years, and religious-ethnonationalist groups by 3 years. The maximum number of attacks in a year is 46, which is the outlier threshold. In this sample four ideological groups have a maximum of 45 or 46 attacks in a year (religious, leftwing, religious-ethnonationalist, and "contains ethnonationalism"). In this sample the leftwing groups have the largest average number of attacks in a year (M =4.05), followed by "contains ethnonationalism" (M =4.10), religious ethnonationalist (M =3.07) and religious (M =2.82). The difference between datasets in the average number of attacks shows that the religious group's association with more attacks is really magnified by only 6 years in the entire sample. In contrast, leftwing and "contains ethnonationalism" groups maintain their standing in relation to other groups for this dependent variable, the number of attacks in a year.

Compared to the other ideological groups, religious terrorist groups have higher averages per year for the number of fatalities and rate of fatalities per attack, both with and without the outliers. The results show that religious groups have the largest number of fatalities in a year: 2,995 (i.e. September 11th attack). When the outliers are removed, religious groups no longer have the largest maximum number of fatalities in a year, but they retain the largest average

number of fatalities in a year. Religious groups similarly maintain the largest average rate of fatalities per attack in both the samples with and without outliers.

The descriptive statistics for the targets of attacks show low-base rates in the full sample. In the full sample the maximum number of attacks targeting civilians in a year is 70, conducted by a "contains ethnonationalism" group. Interestingly, the religious groups have the largest average number of attacks targeting civilians in a year (M =2.02), followed by "contains ethnonationalism" (M =1.82). The sample that excludes the outliers shows that "contains ethnonationalism" groups now have the largest mean (M =1.10) followed by the religious groups (M =1.02). These differences show the large influence of the 6 years belonging to religious groups that were excluded as outliers. Similarly, religious groups have the largest average number of attacks targeting the government in the full dataset (M =1.05), but when the outliers (6 years associated with religious groups) are excluded, both "contains ethnonationalism" and leftwing groups surpass the average for religious groups (M =0.49, M =0.39, M =0.22, respectively). The average number of attacks targeting businesses in a year is largest for leftwing groups in the full dataset (M =0.69), while in the reduced sample "other" groups has the largest average attacks toward businesses (M =0.34), followed by leftwing groups (M =0.25).

The results of these descriptive statistics for mode of attack show that excluding the few outlier years dramatically affect the relationship between ideological groups and the average number of attacks using bombs or explosives, and armed assaults. For example, in the full dataset religious groups have the largest average number of bomb attacks in a year (M =2.95) followed by "contains ethnonationalism" (M =2.93), and leftwing groups (M =2.01). After removing the outliers, the "contains ethnonationalism" group had the largest average number of bombings in a year (M =1.62), followed by religious-ethnonationalist (M =1.27), leftwing (M

=1.25), and then religious groups (*M* =1.06). The results show that the maximum number of bombings in a year for religious groups is only 17 in the dataset that excludes outliers, while it is 101 in the full dataset. This suggests that the association between religious groups and bombings, as seen in the descriptives for the full dataset, are dramatically influenced by a few outliers.

Similarly, the descriptives for the mode of attack show that religious groups have the largest average number of armed assaults in a year (*M* =2.53) followed by leftwing and "contains ethnonationalism" groups (*M* =1.96, *M* =1.73, respectively). After excluding the outliers leftwing groups have the largest mean (*M* =1.25), followed by "contains ethnonationalism" and then religious-ethnonationalist groups (*M* =1.03, *M* =0.88, respectively). The changes in the data suggest, again, that few years of violence that are outliers significantly influence the relationships between ideological categories and the outcome variables.

Similarly, comparing the descriptive statistics for the full sample and the samples excluding the outliers show that outliers influence the association between ideology and the location of attack. In the full sample religious groups have the largest average number of domestic attacks in a year (*M* =6.06), yet when the outliers are removed leftwing groups and "contains ethnonationalism" groups have higher averages for domestic attacks (*M* =3.84, *M* =3.58, respectively). Transnational attacks do not appear to be as strongly influenced by outliers, with religious-ethnonationalist groups having a larger average number of transnational attacks in a year in the full sample and the sample excluding outliers.

As stated in the discussion of variables in chapter 5, distinguishing intent for the location of attack using the count of domestic and transnational incidents may be confounded by the total number of attacks a group conducts in a year. Binary variables were created to indicate if the majority of attacks in that year took place in the home-base country (i.e. domestic) or in other

countries (i.e. transnational). The outcome variables are binary, so there are no outliers to exclude in this analysis. The results show that leftwing groups have the largest mean for the proportion of domestic attacks in a year (*M* =0.52), followed by "contains ethnonationalism" (*M* =0.46), and "Other" ideology (*M* =0.42). In contrast, the transnational attacks are most common with religious groups (*M* =0.09), followed by "contains ethnonationalism" (*M* =0.07), and pure ethnonationalist groups (*M* =0.04). The results suggest that the "contain ethnonationalism" groups may have conflicting secondary ideologies that influence how these groups are associated with a preference for both domestic and transnational attacks.

The descriptive statistics, in conjunction with the outlier results previously presented, support the decision to report analysis completed with the samples that do not include outliers. Excluding the outliers the sample sizes for each dependent variables are:

1) Number of attacks: 1,221 years
2) Number of fatalities: 1,228 years
3) Rate of fatalities per attack: 1,231 years
4) Number of attacks targeting civilians: 1,213 years
5) Number of attacks targeting government: 1,222 years
6) Number of attacks targeting business: 1,212 years
7) Number of bombing attacks: 1,213 years
8) Number of armed assault attacks: 1,219 years
9) Number of domestic attacks: 1,219 years
10) Number of transnational attacks: 1,214 years

Though information provided in these descriptive statistics tables shows relationships between group ideology and aspects of terrorist attacks, inferential statistics are used to evaluate

how multiple factors (e.g. counterterrorism policies, group traits, country characteristics) contribute to explaining terrorist violence. Before reporting the results, the power analysis and intraclass correlations for each dependent variable are assessed.

Power analysis

The value of statistical analysis is dependent upon the ability to detect accurate results. Statistical power is the probability of rejecting a false null hypothesis (i.e. the likelihood of calculating findings that support your hypothesis). Power is measured as 1-β, where β is the probability of a type two error. A type II error is when a false null hypothesis is not rejected, which often means the study does not have a large enough N to detect significant relationships between variables. In comparison, a type I error is when a true null hypothesis is rejected. The probability of a type I error is determined by the selected alpha. This study selected 0.05 as the α, which is the level of risk for falsely reject the null hypothesis. A 0.05 α is commonly used in statistical design. The Optimal Design Plus Empirical Evidence software to calculate power for multilevel modeling was used to determine if this study has enough power to detect significant effects. Looking at the repeated measures power versus number of clusters, this study has at least 90% power with a sample of 148 terrorist groups at level two (the group level) regardless of the number of years for each group included at level one (the year level). Similarly, the power at level three (the country level) is likely above 80% with 48 countries in the sample, though it is difficult to ascertain due to the unbalanced data (i.e. different number of groups/country).

The power results suggest that despite different sample sizes across outcome variables, each model should be able to accurately produce results. The power analysis provides support that a comparison of what variables are significant for different outcome variables can be safely made.

Intraclass Correlations

When conducting analysis it is necessary to determine if the data is clustered to ensure that the analysis is being properly conducted. In this study, terrorist violence likely differs among terrorist groups, and the terrorist groups operating in the same country are likely similarly influenced and therefore clustered within countries. The intraclass correlation (ICC) is used to measure the degree of similarity in grouped data. The ICC calculates the proportion of variance, or the amount of similarity, between groups. This measurement indicates if the data is clustered by level two units and is often used to determine if multilevel modeling is necessary. In this study, the ICC is used to evaluate the similarity among terrorist groups (i.e. the proportion of variance explained at level two), and to evaluate the similarity between terrorist groups across countries (i.e. the proportion of variance explained at level three).

The ICC is calculated for each dependent variable using the unconditional model, which does not include any independent variables. There are two ICC calculations for a three-level longitudinal model. The first calculates the proportion of variance in the dependent variable that is not due to the passage of time, but is explained by the terrorist group. This ICC calculation shows the similarity of behavior across the years for the same terrorist group. This ICC is calculated using the formula (ICPSR, 2013):

$$\mathrm{ICC_{L2}} = \frac{Between - Terror\ Group}{Total} = \frac{\mathrm{L3 + L2}}{\mathrm{L3 + L2 + L1}} = \frac{\tau^2_{V_{00}} + \tau^2_{U_0}}{\tau^2_{V_{00}} + \tau^2_{U_0} + \sigma^2_e}$$

The second ICC calculation assesses the proportion of the total variance in the dependent variable that is between countries. This measurement shows how similar groups are in the same country and is calculated using the formula:

$$\mathrm{ICC_{L3}} = \frac{Between - Country}{Between - Terror\ Group} = \frac{\mathrm{L3}}{\mathrm{L3 + L2}} = \frac{\tau^2_{V_{00}}}{\tau^2_{V_{00}} + \tau^2_{U_0}}$$

The ICC_{L2} and ICC_{L3} for each dependent variable is provided in table 12.[32] The results show that the largest proportion of variance is explained between groups for the number of attacks (19.65%), targets (civilian, 52.33%; government, 57.42%, and business, 70.48%), and mode of attack outcomes (bomb, 34.49%; armed assault, 57.81%). In contrast, the largest proportion of variance for fatalities is explained between countries (number of fatalities, 57.66%; rate, 73.41%). This suggests the country-level variables may have more significant impact for fatalities than for other forms of terrorist violence. Large ICC_{L2} values indicate consistency over time. Outcome variables with low base rates (i.e. many years with zero values) are likely to have high consistency, which explains why the percentages are so large for some outcome variables. Some outcome variables may not be evenly dispersed across countries, which provides some explanation for large ICC_{L3} values.

The results also show that the proportion of variance explained differs across outcomes, which suggests group and country characteristics have varying degrees of influence on different forms of terrorist violence. The proportion of variance explained between countries is almost negligible for targeting government (3.86%), and for the use of bombs or explosions (4.33%). This may be because the government is a common targets of terrorist attacks across countries because they represent the opposition for most groups, or because this outcome has a very low base-rate. Likewise, bombings or explosions are common methods of attack because they require limited tactical skill and resources and are used by terrorists in all countries. This may be the reason there is little variation explained between countries for these variables.

Caveat: Outcome variables that are not analyzed

[32] The ICC calculations for four variables that were unable to be run in the full analysis were removed from this table because it is unclear that the ICC calculations were accurate given the complications with running analyses for these outcomes.

There are two targets and two modes of attack that were unable to be evaluated in this study. Models were separately analyzed for each of these outcome variables:

1) the number of attacks targeting police
2) the number of attacks targeting military
3) the number of terrorist attacks involving an assassination
4) the number of suicide attacks.

In each case, however, the statistical program was unable to converge and would not produce results without error. In each cases the models were run with and without outliers with no success. Models were run with just level 1 variables, and then analysis was attempted when adding in sets of group traits (e.g. ideologies, then resources, etc.). The addition of any level 2 variables in each model resulted in error.

The range for the number of attacks targeting police in a year in the full dataset is large (0 to 104), while the range for military is quite small (0 to 38). The range for the number of suicide attacks in a year, and the range of assassinations in a year are both quite small (0 to 36; 0 to 26 respectively). Note that the sample sizes that do not include outliers for suicide attacks, assassinations, and for targeting police and military are comparable to the sample sizes used to evaluate the other dependent variables. The limited variation in the dependent variable across years and across groups may explain why these variables were not able to be evaluated. This means the analyses may not have been successful because each of these targets has such a low base rate. Another possibility is that the majority of these types of attacks were conducted by very few groups and the dependent variable is not dispersed among level two units of analysis for proper interpretation. Future investigation should aggregate the total number of attacks toward these targets within these years to the group level and conduct a two-level analysis.

Multilevel Modeling Results

The results discussed in the following section are from the analyses conducted on the datasets without outliers. The results are discussed following the aims and hypotheses listed in chapter 4. Table 13 provides an overview of the results across dependent variables noting the variables that are significant with a + sign if the variable is positively associated with the outcome, or a – if the variable is negatively associated with the outcome variable, and it is blank if it is not a significant predictor for that dependent variable. In addition to this table are a series of tables for each dependent variable and the related models referred to in the discussion.

Aim 1: Counterterrorism policies

The first aim of this project is to evaluate the direct effects that counterterrorism policies have on terrorist violence. Table 14 with the results for all of the models shows that counterterrorism policies are associated with different forms of terrorist violence. The results show general trends that match the first and second hypotheses (H1a, H2a) regarding reward and punishing counterterrorism policies. As hypothesized in 1a, the rewarding counterterrorism policies (e.g. "carrot" approach, deradicalization) are associated with fewer attacks across the models.[33] In contrast, the punishing counterterrorism policies (e.g. "stick" approach, torture, and internment) are all associated with more attacks of various types, as hypothesized in 2a. These relationships are elaborated on in the discussion that follows.

The results show partial support for hypothesis 1a suggesting that rewarding counterterrorism policies are associated with less terrorist violence, and no support for hypothesis 1b that argued rewarding policies would encourage violence. As shown in table 14, the "carrot" approach and deradicalization programs are significantly associated with fewer

[33] Note that deradicalization is associated with more transnational attacks in the dichotomous model. This relationship is discussed later in this section.

attacks and fatalities in a year ("carrot": Exp(B) = 0.64, $p = 0.056$; Exp(B) = 0.42, $p < 0.01$; deradicalization: Exp(B) = 0.53, $p < 0.05$; Exp(B) = 0.62, $p < 0.05$, respectively).[34] Table 14 shows that the "carrot" approach is also a significant predictor of fewer attacks targeting the government (Exp(B) = 0.13, $p < 0.01$). Ceasefire, the other rewarding counterterrorism policy, is not a significant predictor in any of the models.[35] Although not all of the rewarding policies were significant, those that are significant are associated with less violence. This supports the idea that such policies deter terrorist groups and/or that such policies are implemented in response to groups that conduct less violence. It is worthwhile to note that the results for rewarding counterterrorism policies do not suggest any sort of backlash effect (e.g. increase in the number of attacks or fatalities).

The rewarding policies also had significant associations that were not hypothesized. Table 14 shows that the "carrot" approach is a significant predictor of fewer armed assault attacks and fewer attacks conducted in the home-base country (domestic attacks) (Exp(B) = 0.38, $p < 0.01$; Exp(B) = 0.46, $p < 0.05$, respectively). Ecological theory and the literature on terrorism do not suggest reasons for why "carrot" counterterrorism tactics may have a unique effect on armed assaults; however, some "carrot" counterterrorism policies involve amnesty agreements for terrorist group members who turn in weapons, which may diminish the opportunity to conduct armed assaults. The hypothesized deterrent effect that "carrot" policies may have on the number of terrorist attacks likely explains the relationship between these policies and fewer domestic attacks, if these "carrot" policies are implemented within the home-base country.

[34] Note that the "carrot" counterterrorism approach qualifies for trend level significance at the $p<0.06$ level the number of attacks model.

[35] Ceasefires may not be significant because this variable was recorded if a unilateral or bilateral ceasefire or truce was formally or informally made. Conducting the research it was found that there were often claims that both the government and/or the group did not uphold ceasefires. This variable's operationalization may complicate the generation of useful results and is discussed as a limitation in chapter 7.

Deradicalization programs are a significant predictor of fewer attacks in the home-base country (Exp(B) = 0.47, $p < 0.05$). In contrast, deradicalization programs used toward a group are associated with a preference toward conducting attacks transnationally (Exp(B) = 6.48, $p < 0.05$). These contrasting effects of deradicalization programs may be because most of these programs are offered by the home-base country. Rather than provoke the home-base country, terrorist groups that are continuing to engage in violence may prefer to conduct attacks targeting a foreign enemy.

In contrast to the rewarding policies, punishing counterterrorism policies (e.g. "stick" approach, torture, internment) are associated with more terrorist violence. Providing partial support to hypotheses 2a, the "stick" approach is significantly associated with more attacks (Exp(B) = 1.34, $p < 0.05$), while internment is associated with a greater number of fatalities in a year (Exp(B) = 1.58, $p < 0.01$). Contrary to the hypotheses, these policies are not associated with the number of attacks targeting the government.[36] Without further investigation it is not possible to determine the cause of the relationship between punishing counterterrorism policies and terrorist violence. The results are not able to determine whether terrorist groups that conduct more violence are then subjected to punishing counterterrorism policies, or if groups subjected to these policies are provoked to conduct more violence, or if this result is due to both. The significant association between increased terrorist violence and punishing policies may reflect either of these relationships in different locations.

Punishing counterterrorism polices are significantly associated with other forms of terrorist violence.[37] Internment is associated with the preference for conducting attacks in the

[36] The analysis for suicide attacks could not be completed so this part of the second hypothesis is not tested.
[37] The "stick" approach is significantly associated with more bombs and armed assaults (Exp(B) = 0.76, $p < 0.001$; Exp(B) = 0.51, $p < 0.05$, respectively), as well as the preference for conducting domestic attacks (Exp(B) = 0.55, $p < 0.05$). Without knowing specifically what counterterrorism actions were directed at a group in that year to constitute

home-base country (Exp(B) = 2.37, $p < 0.01$). This result may indicate that internment is implemented by the home-base country in response to a group conducting domestic violence, or it may suggest a backlash effect in response to internment, if it is conducted by the home-base country. Further investigation of the data collected for this variable is discussed to inform the speculation about this relationship. There were a total of 113 years that internment was used toward groups in the sample of 1,240 years. Of those 113 years, the home-base country was responsible for the internment in 51 years, while foreign countries were responsible for the internment of terrorist group members in 61 of the years in the sample. There was one year where terrorist group members were subjected to internment by both the home-base country and a foreign country. It would be easier to speculate about the relationship between internment and domestic attacks if the policy was conducted predominantly by the home-base country. The significant association between the internment counterterrorism policy and domestic attacks may be due to groups having fewer resources to conduct transnational attacks if large numbers of the group are interned. Further research is needed to investigate this relationship.

The next set of hypotheses relate to counterterrorism policies that affect terrorist group structure. The results show partial support for both of the contrasting hypotheses, 3a and 3b. Leadership decapitation, which involves the killing or arrest of a terrorist group leader, is significantly associated with fewer attacks (Exp(B) = 0.59, $p < 0.05$), and armed assaults (Exp(B) = 0.40, $p < 0.01$), supporting the 3a hypothesis. Although there are some incidents where the leader being killed may provoke a backlash effect, the results show that removing the leader is associated with less terrorist violence. This has interesting implications for the role

coding the "stick" approach, is not clear how to interpret this relationship or if this is a spurious relationship between variables. Similarly, torture is a significant predictor of more armed assaults (Exp(B) = 0.53, $p < 0.01$), but there is no known explanation for this relationship, so it is mentioned but likely is spurious.

leaders have in groups to inspire and/or facilitate terrorist attacks, especially in light of the fact that many terrorist groups have a flat, or leaderless, group structure. Further research should be done to investigate how the structure of a group, whether it is flat or hierarchical, conditions the effect of leadership decapitation.

In contrast, the mass arrest counterterrorism policy is associated with more terrorist violence, supporting hypothesis 3b. Specifically, mass arrest predicts more attacks of all forms measured in this study except the rate of fatalities per attack in a year and a preference for transnational attacks. Mass arrests may be a common counterterrorism policy implemented in response to substantial terrorist violence of all forms.[38] The results cannot indicate if mass arrests are implemented in response to violence, or if such arrests provoke violence by disrupting control over group members, or both. Further research is needed to investigate if this result reflects a specific causal direction between mass arrests and terrorist violence.

The fourth hypothesis focuses on how counterterrorism policies that limit terrorist movement (e.g. curfew, checkpoints) are associated with group violence. The results support hypothesis 4b that these policies, when they are significant predictors, are consistently associated with more violence. This result suggests that these policies are implemented in response to violence. However, the association between checkpoints and the rate of fatalities may suggest that these locations offer a location where attacks can take place and cause more fatalities (Exp(B) = 1.87, $p < 0.001$). Further research should investigate the specific location of attacks in these years to determine if the checkpoint location predicts the number and/or rate of fatalities.

Table 14 shows that the use of domestic military toward a terrorist group is significantly associated with fewer domestic and transnational attacks (Exp(B) = 0.68, $p < 0.05$; Exp(B) =

[38] See the discussion of this variable in Chapter 7 and how the mass arrest variable may be coded differently to show varying effects of mass arrest depending on the number or proportion of terrorist group members arrested.

0.55, $p < 0.01$, respectively). The military directed toward a group may significantly affect the group's mobility, aside from the curfews and checkpoints described above. The military may limit the group's ability to organize and coordinate attacks, both at home and abroad. This is an interesting finding, however, because it suggests this policy may not be implemented in response to large scale terrorist violence.[39] Future research should investigate why the domestic military is being directed toward a group and how this affects a group's violence. International law enforcement and/or military is a predictor of fewer fatalities per attack at the trend level of significant (Exp(B) = 0.60, $p = 0.052$).[40] International counterterrorism efforts may deter or prevent terrorist groups from conducting attacks with large numbers of fatalities. Further investigation into the international counterterrorism efforts directed at groups is necessary to further explain the relationship with the rate of fatalities in terrorist attacks.

The results show that despite different counterterrorism policies have varying relationships with terrorist attacks, most of the policies are consistent in whether they are associated with more or less violence. The next section discusses the direct effects of terrorist group traits on terrorist violence.

Aim 2: Terrorist group traits

The second aim of this study is to determine if terrorist group traits have a direct effect on terrorist violence. The first set of hypotheses focus on terrorist group ideology and how the literature suggests this may affect violence.

[39] Bivariate correlation between group age and domestic military was conducted to determine if the military was deployed toward groups that were long-standing threats and though not conducting attacks now, had been perpetrators of many attacks in the past. The result of this correlation was not significant ($r = 0.01$, $p<0.10$) suggesting that this does not explain the relationship between these variables.

[40] International law enforcement and/or military is a significant predictor of more attacks on business, however this appears to be a spurious relationship (Exp(B) = 0.59, $p < 0.05$).

The fifth hypothesis suggests that religious ideology is associated with more fatalities, civilian targets, and transnational terrorist attacks.[41] The results show that the fifth hypothesis is partially supported. Religious groups significantly differ from pure ethnonationalist groups, the reference category, in the number and rate of fatalities in terrorist attacks (Exp(B) = 8.14, $p < 0.001$; Exp(B) = 3.15, $p = 0.054$, respectively).[42] Specifically, religious terrorist groups are associated with larger numbers and rates of fatalities in terrorist attacks. These results corroborate what has been found in prior research (see Asal and Rethemeyer, 2008b). Interestingly, all of the ideological groups are associated with more fatalities than the pure ethnonationalist group. The effect size, however, is dramatically larger for religious groups when estimating the count of fatalities in a year. In comparison to the reference category, average number of fatalities is 8.14 per year for religious groups, compared to 7.03 for "other" terrorist groups, 6.50 for religious-ethnonationalist groups, and 6.17 for leftwing groups. In contrast, religious ideology only qualifies for trend level significance and does not have as strong an effect size as religious-ethnonationalist groups (Exp(B) = 3.42, $p < 0.01$) on the rate of fatalities per attack, in comparison to the reference category (Exp(B) = 3.15, $p = 0.054$). Compared to the reference category, religious-ethnonationalist groups average 3.42 fatalities per attack in a year, compared to 3.15 for religious groups. These results support the claim that religious groups are more inclined to conduct attacks with fatalities. In contrast, religious groups are not significantly different from pure ethnonationalist groups in the number of attacks targeting civilians. Bear in mind that the outliers are not included in this analysis, and perhaps some religious groups are

[41] The descriptive statistics show that religious groups have the largest average number of fatalities and rate of fatalities per attack in a year, the largest average number of attacks in a year targeting civilians (in the full dataset), and the largest average for transnational attacks (measured as a binary outcome). These descriptive statistics provide support for the formulation of the fifth hypothesis suggesting that religious ideology influences terrorist violence.
[42] Religious ideology is approaching significance as a predictor of the rate of fatalities.

responsible for numerous attacks on civilians. The descriptive results suggest that outliers strongly influence the relationship between religious terrorist ideology and the number of attacks targeting of civilians. The results support the idea that the outliers are the exception to the general trend that religious groups do not significantly differ predict targeting civilians.

As stated, religious groups are hypothesized to predict more transnational attacks, however, the results from this study do not support this hypothesis. The religious ideology does not have a significant effect on the number of transnational attacks a group conducts or the preference for transnational attacks in a year (dichotomous outcome where 1 = the majority of attacks in the year are transnational). In contrast, religious ideology is a significant predictor of more domestic attacks (count) than the pure ethnonationalist reference category (Exp(B) = 4.97, $p < 0.01$). The count variable for location is cautiously interpreted because it may be skewed by the total number of attacks a group conducted in the year. One explanation for the surprising relationship between religious ideology and the location of attacks may be that religious terrorist groups include a variety of faiths. Although radical Islamic groups have been associated with borderless agendas and infamous groups, such as Al Qaeda, are associated with well-known transnational attacks, groups of other faiths (e.g. Christianity, Judaism) are often involved in more localized conflict. In this sample, however, 78.5% of the religious or religious-ethnonationalist groups are associated with Islam, while 20% are Christian, and 1.5% are Jewish. It can be argued that the combination of these groups under a single ideological construct masks the nuanced differences in ideology.

The relationships between ethnonationalist ideology and terrorist violence discussed in the sixth hypothesis were tested in supplementary analyses using leftwing groups as the reference category for comparison. Ethnonationalist groups are hypothesized to be associated

with more terrorism targeting the state and domestic attacks.[43] The results of the analyses indicate that ethnonationalist groups do not significantly predict the number of attacks targeting the government, nor does this ideology predict the preference in location of attack (i.e. domestic or transnational). For thorough evaluation, the two ethnonationalist groups (pure ethnonationalist and "contains" ethnonationalism) were combined to determine if this would better distinguish the relationship of ethnonationalism and these outcome variables from the leftwing group reference category. The results are consistent that ethnonationalism did not significantly differ from the leftwing groups on these variables. As such, the sixth hypotheses is not supported.

The seventh hypothesis focuses on leftwing ideological groups. It is hypothesized that the economic and social agenda underlying leftwing groups is associated with more targeting businesses and the government.[44] The analysis was run in two ways with different reference categories. Theoretically, leftwing groups would differ most from religious groups in their selection of targets. The results of this model reported in table 15 show that in comparison to religious groups, the leftwing groups are a significant predictor of more attacks targeting the government (Exp(B) = 7.29, $p < 0.01$). The results, however, show that leftwing groups are not significantly associated with attacks targeting businesses. These findings may suggest that

[43] Note that the descriptive statistics show that the pure ethnonationalist groups have considerably fewer attacks in a year compared to terrorist groups of other ideologies.

[44] Note that the analyses for the number of attacks targeting the government were run with the ideological groups: religious, ethnonationalist, religious-ethnonationalist, leftwing, and other. In this analyses the "pure" and "contained" ethnonationalist groups were combined because the program would not converge when they were entered separately or when one of the ethnonationalist groups was used as the reference category. In prior analyses these groups have been found to be significantly different from one another, and so these groups have been kept separate; however, for the analysis of government targets they are combined so that the analysis would converge. Separate analyses of government targets was run with two different reference categories: ethnonationalist and leftwing groups. The analysis was also run with ethnonationalist groups as the reference category so that the results of the model could be evaluated in relation to the other outcome variables that have ethnonationalist groups as the reference category (see table 15). Note that in this model, leftwing groups do not significantly differ from ethnonationalist groups in the prediction of the number of attacks targeting the government. The results are the same aside from differentiating leftwing groups as significantly associated with more government attacks than religious groups.

leftwing groups identify governing powers as the cause of economic strife, rather than businesses operating in the capitalist society. In total, these results provide partial support for the seventh hypothesis.

The next set of hypotheses are related to whether members of the terrorist group are minorities and/or ex-patriots in the home-base country. There is partial support for the eighth hypothesis as ex-patriot groups are significantly associated with more fatalities and a higher rate of fatalities per terrorist attack (Exp(B) = 2.62, $p < 0.05$; Exp(B) = 3.23, $p < 0.01$, respectively), though neither ex-patriot terrorist groups nor terrorist groups consisting of minorities are associated with attacks targeting civilians. Ex-patriot terrorist groups are, however, associated with more attacks targeting the government (Exp(B) = 3.57, $p < 0.05$). Ex-patriot terrorist groups have a unique relationship to governing bodies depending on why members are ex-patriots from their country of origin. The association between ex-patriot terrorist groups and government targets, as opposed to civilian targets, should be further investigated. Likewise, the relationship between ex-patriot groups and fatalities is not known to have been shown in prior statistical analysis. Future research should investigate why ex-patriots conduct attacks with more fatalities and determine if there are differences in the number of fatalities for attacks in the home-base country (i.e. where the group formed) than in the country of origin (i.e. where the group members are originally from).

The results reported in table 14 indicate the ninth hypothesis is fully supported as ex-patriot terrorist groups are significantly associated with more transnational attacks (Exp(B) = 11.48, $p < 0.001$) and the preference for transnational attacks (Exp(B) = 13.97, $p < 0.001$), and a

significant predictor of fewer domestic attacks (Exp(B) = 0.27, $p < 0.05$).[45] This means that ex-patriots are conducting fewer attacks in the country the group formed in (i.e. not the country of origin for the group members). Although there are well known ex-patriot terrorist groups (e.g. Al Qa'ida) that do not intend to attack their country of origin, some ex-patriot groups may develop as a form of retaliation against the governing powers in their country of origin. Though further investigation is necessary, the results for ex-patriot terrorist groups and location (preference for transnational attacks) and targets (association with more government attacks) may support the idea that these groups travel to their country of origin to attack the government.

The tenth hypothesis argues that terrorist groups with more resources (e.g. group size, alliances, and financial support) will be associated with more attacks, fatalities, incidents targeting the government, and transnational terrorist violence. The hypothesis is partially supported as larger terrorist groups and terrorist groups with more alliances are significantly associated with more terrorist attacks and fatalities (though not the rate of fatalities) (group size: Exp(B) = 1.45, $p < 0.05$; Exp(B) = 1.52, $p < 0.05$; alliances: Exp(B) = 1.21, $p < 0.01$; Exp(B) = 1.24, $p < 0.05$, respectively). Larger groups are associated with more attacks targeting the government, a hard target (Exp(B) = 1.91, $p < 0.05$), while groups with more alliances are associated with more transnational attacks (Exp(B) = 1.35, $p < 0.05$) and a preference for transnational attacks (Exp(B) = 1.66, $p < 0.01$).[46] These group traits are both significant

[45]Terrorist groups made up of religious and/or ethnic minorities are associated with a preference for transnational attacks (binary). Comparing the results for ex-patriot terrorist groups and terrorist groups that consist of minorities indicates that these two similar qualities of terrorist groups have distinct direct effects on terrorist violence.

[46] The financial support provided to a group from a country is not significant for any of the variables, except for a negative relationship with the preference of transnational attacks (binary outcome). This result likely reflects the nature of the financial obligation between the group and the state supporting the group, rather than the influence of the means available to the group on their choice of violence. The results suggest that the financial arrangement between terrorist groups and states sponsoring them is related to the localized geopolitical environment, though further analysis of this is necessary to be conclusive. The limitation of this variable as a proxy measure of terrorist group resources is elaborated on in chapter 7.

predictors of more attacks targeting civilians, and bomb attacks (size: Exp(B) = 1.87, $p < 0.01$; Exp(B) = 1.72, $p < 0.05$; alliances: Exp(B) = 1.36, $p < 0.01$; Exp(B) = 1.42, $p < 0.001$). Civilians are a soft target, meaning they are not guarded by security and are easy to access, and therefore civilians do not necessarily require considerable economic resources to target in an attack. Group size and alliances represent support in numbers, which is another important resource. Terrorist incidents targeting civilians have been shown to cause some terrorist group members to question their level of commitment, or to disengage from the group. A large group may be better able to sustain these losses and continue targeting civilians, unlike a small group. Similarly, the materials required for building bombs and explosives are usually accessible and noteworthy skills are not needed to carry out such an attack. However, larger groups may be better suited for designating group members in different roles for conducting terrorist attacks. For example, large groups have the ability to assign foot soldiers the role of planting bombs and carry out attacks, while other members are designated as bomb-makers. Large group membership better enables a terrorist organization to continue with this mode of attack despite the loss of foot soldiers who are arrested or killed while planting bombs. The results show that group size is a significant predictor of more armed assaults (Exp(B) = 2.21, $p < 0.01$), but the number of alliances to other terrorist groups is not significant. These results may implicate the importance of terrorist networks and alliances for sharing bomb-making skills, which armed assault attacks do not require. The policy implications related to this finding are discussed in chapter 7.

The results in this study show that group traits have direct effects on terrorist violence. The next section discusses the country-level results.

Aim 3: Country characteristics

The third aim of this study is to evaluate how characteristics of the country in which a terrorist group originates influences the group's violence. The eleventh hypothesis suggests that racial and ethnic heterogeneity in a country affect terrorist violence and the selection of targets. The results in table 14 show that ethnic heterogeneity in a country is a significant predictor of more terrorist attacks (Exp(B) = 2.82, $p < 0.05$). This means that terrorist groups that originate in ethnically diverse countries conduct an average of 2.82 more terrorist attacks in a year than groups in more ethnically homogenous countries. These results to not specify the nature of the increased terrorist violence. For example, the larger magnitude of terrorist violence in an ethnically diverse country may be conducted predominantly by members of the majority population who feel threatened by increasing heterogeneity. In contrast, the violence may be related to minority groups in the country that may feel disenfranchised.[47] The results for group traits indicate the neither minority nor ex-patriot status of the group are significant predictors for the number of terrorist attacks. Relatedly, the disparity of wealth in a country (measured by the GINI index) is not a significant predictor of the number of attacks, which suggests it is not an economic disparity underlying the influence of ethnic heterogeneity on terrorism. These results suggest that the amount of violence in diverse countries may not be due to the plight of the disenfranchised in these countries, but perhaps the fear on behalf of members of the majority in the country. It is also worthwhile to consider that the results for this variable may reflect the change in diversity that much of the world was experiencing in this time, or perhaps another related country characteristic (e.g. social disorganization in society, lack of integration of immigrants and/or minorities). Future research should unpack this relationship and investigate how ethnic heterogeneity influences the differing populations and affects terrorist violence.

[47] Note that ethnic diversity does not necessarily *cause* disenfranchisement of the minority populations, however, socioeconomic differences often exist between ethnic populations in diverse counties.

Neither ethnic nor religious heterogeneity in a country is associated with civilian targets or fatalities in terrorist attacks (see table 14).[48] However, religious heterogeneity is significantly associated with fewer attacks targeting the government (Exp(B) = 0.07, $p < 0.05$). Religious heterogeneity presumes a freedom of religious practice that is enabled by the state. One could argue that terrorist groups are less inclined to target the government in a country that protects religious freedom. Future research should further investigate this relationship.

The twelfth hypothesis is not supported. As previously noted, economic disparity in a country, as measured by the GINI index, is not significantly associated with terrorist violence in any of the forms measured in this study. Similarly, the overall wealth of a country, the GDP, is not associated with terrorist violence in this study. These results are similar to findings in the literature that have found no relationship between economic indicators or measures of poverty and political or religiously motivated violence (see Piazza, 2006).

It is argued that good governance, or countries that allow for political freedom and abstain from human rights abuses enable non-violent means of protest. Therefore it was hypothesized that democracy would be associated with less terrorist violence. This hypothesis is not supported as the results show that democracy is not a significant predictor of fewer terrorist attacks or fatalities. In contrast, the fourteenth hypotheses is partially supported. As seen in table 14, governments that commit fewer human rights abuses in the country are associated with fewer total fatalities in a year and a lower rate of fatalities per attack (Exp(B) = 0.74, $p < 0.05$; Exp(B) = 0.78, $p < 0.05$, respectively). Maintaining human rights, however, is not a significant predictor for the number of attacks in a country or the targets of terrorist attacks. These results suggest that

[48] The results show that ethnic heterogeneity is significantly associated with more armed assault attacks (Exp(B) = 1.62, $p < 0.05$). There is no known literature that suggests why this may be, so it is considered a spurious relationship.

the regime type and the protection of human rights have unique influences on different aspects of terrorist violence.

Democracy is a significant country characteristic for predicting the location of attacks (see table 14). Democracy is a significant predictor of more domestic attacks (Exp(B) = 2.17, $p < 0.01$), and the home-base country being a democracy is significantly associated with fewer transnational attacks (both count and binary: Exp(B) = 0.12, $p < 0.01$; Exp(B) = 0.04, $p < 0.05$, respectively). These results mean that groups originating in a democracy are less inclined to conduct transnational attacks and more inclined to conduct domestic attacks. A possible explanation may be that the terrorist groups that develop in democracies are different from groups that develop elsewhere, and terrorist groups from democracies tend to have more geographically constrained interests.[49] Future research should investigate if country characteristics (e.g. regime type, countries that protect human rights) predict the type of groups that develop there, and see if the results help explain this finding.

The country level control variable for the ratio of unknown perpetrators of terrorist attacks in a country is a significant predictor for a number of terrorist violence outcome variables.[50] The results in table 14 show that there are fewer fatalities in terrorist attacks in countries with more attacks by an unknown perpetrator (Exp(B) = 0.68, $p < 0.001$). This is likely because of the political pressure to identify the terrorist group responsible for lethal attacks, and likewise, the law enforcement may be better suited to prevent attacks with many fatalities.

[49] Note that bivariate correlations were conducted and there were no strong relationships between any group ideologies and the democratic regime. This may suggest that the hypothesis that regime type may predict the type of group operating there is inaccurate, however, it may be argued that there are other groups traits that are not represented by the ideological categories used in this data that may differentiate the terrorist groups originating in democracies.

[50] Most of these relationships appear to be spurious with no theoretical or literature-based explanation for the relationships shown.

The results show that the country context has direct influence on terrorist violence. The next section discusses the results for the moderation hypotheses that suggest the country characteristics may condition the influence of group traits, and that the type of terrorist group may moderate the effect of counterterrorism policies on terrorist violence.

Aim 4: Moderation relationships

The fourth aim is to evaluate the hypothesized moderation relationships. As previously mentioned, the cross-level interaction equations used to evaluate moderation hypotheses were only analyzed if both of the variables involved in the equation have significant, direct effects on the outcome variable in the full model (i.e. the full model includes all the variables at level 1, 2, and 3). As a result, not all of the hypothesized relationships were tested.

The fifteenth hypothesis states that the degree of ethnic heterogeneity in a country will influence the number of terrorist attacks carried out by pure ethnonationalist groups.[51] Table 16 shows the results where ethnonationalist groups are compared to the reference category, leftwing terrorist groups. The preliminary analysis with the full model shows that both the ethnic heterogeneity in the country and the ethnonationalist ideology are significant predictors for the number of attacks a terrorist group conducts in a year. Specifically, ethnonationalist groups are associated with fewer terrorist attacks than the reference category (Exp(B) = 0.35, $p < 0.01$), while greater ethnic diversity in a country is associated with more terrorist attacks (Exp(B) = 2.82, $p < 0.05$). The addition of the cross-level interaction result shows a significant moderation effect. As hypothesized, ethnonationalist groups conduct fewer attacks in countries that are more ethnically heterogeneous (Exp(B) = 0.08, $p < 0.01$).

[51] The analyses for all the terrorist attack outcome variables has pure ethnonationalist groups as the reference category. Analysis was done separately using leftwing groups as the reference category so that this relationship could be evaluated. Note that aside from the ideological variables, all other variables maintain the same influence on this outcome, the number of attacks in a year.

Graph 3 provides a visual representation of this moderation relationship. The graph depicts the predicted probabilities for pure ethnonationalism groups and leftwing groups in countries with differing degrees of ethnic diversity. The leftwing groups show higher rates of attacks (3.1 attacks per year) in countries with a high degree of ethnic heterogeneity (calculated as one standard deviation above the mean) than in countries with the average degree of ethnic diversity (2.3 attacks per year) and in countries that are more ethnically homogeneous (calculated as one standard deviation below the mean) where left wing groups conduct 1.7 attacks per year. The leftwing results show the direct effect of ethnic diversity, which is associated with more attacks as a direct effect. However, the graph shows how pure ethnonationalism groups operate differently in these countries. Specifically, the rate of attacks is lower (0.6) in ethnically diverse countries than in countries with the average diversity (0.9) or low diversity (1.25). Granted, ethnonationalist groups conduct fewer attacks than the leftwing groups in all types of countries, but this result shows how the type of country the group is operating in conditions the degree of violence ethnonationalist groups conduct. This finding suggests that ethnonationalist groups are likely to operate and conduct more attacks in countries where conflict exists between few distinct ethnic groups. Group identification, and relatedly self-identification, is often relational, meaning that groups identify themselves in comparison to the "other." Ethnonationalists distinguish themselves by their ethnicity, and such distinctions are easier to make in areas that are less ethnically diverse. It is thought that the stark differences and conflicts between groups is magnified in areas with few ethnicities, and therefore ethnonationalist groups are associated with more attacks in less diverse countries.

The sixteenth hypothesis was not tested because religious fractionalization is only significant in the model of attacks targeting the government, and religious ideology is not a

significant factor in this model. In contrast, the influence of group size on the mass arrest counterterrorism policy, discussed in hypothesis eighteen, was evaluated for many dependent variables because both of these variables are significant predictors for many outcomes. Mass arrests, it was hypothesized, will have less effect on terrorist groups that have many members. Interestingly, the relationship was only significant for one model: the number of attacks using armed assault (see the cross-level interaction results in table 17). The results of the cross-level interaction equation show support for the hypothesis. Specifically, the results show that the mass arrest policy has *less* effect on the number of armed assault attacks conducted by groups that are large in size (Exp(B) = 0.53, $p < 0.05$).[52]

Graph 4 depicts terrorist groups of differing size that are exposed to mass arrest and those that are not. The predicted probabilities show that larger groups conduct more armed assault attacks in a year than smaller groups. Additionally, the graph shows that terrorist groups subjected to mass arrest are associated with more armed assault attacks. The moderation effect is depicted in the difference in the rate of attacks between groups of the same size that experienced at least one mass arrest and groups that did not have mass arrest. The difference in the predicted rate of armed assaults in a year for large groups is 1.26 (rate of attacks for large groups subjected to mass arrest is 2.69 and for large groups not subjected to mass arrest is 1.43), while the difference for the average size terrorist group is 1.15, and the difference for small groups is 0.85. The decreasing difference in the rate of armed assaults shows that mass arrests has different effects depending on the size of the group. Specifically, large groups conduct more armed assaults when subjected to mass arrest than other sized terrorist groups. Importantly, the

[52] The cross-level analysis was evaluated with pure ethnonationalism as the reference category and with leftwing groups as the reference category, both models finding the same results. The results for the analysis with leftwing reference category are provided due to the related moderation hypothesis that is later reported evaluating ethnonationalist groups and armed assaults.

direction of this relationship is not known. Mass arrests may be in response to many attacks, or may provoke more armed assaults. Arguably, mass arrest inhibits small groups from conducting armed assaults more than large groups. At the same time, it's possible that mass arrests are used toward larger groups that conduct more armed assaults.

The relationship between mass arrest and terrorist group size indicates that group traits may influence the effect of counterterrorism policies, but for a specific mode of operation. The same relationship was evaluated for the number of attacks using bombs, and it is not significant. The different results suggests there is a unique relationship between group size and mass arrests that influences this mode of operation (i.e. armed assaults, but not bombings). Although both bombings and armed assaults can be conducted with few group members, it is argued that armed assaults may often be perpetrated by more individuals in a single incident, and therefore the change group membership may have a larger effect on this mode of operation compared to bombings. Future research should investigate why terrorist group size has a distinct influence conditioning the effect of the mass arrest counterterrorism tactic for only this outcome, armed assault, and not on other aspects of terrorist violence.[53]

The next moderation hypothesis argues that pure ethnonationalism groups have a unique relationship with rewarding counterterrorism policies (e.g. "carrot" approach, deradicalization programs, ceasefire). Cross-level interaction equations were evaluated using the leftwing groups as the reference category. The findings of the full model show that deradicalization and ethnonationalist ideology each have significant direct effects on the number of attacks a group conducts in a year (Exp(B) = 0.53, $p < 0.05$; Exp(B) = 0.35, $p < 0.05$, respectively). The cross-

[53] The comparison of significant factors across models with different sample sizes is done cautiously, but note that the sample sizes differ by only 6 years at level one so comparison of significant factors is not unreasonable.

level interaction was evaluated and the hypotheses is not supported.[54] These null results show that the nineteenth hypothesis is not supported in this analysis.

The last moderation hypothesis is that the trajectories of terrorist violence will differ for various terrorist group ideologies. This is evaluated by conducting a cross-level interaction equation of the group ideology in level two (the group level) on the measurement of time in level one (the year level). Although both time and various ideological groups were significant predictors of a number of outcome variables, only two relationships evaluated are significant or qualify for trend level significance (see table 17). One group trajectory that differed over time is pure ethnonationalism groups for armed assaults. The results in table 17 show that as time increases by a year, the number of armed assaults in a year decrease by 0.93 (Exp(B) = 0.93, $p < 0.05$). The cross-level interaction result shows that compared to leftwing groups, the reference category, ethnonationalism groups increase in the number of armed assaults over time (Exp(B) = 1.24, $p < 0.05$).[55] Graph 5 depicts the number of armed assault attacks in a year over time for ethnonationalist groups and leftwing groups. The graph shows that leftwing groups conduct a greater number of armed assaults, however, the trajectories over time are in different directions. Leftwing groups decrease in the number of armed assaults over time, while ethnonationalist groups increase the number of armed assaults over time. It is not clear why pure ethnonationalist groups would have a different trajectory for this mode of attack. Because time and ethnonationalist groups were not significant predictors of bombings, this study did not evaluate whether bomb attacks decreased over time for this type of terrorist group. It is possible that

[54] A cross-level equation was also analyzed to determine if the ethnonationalist ideology conditioned the effect of "carrot" approaches on the dependent variable, despite the fact that the "carrot" approach reaches only the trend level of significance in the full model ($p<0.055$). The model was not able to converge to produce accurate results. The ceasefire policy is not a significant predictor in the full model, so the cross-level interaction was not evaluated.
[55] Note that table 17 shows the significant moderation effects remain when both the size X mass arrest and the ethnonationalism X time cross-level interaction equations are modeled together.

another mode of attack decreases over time for ethnonationalist groups, suggesting an increase in armed assaults is a displacement effect where tactics change over time. Future research should investigate these groups and their choices of methods of attack to determine if these results reflect a unique displacement effect for pure ethnonationalist groups.

The second group trajectory that differs over time is religious groups, compared to the pure ethnonationalism reference category, for the number of fatalities in a year (Exp(B) = 1.14, p = 0.057). This means that religious terrorist groups do not decrease in the number of fatalities over time, as other groups do. Graph 6 plots the predicted probabilities for the number of fatalities in a year for religious groups and for the reference category, pure ethnonationalism groups. Clearly religious groups have more fatalities in a year than ethnonationalism groups, as is shown by the direct effect of this ideology. The moderation relationship is depicted by the differing slopes between religious and ethnonationalist groups over time. The number of fatalities predicted for ethnonationalist groups decrease by 1.15 fatalities (from 2.16 to 1.01), while the number of fatalities predicted for religious groups decreases by only 0.05 (from 12.24 to 12.19).

The results show support for multiple cross-level interaction relationships. The findings confirm that the country context influences how specific terrorist groups conduct violence, that group traits influence how counterterrorism policies effect terrorist violence, and different ideological groups have varying violent trajectories over time. The following aim seeks to evaluate whether modeling the influence of multiple countries on a terrorist group effects the results.

Aim 5: Modeling factors

The analyses discussed thus far models the terrorist groups within the home-base country. In this sample, 39 terrorist groups (26.4% of groups in the sample) conducted attacks in two or more countries. The fifth aim of this study is to determine if the modeling of terrorist violence is improved by including each country in which the group operates in the analysis. The analysis was completed with multiple membership random effects modeling (MMREM) using MLwiN software to evaluate the number of terrorist attacks outcome variable. The analysis with the home-base country includes 48 countries, while the MMREM modeling includes 66 countries. The results are depicted in table 18.

The results show similar results for counterterrorism policies on the number of attacks a group conducts. Both the "stick" approach and mass arrest are associated with more terrorist attacks (Full model: Exp(B) = 1.14, $p < 0.05$; Exp(B) = 1.18, $p < 0.05$; MMREM model: Exp(B) = 1.14, $p < 0.05$; Exp(B) = 1.20, $p < 0.05$, respectively), as was found in the original analysis reported. At level two the results of both models show that large groups and terrorist groups with more alliances are associated with more attacks (Full model: Exp(B) = 1.17, $p < 0.05$; Exp(B) = 1.09, $p < 0.05$; MMREM model: Exp(B) = 1.16, $p < 0.05$; Exp(B) = 1.08, $p < 0.05$). Additionally, groups that contain an ethnonationalist ideology and groups with an "other" ideology are associated with more attacks than the ethnonationalist reference category (Full model: Exp(B) = 1.49, $p < 0.05$; Exp(B) = 1.64, $p < 0.05$; MMREM model: Exp(B) = 1.40, $p < 0.05$; Exp(B) = 1.46, $p < 0.05$). In contrast, leftwing terrorist groups are shown to be associated with more attacks, but only in the full model analysis that includes the home-base country context alone (Exp(B) = 1.44, $p < 0.05$). In the MMREM analysis leftwing groups do not significantly differ from the ethnonationalist groups in the number of attacks they conduct. Interestingly, only the analysis with MMREM showed a level three variable, a country

characteristic, to be significant. Ethnic fractionalization is shown to be a significant predictor of more attacks in the model that includes MMREM (Exp(B) = 1.80, $p < 0.05$).

There are a few ways to evaluate if the MMREM analysis improves the modeling of the data. Looking at the results just described, the MMREM analysis did not produce large differences from the model that only includes the home-base country. This shows that the inclusion of 18 additional countries in the analysis does not alter the associations between predictor variables and the outcome. Additionally, the proportion of variance explained did not decrease when modeling the data with MMREM (48.72% explained in the home-base country model; 42.24% in the MMREM model). Lastly, changes in the Deviance Information Criterion (DIC) diagnostic are evaluated to determine if the MMREM model is a better fit. The DIC values did not decrease, suggesting that the MMREM model is not a better fit (Home-base DIC: 2766.77; MMREM DIC: 2768.33).

The results suggest that MMREM does not improve the modeling of this data for this outcome variable. This may be due to the fact that most terrorist groups conducted domestic attacks, so modeling almost 40% more countries with a low base-rate is less reliable. It may be worthwhile to evaluate different outcome variables or smaller samples (e.g. only include countries attacked more than once) to see if this improves the analysis, though this would limit the generalizability of the results. The MMREM analysis shown here did not improve the study, which suggests the prior analyses of all the outcome variables associated with different forms of terrorist violence are suitable.

Evaluating each outcome

As previously stated, the effect sizes for significant variables cannot be compared across outcome variables because the samples used for each form of terrorist violence differ. That said,

the effect sizes of independent variables within each model can be compared. The next sections that follow discuss the differing effect sizes of significant variables for each dependent variable reported in table 14.

Number of Attacks

The rate, or the average number of attacks per year for a terrorist group is 0.36, controlling for all other variables (Exp(B) = 0.36, $p < 0.05$). A comparison of ideological groups shows that the "other" terrorist groups have the largest effect size, a rate of 3.43 attacks per year (Exp(B) = 3.43, $p < 0.05$), compared to the pure ethnonationalist group. The significant ideologies each have a larger effect size on the number of attacks in a year than the other significant group traits (alliances and group size) and counterterrorism policies. The incidence rate ratio for ethnic heterogeneity indicates that as the ethnic diversity of a country increases by one unit, the rate of attacks increases by 2.82 in a year, holding all other variables constant (Exp(B) = 2.82, $p < 0.05$). In comparison, mass arrest is associated with 1.84 attacks per year, and curfew with 1.43 attacks per year.

Graph 7 displays the predicted probability for the rate of terrorist attacks over time for the different ideological groups, controlling for other variables.[56] Group ideology has the strongest influence on this outcome variable. The overall trajectory is for groups to decrease in violence over time. Pure ethnonationalism groups have the lowest rate of attacks, while "other" ideology groups have the highest rate of attacks.

Graph 8 depicts the predicted probabilities for the ideological groups exposed to specific counterterrorism policies over time. The plots show the rate of attacks are lower for groups

[56] The predicted probability was calculated for terrorist groups that are not minorities or ex-patriots, do not have financial support from a country, do not have territorial control, and operate in democracies with financial counterterrorism legislation and have an average for all the other country characteristics, and are exposed to no counterterrorism policies.

exposed to rewarding counterterrorist policies compared to punishing counterterrorism policies. The graph shows that the general trajectory is to decrease in the rate of attacks over time, however, the initial incident rate is lower and the rate of decline over time appears to be greater for groups exposed to rewarding counterterrorism policies, compared to groups exposed to punishing measures. Although these are the general trends, there are consistent differences found with the ideology of the group. Interestingly, pure ethnonationalism groups exposed to punishing counterterrorism policies have a rate of attacks comparable to "other" ideological groups exposed to rewarding counterterrorism measures. This suggests the importance evaluating a counterterrorism policy in relation to a terrorist group's ideology. This study evaluated whether pure ethnonationalist ideology conditions the effect of rewarding counterterrorism policies (results previously discussed found the relationship is not significant), however, these results suggest that more research is needed to evaluate how other group ideologies may moderate the influence of counterterrorism strategies.

Fatalities

Much like the number of attacks in a year, group ideologies have the largest effect size on the number of fatalities in a year. Specifically, religious ideology has the largest effect size with 8.14 fatalities per year, in comparison to pure ethnonationalism groups and holding all other variables constant (Exp(B) = 8.14, $p < 0.01$). Following religious groups, "other" ideology has the second largest number of fatalities per year (7.03), and then religious-ethnonationalism groups, leftwing groups, and lastly contains ethnonationalism groups (6.50, 6.17, 4.80, respectively). The group being composed of ex-patriots increases the number of fatalities per year by 2.62, controlling for all other variables (Exp(B) = 2.62, $p < 0.05$). The results show that as the protection of human rights increases by one unit, the number of fatalities per year

decreases by 0.74, holding all other variables constant (Exp(B) = 0.74, $p < 0.05$). At level one (the year level), time has the strongest effect size at decreasing the number of fatalities in a year by 0.91 (Exp(B) = 0.91, $p < 0.01$), while mass arrest is associated with largest effect size with 1.76 more fatalities per year (Exp(B) = 1.76, $p < 0.001$).

One group ideology has the strongest effect on the rate of fatalities per attack (in a year). Specifically, religious-ethnonationalism groups have the largest effect increasing the rate of fatalities per attack in a year by 3.42 (Exp(B) = 3.42, $p < 0.01$). A group that consists of ex-patriot members has the next largest effect, increasing the rate of fatalities per attack in a year by 3.23 (Exp(B) = 3.23, $p < 0.01$). Much like the number of fatalities in a year, the protection of human rights is associated with decreasing the rate of fatalities per attack by 0.78 in a year (Exp(B) = 0.78, $p < 0.05$).

Targets

In contrast to the prior outcome variables, group ideologies do not significantly differ for the targets of attacks.[57] Mass arrest and curfew, followed by group size and alliances have the largest effect size on civilian targets (Exp(B) = 1.96, $p < 0.01$; Exp(B) = 1.88, $p < 0.001$; Exp(B) = 1.87, $p < 0.01$; and Exp(B) = 1.36, $p < 0.01$, respectively). Similarly, mass arrest has the strongest effect on the number of attacks targeting businesses (Exp(B) = 2.09, $p < 0.01$). In contrast, ex-patriot group members have the strongest influence on the number of attacks targeting the government. Controlling for other variables, the number of attacks against government in a year is 3.57 more for ex-patriot groups (Exp(B) = 3.57, $p < 0.05$). Religious fractionalization is a significant for fewer attacks toward the government. As religious

[57] Note that the effect sizes are separately compared to variables within the model for each target, not comparing the effect sizes across models, due to the different sample sizes.

heterogeneity increases by one unit, the number of attacks against the government decreases by 0.07 in a year (Exp(B) = 0.07, $p < 0.05$).

Mode of attack

Counterterrorism policies have the largest effect size on bombings. Specifically, mass arrests are associated with 3.05 bomb attacks in a year (Exp(B) = 3.05, $p < 0.001$), while the "stick" counterterrorism approach is associated with 2.14 incidents involving a bomb (Exp(B) = 2.14, $p < 0.001$), controlling for all other variables. In comparison, terrorist group traits, group size and alliances, have smaller effects and there are no country-level variables that are significant predictors of bomb or explosive attacks. In contrast, group ideology and country-level factors have the strongest effect sizes for armed assaults. The country level results show that as ethnic diversity increases by one unit, the number of armed assault attacks in a year increase by 5.04, controlling for all other variables (Exp(B) = 5.04, $p < 0.05$). The ideological variables indicate that leftwing groups have 6.90 more armed assault attacks in a year than the reference category, ethnonationalist groups (Exp(B) = 6.90, $p < 0.05$). Similarly, religious-ethnonationalists are associated with 5.61 more armed assaults, and groups that "contain ethnonationalism" have 5.31 more armed assaults than pure ethnonationalist groups. In comparison, the effect sizes of counterterrorism policies significantly associated with armed assaults are significantly smaller. For example, curfews and "stick" counterterrorism approach are associated with 1.73 and 1.67 more armed assaults in a year, controlling for all other variables (Exp(B) = 1.73, $p < 0.001$; Exp(B) = 1.67, $p < 0.05$, respectively). The policies associated with fewer armed assaults are leadership decapitation and the "carrot" approach, which are associated with 0.40 and 0.38 fewer armed assaults in a year, controlling for all other variables (Exp(B) = 0.40, $p < 0.01$; Exp(B) = 0.38, $p < 0.01$, respectively). The measurement of

time is significant showing that the number of armed assaults in a year decrease by 0.93, controlling for all other variables (Exp(B) = 0.93, $p < 0.05$).

Location of attack

Terrorist group ideology variables have stronger effect sizes on the number of domestic attacks than the country and counterterrorism variables. Controlling for all other variables, religious groups are associated with 4.97 domestic attacks in a year, compared to the ethnonationalism groups (Exp(B) = 4.97, $p < 0.01$), while "other" groups are associated with 3.66, and "contains ethnonationalism" groups are found to have 2.64 domestic attacks in a year (Exp(B) = 3.66, $p < 0.01$; (Exp(B) = 2.64, $p < 0.05$, respectively). In comparison, democratic countries are associated with 2.17 more domestic attacks, holding all other variables constant (Exp(B) = 2.17, $p < 0.01$). Mass arrest has the strongest relationship with the number of domestic attacks in a year increasing by 1.74 (Exp(B) = 1.74, $p < 0.001$). There are a number of level one (the year level) variables associated with fewer domestic attacks, including domestic military, deradicalization programs, the "carrot" approach, and the time measurement. Time has the largest effect, as the results show that as time increases by one year, the number of domestic attacks decrease by 0.95, controlling for all other variables (Exp(B) = 0.95, $p < 0.05$).

In comparison, group ideology is not a significant predictor of the number (or preference) of transnational attacks. However, the terrorist group consisting of ex-patriots has the largest effect size on transnational attacks. Ex-patriot groups are associated with 11.48 more transnational attacks in a year, controlling for all other variables (Exp(B) = 11.48, $p < 0.001$). The control of territory is also a significant predictor of transnational attacks, being associated with 4.74 more transnational attacks in a year (Exp(B) = 4.74, $p < 0.05$). Similar to domestic attacks, mass arrest has the strongest association with more transnational attacks in a year

compared to the other counterterrorism variables. Mass arrests are associated with 2.18 more transnational attacks in a year, holding all other variables constant (Exp(B) = 2.18, $p < 0.05$). Like the number of domestic attacks, domestic military directed at a terrorist group is associated with 0.55 fewer transnational attacks in a year (Exp(B) = 0.55, $p < 0.01$). Groups operating in a democratic home-base country are associated with 0.12 fewer transnational attacks in a year (Exp(B) = 0.12, $p < 0.01$).

The dichotomous variable representing a preference for conducting transnational attacks show somewhat similar results to the model for the number of transnational attacks. The country being democratic is associated with the odds of a preference for transnational attacks being reduced by 0.04 (*Odds* = 0.04, $p < 0.05$). Additionally, the odds for a preference of transnational attacks in a year increase by 13.97 when the group consists of ex-patriot members (*Odds* = 13.97, $p < 0.001$). Of the significant counterterrorism policies, deradicalization programs have the largest effect on the preference for transnational attacks. Specifically, the odds of conducting more transnational attacks than domestic attacks increase by 6.48 when deradicalization programs are being directed toward the group (*Odds* = 6.48, $p < 0.05$).

In comparison, the binary variable indicating a preference for domestic attacks in a year differs from the number of domestic attacks in a year. First, there are no significant country level predictors. Second, the only group trait that significantly influences the preference for domestic attacks is the group being ex-patriot. In contrast to transnational attacks, ex-patriot groups are associated with decreasing the odds that a group prefers domestic attacks in a year by 0.27 (*Odds* = 0.27, $p <0.05$). Controlling for all other variables, mass arrest and internment are associated with increasing the odds that a group conducts more domestic attacks than transnational attacks by 2.70 and 2.37 (*Odds* = 2.70, $p <0.001$; *Odds* = 2.37, $p <0.001$, respectively). The

measurement of time is the only significant variable that is associated with decreasing the odds of preferring domestic attacks. As time increases by a year, the odds of preferring domestic attacks decreases by 0.87, controlling for all other variables (*Odds* = 0.87, $p < 0.001$).

The results just reported compare the effect sizes of variables for each outcome variable. The next section compares results across models to identify trends and patterns found, as well as the unique relationships identified in this study.

Trends and patterns in terrorist violence

The results of this study can be used to identify trends and patterns that influence terrorist violence. As stated previously, the different sample sizes used in this study do not allow for the comparison of effect sizes. However, the similar size samples that have comparable degrees of power allows for the comparison of variables that are significant across outcome variables. Looking at the results across models (see tables 13 and 14) there are some variables that affect multiple forms of terrorism, as well as some unique relationships identified between variables and specific forms of terrorist violence.

The results show that no variable is significant across outcome variables, meaning there are no group traits, counterterrorism policies, or country characteristics that have a significant relationship with all forms of terrorist violence. The unique relationships found are an important contribution to the study of terrorism that often focuses on single forms of terrorist violence (e.g. number of attacks, fatalities, or targets). The unique findings have been previously discussed in the results, so this section discusses patterns found in this study of terrorist violence.

Excluding the location of attack outcomes, all of the predictor variables that are significant for multiple dependent variables have the same direction of association with terrorist

violence.[58] This means that counterterrorism policies and group traits were associated with either more attacks across the dependent variables, or less attacks, but not both. The consistent relationships between counterterrorism policies and more violence suggests that either these policies are enacted in response to certain levels of terrorist violence, terrorist groups may react similarly to such policies by increasing violence, or both.. This finding also suggests that the forms of terrorist violence evaluated are not defined by a single group trait (e.g. ideology), and that group traits do not have exclusive associations with these specific forms of violence.

A consistent finding is that time is associated with fewer attacks in a year for many outcomes. This suggests a general trend for groups to dissipate over time, as is depicted in graphs 7 and 8. Similarly, rewarding counterterrorism policies, when significant, are associated with fewer attacks. The results provide support for the idea that such policies are likely implemented toward groups that conduct less violence, but this finding also shows that these policies do not generate a backlash effect by being associated with more fatalities or attacks of any kind.[59]

Another finding is that the types of counterterrorism policies evaluated (e.g. punishing policies, rewarding policies, measures directed at group structure or composition, and limiting movement) have consistent relationships with more or less violence, despite the possible contrasting hypothesized relationships.[60] For example, punishing counterterrorism polices were

[58] Deradicalization programs are a predictor of fewer attacks overall, but are significantly associated with a preference for transnational attacks. Perhaps these type of programs are carried out by the home-base country, so a terrorist group chooses to conduct attacks abroad because members in the home-base country are subject to these programs. Terrorist group members abroad may not be involved in these programs, and therefore continue to conduct attacks transnationally. This suggests that this type of policy affects where a group conducts violence, but future research should investigate how and why this policy is associated with transnational attacks

[59] Deradicalization programs are associated with more transnational attacks. This is a unique relationship that is discussed in the following section.

[60] It is worthwhile to note that for both rewarding and punishing policies, the general variables (i.e. "carrot" and "stick") are significant predictors across more outcome variables than the other examples of punishing or reward policies (i.e. torture, internment; deradicalization programs, ceasefire). These results suggest the potential value of including aggregate policies for analysis of trends, though there is significant value in evaluating the unique effects of each policy, as is discussed in the following section.

associated with more terrorist violence across outcomes despite the possibility that such policies may deter violence and therefore be associated with fewer attacks. Although these punishing policies may deter violence in the short-term, the longitudinal analysis suggests that it does not have a long-term deterrent effect. If these policies did deter violence over time, then these variables would likely not be significant because they would be associated with both more and less attacks in differing years.

Punishing policies may have differing effects on various forms of violence (e.g. choice of targets, mode of attack), but these policies were consistently associated with more terrorist attacks. As previously noted, it is unclear if these policies cause a backlash effect and provoke terrorist violence, or if these policies are implemented in response to violence, or both. Future study should investigate the nature of these relationships and determine if there's a consistent direction for these relationships, and if the direction differs across types of violence. For example, it is possible that terrorist groups adapt after counterterrorism policies are implemented. A policy may make it difficult to plant bombs, so a group may choose to use another mode of attack, such as suicide bombs, that is able to circumvent the new obstacles. This change in mode of operation is an example of displacement effect. These results suggest the importance of evaluating whether these policies cause a backlash effect and/or displacement. This analysis cannot evaluate these changes over time, but it highlights relationships that can be further evaluated in future research.

Counterterrorism policies associated with terrorist group structure (e.g. leadership decapitation and mass arrest) were consistent in how they were related to violence, but in different directions. Leadership decapitation is associated with fewer attacks, incidents targeting

business, and armed assaults. In comparison, mass arrest is associated with more attacks across many different types of terrorist violence. This suggests that these counterterrorism policies, though similar in causing changes to group composition, are fundamentally different in how they affect terrorist groups. Mass arrest is found to be a significant predictor for different types of violence more than any other counterterrorism policy. As discussed with punishing policies, this finding may suggest that mass arrest is a common policy used in response to violence, though it may provoke violence, or both. Future research should identify if the effects of this policy are the same for different forms of terrorist violence.

Group traits that were most consistent across the different forms of violence evaluated in this study include group size and the number of alliances a group has with other terrorist groups. Although there is some speculation that the size of the group may have a curvilinear affect, meaning that larger groups are preferable for conducting violence until it reaches a threshold where too many group members may complicate clandestine planning and conduct, the results suggest that larger groups are able to conduct more violence with more fatalities, against a variety of targets, and using different modes of attack. The results indicate that the more alliances a terrorist group has, the better able the group is to conduct violence of many forms. Another consistent finding is that group age does not predict any form of terrorist violence. This may be a reflection of the groups selected in this study. Many terrorist groups do not last long and arguably there is something different about the groups that are able to operate for long periods of time. In this study, however, the groups selected are those that operate for at least two years within the time-frame. Arguably, the null results for group age are because these groups are all the exception having lasted for over a year. Perhaps future research can include short-lived groups to determine if group age has an influence at a lower threshold.

The results show that terrorist group ideology is associated with more unique findings than consistent findings. Similarly, the results at the country level show there is little consistency of characteristics that significantly affect multiple forms of terrorist violence. However, the results do show that a country's wealth (e.g. GDP), and the disparity of wealth within a country (e.g. GINI index) are not significant across models of terrorist violence. These unique findings have been discussed previously and are elaborated on in the discussion section of the next chapter.

Comparing mode of operation models it is interesting to see that the model for armed assaults has many more significant predictors than the model for bombings. Interestingly, the number of alliances is associated with bombings, but not with armed assault. This may be due to the fact that bomb skills are shared between groups while armed assaults can be easily carried out without direction from allies. It is also interesting that there were no significant ideological differences for bombings, while many group ideologies differed for armed assaults. Again, this may suggest that bombings are a very common mode of operation used across types of groups. Bombs include a wide scope of attacks, from small pipe bombs that are not intended to cause significant harm to massive explosions, such as the Oklahoma City bombing. This likely explains why there are no group ideological differences for this variable. Similarly, a comparison of significant results across targets of attack shows that there were no significant differences between group ideologies. This is a surprising finding that should be further investigated. This finding is elaborated on in the discussion and the coding of these variables is addressed in the limitations.

Summary

The results presented in this study show that counterterrorism policies, group traits, and country characteristics have direct effects on terrorist violence. The study also discussed methodological concerns of analyzing data with a low base-rate and analyzing data in multiple country contexts. The next chapter will elaborate on how the results of this study contribute to the literature on terrorist violence, followed by a discussion of the limitations of this study, and the policy implications.

CHAPTER 7

DISCUSSION, LIMITATIONS, AND POLICY IMPLICATIONS

The results of this study significantly contribute to the literature on political and religiously motivated violence. The discussion that follows reviews how the results of this study contribute to the literature and the development of ecological theory for terrorism. Following this discussion is a section on the limitations of this study followed by policy implications.

Discussion

This study contributes to the gap in the literature noted by Lum et al. (2006) to evaluate terrorism and counterterrorism within the unique religious, socioeconomic and political contexts (p. 9, 34). By using multilevel modeling this study evaluates the direct effects of temporal factors, group traits, and country influences. The findings contribute to prior research that has generally focused on one of these factors associated with terrorism.

This study evaluates different types of counterterrorism policies directed at multiple terrorist groups cross-nationally. Most of the literature on counterterrorism policies has focused on assessing a single policy, or a single terrorist group, or a single area of the world. Granted, by focusing on general counterterrorism tactics, this study does not identify unique measures carried out by a government to thwart terrorists; however, aspects of unique measures often fall into a counterterrorism policy being evaluated. For example, the LaFree et al.'s (2009) paper reviews six specific strategies aimed at reducing political violence in Northern Ireland. Although the current study does not evaluate the counterterrorism strategies in such detail, the methods evaluated in that study would be included as military being directed at the group, and curfews affecting group movement. This study does not identify the specific backlash and deterrence

effects of each individual military operation, however, it provides information for general trends associated with types of counterterrorism policy.

This study expands upon previous cross-national research on counterterrorism policies because it has a larger sample of countries (see Chalk, 1998; Nevin, 2003), and is not limited to the analysis of transnational attacks (see Cauley & Im, 1988; Enders & Sandler, 2000; Enders et al., 1990, 2003). By including both domestic and transnational attacks this study accounts for all of the incidents a group conducts. Additionally, this study is unique because it measures counterterrorism policies that directly affect each terrorist group, rather than only including broad policies (e.g. legislation related to terrorism in countries). This research contributes to the field where prior research has not evaluated these policies directed at groups, cross-nationally, and toward multiple forms of terrorist violence. The study is limited in the ability to decipher cause or the direction of significant relationships. However, the results highlight relationships between counterterrorism policies and terrorist violence that can be evaluated with future research with either case studies or time-series analysis.

The findings associated with group traits show support for some of the findings in prior literature. A great deal of prior literature states that religious groups are associated with more fatalities and indiscriminate attacks (see Asal & Rethemeyer, 2008b; Hoffman, 1999, 2006; Juergensmeyer, 2003; Laqueur, 1998, 1999, 2004; Lesser et al., 1999; Neumann, 2009; Rapoport, 1998; Simon & Benjamin, 2000, 2001, 2002). The results of this study show support for religious groups being associated with more fatalities, however, this study did not find a relationship between religion and civilian targets. Prior research on group traits and soft targets found that religious ideology was a significant predictor for a group choosing to attacks soft targets, however, it was not a predictor of the number of attacks targeting soft targets (Asal, et

al., 2009). Therefore, the findings in this study support what prior research has found. There may be other ways to measure attacks targeting civilians to better understand the role of ideology. Perhaps the number of attacks targeting civilians are few, but these attacks cause numerous fatalities. Future research could evaluate the targeting of civilians by the number of civilians killed in terrorist attacks in a year, rather than the number of attacks that target civilians.

Similarly, it's possible that groups with different ideologies have attacks that target a specific target (e.g. police) that also injure or kill civilians. In this study these attacks are counted for each target, though the intended target may better distinguish groups of different ideologies. It may be difficult to ascertain the intended target in an attack where many groups of people and/or places are affected. The findings in this study may indicate, however, that the association between religious groups and civilian targets is predominantly based on outlier terrorist incidents. The results of this study suggest that targets of attacks do not simply align with group ideology. For example, this study found that ethnonationalist groups are not significantly associated with targeting the government, while leftwing groups are associated with more attacks on the government. However, leftwing groups are not significantly associated with targeting businesses. In conjunction with the lack of findings for religious groups and civilian targets, this suggests that group ideology does not play as large a role in determining the targets of attacks. Future research should further investigate if limiting data to the intended target would support the hypothesized relationship between terrorist group ideology and target selection, or if these hypothesized relationships are due to research on outlier groups or incidents.

The results of this study provide some insight for the relationship between terrorist group ideology and the location of attacks. Religious groups are considered part of the contemporary terrorism trend that has no geographic boundaries and a global agenda which are thought to be

associated with transnational attacks. In contrast, ethnonationalist and leftwing groups are depicted as part of a former wave of terrorism that has more geographically focused agendas and are thought to conduct more domestic attacks (see Neumann, 2009). The results of this study show that religious groups are associated with significantly more domestic attacks than ethnonationalist groups; however, the ideologies did not differ for the majority of attacks conducted in the home-base country. Interestingly, the results for the binary variables indicating the majority of attacks were domestic or transnational do not indicate any significant differences between ideologies. This is an interesting contribution to the literature that has not empirically tested this relationship.

Another interesting contribution is the evaluation of minority and ex-patriot terrorist groups. The results suggest that terrorist group members being a religious or ethnic minority in the home-base country and ex-patriot group membership have a very large influence on the location of attacks. These terrorist group traits have not been empirically evaluated in prior literature, and perhaps these characteristics explain more variation in the location of attacks than the terrorist group ideologies, which were not significant. Ex-patriot terrorist groups are also associated with more fatalities and attacks targeting the government. These findings have implications for studying radicalization and how terrorist groups form and how this influences terrorist violence. Specifically, diaspora communities may experience radicalization differently than groups that exist in their country of origin. Drawing on radicalization research by McCauley and Moskalenko (2011), such diaspora communities may experience greater group polarization and isolation when in another country. Similarly, the group competition, or threats to the group dynamics, may be limited when the conflict is in the country of origin. Similarly, individual radicalization may be uniquely shaped for groups in diaspora communities. Arguably, the in-

group and out-group differentiation is more intrinsic for diaspora communities, which are labeled as such by both the in-group and out-group, than for terrorists that develop within their own country of origin. Members of a diaspora community may be in a better position (i.e. economically, physically safer and removed from threats in their homeland) to threaten the governing powers in their country of origin. These factors likely would influence their capacity to inflict violence as well as their psychological disposition toward violence, which should be investigated in future research.

The findings on terrorist group resources support findings found in prior research. Despite some articles that theorize that large terrorist groups may limit terrorist violence because of the complications with organizing clandestine operations (Oots, 1986), this study shows that larger groups are associated with more violence of many forms and supports other studies that have found larger groups a predictor of fatalities (Asal et al., 2008a, 2008b). This study did not find financial support from a country to be a significant predictor of terrorist violence, but this may be due to measurement (see discussion of this variable in the limitations below). There are few empirical studies that include a measurement of financial support to terrorist attacks, and it was not found to have a significant effect in those studies (Asal et al., 2008b). In this study, the number of alliances, another terrorist group resource, are found to significantly contribute to increasing multiple forms of terrorism. Prior research has shown similar findings in the role alliances play on fatalities and soft targets in terrorist attacks (Asal et al., 2008a, 2008b, 2009). These findings produce valuable policy implications that are discussed below.

The findings in this study show that the characteristics of the country where the group develops influence the violence a group conducts. These results provide support for ecological theory that suggests a person or a group's behavior is a product of individual (micro) and

environmental (macro) factors. This study contributes to the literature that has not previously evaluated how religious and ethnic diversity may influence terrorist violence. Ecological theory and literature on radicalization (see Crenshaw, 1981; McCauley & Moskalenko, 2011; Silke, 2003; Strozier, Terman, Jones, & Boyd, 2010) that isolates terrorists and generates an "us-versus-them" mindset suggest the importance of measuring heterogeneity as part of the environment. The findings support the distinct effects of religious and ethnic diversity on group violence. Ethnic heterogeneity is associated with more terrorist attacks and more domestic attacks, which suggests that ethnic diversity may generate unique conflict that future studies should investigate. In contrast, religious diversity is associated with fewer attacks targeting the government. It is interesting that different forms of diversity predict different directions of terrorist violence (i.e. ethnic diversity predicts more, while religious diversity predicts fewer attacks of different types). These distinct forms of diversity may reflect different characteristics of government that cause or alleviate different types of tension between groups and, relatedly, political and religious violence.

The findings for measures of economic disparity and wealth in a country support what prior literature has found (Abadie, 2005; Kruegar & Maleckova, 2003; Piazza, 2006). Each of these studies found little connection between measures of wealth and poverty in a country and terrorism. These studies measured the economic conditions of a country with the rate of violence in that country. This study contributes to this literature by supporting these claims with an analysis that measures the effect of these economic factors in relation to terrorist groups, which has not been previously conducted.

The findings of this study contribute to the prior research that has evaluated the influence of a democratic regime on terrorist violence. Past research has not been conclusive about the role

of democracy (Eyerman, 1998; Li, 2005; Nemeth, 2006). The results neither confirm nor deny the various schools of thought on the issue that suggest democracy can enable terrorism by freedom to assemble, or decrease the threat to terrorism by enabling legitimate political involvement. The results of this study show that democracy is not a significant predictor for the number of attacks a group conducts, fatalities, targets, or the mode of attack; however, democracy is a significant predictor for the location of attacks. The analysis shows that democracy predicts more domestic attacks, and fewer transnational attacks. These findings may suggest that democratic regimes inspire unique localized conflict though these groups may be less violent. This highlights the possibility that there may be significant differences in the types of groups that develop in democracies. If this is the case, it may explain the conflicted findings in prior research and it suggests the inherent problem of prior research solely focusing on the rate of violence in democracies and not accounting for the terrorist groups operating in them. Future research should investigate whether country characteristics predict the types of terrorist groups that *form* there, and perhaps a separate analysis should investigate if democracy and other country characteristics influence the types of terrorist groups that *operate* there.

Prior literature has not investigated the protective effect of upholding human rights in a country. The Physical Integrity Rights Index is found to be associated with fewer fatalities and a lower rate of fatalities. The unique role that protecting human rights has on fatalities in terrorist attacks contributes to the literature and to ecological theory. To further develop ecological theory in relation to terrorism, future research should investigate the how *failure* to uphold human rights effects the country context and influences forms of terrorist violence. It is likely that countries that violate human rights provoke people to retaliate; however, it may also generate fear that would inhibit groups from carrying out such violence. Future research that evaluates this

relationship should consider evaluating a curvilinear effect. Specifically, there may be a threshold where severe violation of human rights limits political violence, but countries that violate human rights to a lesser extent may experience more terrorism, while countries with no human rights abuses suffer less political violence. Evaluating the relationship between human rights abuses and political violence would contribute to the development of ecological theory and its application to terrorism.

Although country characteristics were found to influence terrorist violence it is interesting that the results for the MMREM analysis did not improve the results by explaining more variance in the data, or decreasing the deviance statistic measurement. This may be because many groups that conduct transnational attacks generally operate in locations that are nearby and are comparable to the home-base country on the characteristics evaluated in this study. If the country context does not dramatically differ between the home-base country and the countries attacked abroad, then MMREM may not improve the analysis. Given how few terrorist groups in the sample operated transnationally on a consistent basis, future research should select only terrorist groups that have operated transnationally to determine if MMREM analysis highlights different country effects on these groups. It is possible that there may be distinct differences in the effect of country characteristics for these groups that is not detected when groups that focus their attacks in their home-base country are included in the analysis. It is likely that groups that attack countries that are dramatically different from their home-base country do so in response to these countries' foreign policy and/or cultural practices, as well as differences noted in this study. In addition to the country variables used in this study, future research on terrorism should include measurements of foreign policy and cultural predilections.

The moderation relationships evaluated in this study are a significant contribution to the literature, which has previously focused on a single unit of analysis. As previously stated, the diversity in a country has not been previously evaluated in relation to terrorism. Similarly, this is the first study to evaluate how ethnic diversity has a unique effect on ethnonationalist terrorist groups. The results show that these groups conduct fewer attacks in ethnically diverse countries. Future research should evaluate if the change in diversity in a country has a unique effect on terrorist groups, and also investigate whether the integration of minorities and immigrants helps explain the results related to ethnic diversity.

This study also shows how a counterterrorism policy can have different effects on different types of terrorist groups. Specifically, this study found that mass arrests have less influence on the number of armed assault attacks conducted by large terrorist groups than small groups. Interestingly this relationship was not significant for the number of attacks, fatalities, targets, or other modes of attack (i.e. bombings). This finding, in conjunction with the finding that ethnonationalist groups increase in the number of armed assaults over time, suggest future research may look at these groups closely for a case study to better understand the meaning behind these findings. This study also found that while most terrorist groups have fewer fatalities over time, religious groups have a significantly different trajectory almost maintaining the same number of fatalities over time. The differences in terrorist group violent behavior over time may provide insight into the long-term trajectories for such groups. Future research should expand the time-frame of this study (i.e. 1998-2007) to analyze if waves of terrorism might be depicted as types of terrorist groups may wax and wane over time while others may mobilize. These moderation findings support and contribute to the development of ecological theory and how group and environmental factors interact, while also highlighting the need for future terrorism

research to model the units of analysis properly to evaluate these unique moderation relationships.

The current study offers information for the development of ecological theory applied to terrorism. Additionally, the results fill in gaps in the literature on terrorism that has focused on counterterrorism policies, group traits, or country characteristics. Although this study offers a significant contribution to the field, the study does have limitations that are addressed in the next section.

Limitations

The statistical method is well suited for analyzing ecological theory driven research; however, there are limitations to this study. The limitations regarding the sample, the data, the methodology, and the general study of terrorist violence are discussed in the following sections.

Sample limitations

The results of the study rely on the sample and the accuracy of variables included in the analysis. The sample in this study is limited to terrorist groups that committed two attacks and existed for at least two years in the study. This means that the findings should not be generalized to groups that only conduct one attack or to attacks perpetrated by individual terrorists. By focusing on terrorist groups this study does not include loners, or perpetrators of lone wolf attacks. Research has found that loners who are unaffiliated with specific terrorist groups and conduct violence alone, are responsible for large percentage of attacks. In the United States roughly 30 percent of attacks between 1990 and 2010 were perpetrated by loners (Gruenewald, Chermak, & Freilich, 2013). This study does not include loners for theoretical and methodological reasons. Theoretically, individuals and terrorist groups likely have distinct factors influencing their violent behavior. In terms of method, these are separate units of analysis

and it would be inappropriate or misleading to interpret aggregated results. Lone wolves could only be included in the analysis if each terrorist actor's individual violent behavior was being evaluated; however, this data is not available. Even if these perpetrators were theoretically and methodologically suitable, the restrictions on the sample would likely have excluded these groups because most lone actors are only able to conduct a single attack and are short-lived. Without loners or groups that exist for a single year or conduct fewer attacks being included in this study, the results of counterterrorism policies found cannot be generalized. Individual actors may not respond to policies the same as their group counterparts. Future research should investigate how loners and short-lived groups are influenced by counterterrorism policies, and if it is different from the terrorist groups in this sample.

There are limitations in this study regarding the operationalization of terrorism across datasets. The BAAD1 dataset is the only cross-national terrorist group dataset that has been used in prior research. The BAAD data quantifies the Memorial Institute for the Prevention of Terrorism (MIPT) data, which is available as the Terrorist Organization Profiles (TOPs) at the START website. A significant limitation is that there is no known inclusion criteria or stated definition of terrorism for the MIPT data.[61] As a result, this study relies on the GTD definition that identifies acts that qualify as terrorism. The sample derives from perpetrators of terrorist incidents in the GTD that are also included in the BAAD datasets.

As stated, the sample of this study was limited to the terrorist group data available in the GTD and the BAAD datasets. Excluding perpetrators listed with vague descriptors that do not refer to specific terrorist groups, there are 145 groups listed as perpetrators in the GTD that conducted two or more attacks but are not used in this analysis because they are not included in

[61] Personnel at START were contacted for clarification and they said there is no more information than what is provided on the website. Emails were sent to the personnel from the MIPT and there was no response.

the BAAD1 and BAAD2 data. The sample used in this study represents 50.5% of the actual groups listed as perpetrators of two or more attacks in the 1998-2007 time period, and includes 83.7% of the total attacks by these terrorist groups in that time period.[62] It is worthwhile to note that 17.7% of the perpetrators listed in the GTD in this time period are vague references to perpetrators (for more information see the footnote below). [63] This highlights a significant limitation to this study. A great deal of terrorism research relies on local, national, and global law enforcement, media, and governments to accurately attribute attacks to terrorist groups, and then for the information to be accurately coded into the database. There are many possible points where error can, and likely does, occur. This is a significant limitation to this study, and all studies evaluating cross-national trends or relying on secondary source data. Despite this limitation, it is argued that terrorism is "propaganda by deed" and many groups seek recognition for their attacks (see Carr, 2006; Hoffman, 1999). As a result, relying on open-source data is likely more reliable for terrorism than for other types of crime. It should be noted that the relationship between counterterrorism policies and terrorist groups is significantly influenced by whether the governing powers are able to attribute terrorist attacks to a known group. Therefore,

[62] The GTD lists a total of 356 different perpetrators of 2 or more attacks between 1998 and 2007. Of these listed perpetrators, 293 are known terrorist organizations. This study includes 148 of these known groups in the sample (50.5%). The 293 groups conducted a total of 6,725 attacks during this time-span, and 5,627 incidents were conducted by the 148 terrorist groups in this sample (83.7%). The remaining 63 perpetrators listed that are not specific groups are responsible for a total of 11,068 attacks, 8,948 of which are coded as "unknown" perpetrators (80.8%).

[63] Perpetrators are listed as "unknown," "youths," "Islamist extremists," "other," "individual," "Chechen Rebels," "Maoists," "Algerian Islamic Extremists," "gunmen," "Thai Islamic Militants," "Hutus," "Albanians," "Militants," "Naxalites," "Anti-Abortion Activists," "Palestinians," "rebels," "Muslim militants," "separatists," "Protestant extremists," "anti-government guerrillas," "Muslim rebels," "animal rights activists," "Muslims," "Right-Wing Paramilitaries," "militia members," "ninjas," "paramilitaries," "Left-Wing Extremists," "Muslim Separatists," "opposition group," "Sunni Muslims," "Sympathizers of Al-Qa`ida Organization," "White Extremists," "anarchists," "Anti-Government Rebels," "bandits," "extremists," "Irish Republican Extremists," "Israeli Extremists," "Skinheads," "Algerian Moslem Fundamentalist," "armed people," "guerrillas," "insurgents," "Jewish extremists," "miscreants," "Muslim Fundamentalists," "neo-Nazi group," "rebel military unit," "right-wing group," "Tamils," "Terena Indians," "villagers," Yemenis," "Rastas," "Tuaregs," "cannibal army," and "Ijaw militants."

it is likely that the dynamic relationship is more accurately evaluated by focusing on the attacks that are attributed to the group.

The sample of data is also complicated because terrorist groups are modeled within the country of origin, or all the countries the group operates in in MMREM, but there are some areas that are territories and not designated as a country. These areas, which include many contentious areas where terrorism is rampant, include Kashmir, the West Bank and Gaza Strip, and Northern Ireland. There is no country-level data specifically available for these locations. As such, groups in these areas are coded for the country in power in that region (e.g. United Kingdom in Northern Ireland) or the country that the group advocates for if it is shown the group also operates in that location (e.g. Irish Republican Army in Ireland). There may be serious limitations with modeling country level factors for these groups, however, coding counterterrorism policies directed at the group regardless of what country is implementing the policy helps mitigate the concerns of limiting analysis to the home-base country for these groups.

Another limitation of the data is the time-span. The data is limited to groups operating between 1998 and 2007. Having more data on perpetrators in the GTD and expanding the time frame from 1970 to 2010 would provide a larger base-rate for outcome variables and expand the sample to have more justification to generalizing the results.

Data limitations

The data originally collected for this project and the information obtained from other data sources was all collected using open-source research. Research on counterterrorism efforts often struggles with the concern that there are differences in what counterterrorism strategies countries acknowledge they are implementing, and what actions are taking place on the ground. This is a significant limitation if relying solely on government sources; however, this study seeks to

triangulate open-sources of information to determine what actions were directed at each group in each year. Although there are limitations regarding open-source data, the group-specific counterterrorism variables focus on actions directed at the group rather than relying solely on legislation that is meant to apply generally to all terrorist groups. The data collection efforts used in this study were rigorous and well vetted in the best efforts to obtain reliable and valid data.

Relying on open-source research for a cross-national project poses a language challenge as many groups and countries included in the study do not use the English language. Fortunately, the GTD has people fluent in six languages that contribute to their data collection. The original data collected for this project did not have that benefit. Though there were some research assistants who are fluent in unique languages, there were no groups included from these areas (e.g. Poland). As a result, the information reviewed was primarily in English. The Westlaw search engine, however, provided numerous sources in the original text format and in the translated format. The amount of information found in English articles or in articles translated into English was consistently found for groups from all countries in this sample. Some areas of the world have terrorism data websites that significantly contributed to finding information on variables (e.g. South Asian Terror Portal). While collecting data, it was apparent that the amount of open-source data available for a group was significantly related to the number of attacks a group conducted, rather than what country the group operates in and what language is used there. Further analysis should be conducted to confirm this argument.

A related limitation for this research, as previously mentioned, is the fact that data is primarily available for terrorist groups, rather than the individual group members. Ecological theory and the causal theory presented by Crenshaw (1981) suggest the value of including individuals in terrorist groups as another level of analysis. Although there is data on terrorists

within groups (e.g. John Jay and ARTIS Transnational Terrorism (JJATT) database), the clandestine nature of terrorist groups makes it complicated to assume that the individuals known are representative of all members of a group. Additionally, this data is currently only available for some of the most recent and infamous terrorist groups so a comparative cross-national analysis would be incomplete.

There are data limitations for the dependent variables and at each level of the analysis that was included in this study. Unfortunately, the GTD does not distinguish civilians from private property. Although it is possible that in every case both civilians and private property were targeted, it is not clear if this variable includes cases where *only* private property was targeted. The variable description indicates that it refers to locations where indiscriminate targets would be intended (i.e. "public areas including markets, commercial streets, busy intersections and pedestrian malls"), but may include an attack on a personal vehicle that did not intend to injure a civilian (e.g. fire-bombing of cars belonging to faculty using mice for biomedical research at University of California Santa Cruz in 2008).

It is also necessary to acknowledge that the measurement of fatalities per attack is complicated by collapsing years where a group did not have an attack, and therefore had zero fatalities, with years that a group did conduct attacks but did not have any fatalities. Future research should consider aggregating this rate to the group level to capture the rate of fatalities per attack throughout the 1998 to 2007 time period. Aggregated at this level each group would have at least two attacks and this complication would be mitigated.[64] The measurement of domestic and transnational attacks was similarly complicated. The count of attacks for predicting

[64] A brief evaluation of the aggregated data that excludes outliers shows that 27.7% of the terrorist groups (41 groups) did not have any fatalities attributed to them within this time period. Note that 50% of groups have 13 or more fatalities, and 25% of the sample had 105 or more fatalities over these 10 years.

the location was complicated by the total number of attacks a group conducts. The proportion of attacks that were domestic and transnational in each year were calculated but the shape of the distribution was not able to be modeled in the HLM program, so dichotomous variables indicating where the majority of attacks took place were calculated. Future research should investigate whether the necessary distribution for the proportion data can be evaluated with a different program.

Lastly, there were a number of dependent variables (e.g. police and military targets, suicide attacks, assassination) that were not able to be analyzed due to the lack of variation in the data and an inability for the statistical analysis to converge. It is suggested that these variables be aggregated to the group level and a two-level model be evaluated. This would evaluate the total number of attacks for each of these dependent variables throughout this time period, rather than per year. It is possible to also aggregate the counterterrorism policies to the group level as well, however the dynamic relationship will not be modeled and there may be concerns of having enough statistical power to detect accurate results when reducing the sample size to 148 terrorist groups within 48 countries and including additional variables at the group level.

The first level of independent variables address the counterterrorism policies. There are some limitations with uncertainty of whether some variables adequately capture how a policy may have different effects on groups. For example, mass arrest may have different effects depending on the size of the group, the number of members arrested or what percentage of the group members were arrested, and how many mass arrests are conducted in a year. It was discussed whether to code mass arrest as a continuous variable indicating the number of members arrested, however this was not done because often times it was unclear how many group members were arrested in a single case, let alone how many were arrested in a year.

Similarly, leadership decapitation encompassed when a leader was killed and/or when a leader was arrested. It would be worthwhile to distinguish these two forms of leadership decapitation, but it would be even more worthwhile if there was some measurement of the role of the leader in the group prior to his/her removal. Including a variable of group structure that also notes the degree of power and charisma of the leader may help explain the effect of leadership decapitation. Ceasefire is another contentious variable that may not properly capture the intended counterterrorism construct. Coding and reviewing cases showed that there are many groups and countries that agree to informal and formal ceasefires, but continue to conduct violence (on both sides) regardless. It may be important to qualify an effective truce from a ceasefire that exists only on paper. Unfortunately, there were other counterterrorism policies this project attempted to collect (e.g. counterterrorism financing efforts, stop and frisk, hardening targets), however, there was inconsistent reporting and information about these variables so they were not included in the analysis. It is possible, however, that these types of counterterrorism policies have a significant effect on terrorist group behavior. There may be different effects depending on whether a foreign country implemented the policy directed toward a group, or if the counterterrorism policy was carried out by the home-base country. The data is collected for comparison of domestic and foreign policy in future study.

There are some limitations with the terrorist group level data as well. The state support variable indicates if the terrorist group had ever received financial support from a country. Although this may be of particular interest to some studies, it does not necessarily represent the amount of financial resources available to the group. Future research efforts should be made to estimate (i.e. categorize) the amounts of funds a group has (coded over time) or the maximum amount the group has ever had available. Also at the terrorist group level, there may be a benefit

to reorganizing terrorist group ideologies into different and clearer categories. The results surprisingly show there are few aspects of terrorist violence that differ among group ideologies. This is a very interesting finding, and it may be due to the outliers being excluded from analysis, but further analysis should investigate whether or not it is due to how the BAAD dataset differentiated ideological groups.

At the country level it would be worthwhile to include indicators of how variables change over time. Though most variables changed little throughout this time period, it may be worthwhile to code the change (and direction) of heterogeneity for countries. Nations are experiencing rapid growth (e.g. economic, social) and unprecedented diversification. This is occurring in some places faster than others, which may have different influences on political and religiously motivated violence. The speed of changes in ethnic and religious heterogeneity may have greater effects on terrorist violence than the degree of diversity that exists in a country. Perhaps the findings of this study reflect violence in response to population change, rather than to diversity itself. Future research should further investigate this relationship.

Methodological limitations

The longitudinal multilevel modeling has significant advantages over other statistical methodology. However, this type of modeling is unable to account for the nuanced influence of historical change. The current study seeks to identify the trends and patterns in terrorist violence. This methodology is not able to elaborate on the unique relationships between terrorist groups and the environments in which they operate. Future qualitative research should be conducted to elaborate on *how* and *why* the patterns identified in this research exist.

Additionally, it was noted previously that this method is unable to make causal inferences. Future research may seek to code the data with dates for specific policies and the

dates of terrorist attacks. It may be possible to conduct time series analysis to further investigate the relationships identified in this analysis.

Another methodological issue to discuss is the exclusion of outliers. As stated previously in the paper, outliers skew data as well as the analysis and unduly affect the results. The results of this study, therefore, excluded the years that exceeded the outlier threshold for each dependent variable. Due to the low base-rate for the outcome variables, it was decided to delete the outliers specific to each model. The samples maintained all 148 groups within 48 countries and the sample sizes, though different, are similar which justifies the comparison of significant variables across models. This limits the ability to compare effect sizes across samples, however, this decision improves the analysis of each outcome variable by including the maximum number of cases in the analysis. It is argued that including all of the groups in the analysis, rather than deleting groups that had outliers, allows the analysis to optimally identify terrorist trends. The results should be interpreted as trends and should be carefully compared to case studies that focus on exceptional terrorist incidents.

Despite these limitations, the results of this project highlight how different country contexts may have different effects on similar terrorist groups, and how similar macro-level contexts may have different effects on different types of terrorist groups. This study provides significant evidence for how ecological differences account for the vast heterogeneity among terrorist groups, and has important policy implications.

Policy Implications

There are many significant policy implications from this research that address counterterrorism tactics directed at groups, how policy may influence terrorist groups uniquely, and how the larger policies of a country (e.g. immigration) may influence terrorist violence.

The counterterrorism policies evaluated in this study show different relationships with violence. The rewarding policies, as previously stated, were significantly associated with less violence. Whether this is because these policies are directed at terrorist groups that are already conducting less violence or if they are causing groups to decrease violence, the results show that these policies do not produce more violence. This suggests that these policies are effective for the groups that are subjected to them, and it may suggest that such policies should be extended toward other groups to determine if these policies would have the same effect.

Punishing policies may provoke a backlash effect. The results cannot confirm this, but policy makers should be aware of this possibility rather than assuming such measures will cause a terrorist group to decrease in violence due to fear or inability. Although the construct of the variable for leadership decapitation has limitations, the results suggest that removing a group leader has a significant effect on terrorist violence. Removing a leader is associated with fewer attacks. This suggests this policy was not implemented because of a large number of attacks by the group in that year, and the results suggest that generally speaking, this policy does not cause a backlash effect and result in more terrorist violence. It should be evaluated what type of groups are subject to leadership decapitation and if this has a consistent effect. Additionally, further investigation should be done to inform policy makers the best mode of removing the leader (e.g. arresting or killing).

Policy makers should note that checkpoints are associated with a higher rate of fatalities in terrorist attacks. This target hardening procedure may protect certain locations and groups of people, but it also provides a new venue for attacks where people are gathered. Perhaps law enforcement can change the environment of checkpoints, though this may be a costly prospect, so that few people are vulnerable to attack. For example, snaking people or vehicles through

areas with substantial walls that would minimize the number of people injured or killed in an attack. Another idea is to use mobile checkpoints, as were used in Northern Ireland, so that people do not anticipate the location of a checkpoint and have more complications planning an attack.

There are many group traits that are shown to affect terrorist violence that may be subject to policy measures. Group size is associated with many different forms of terrorist violence. Policies targeting recruitment and terrorist group propaganda should be implemented to reduce group membership. Similarly, the number of alliances to other terrorist groups has a significant influence on violence. Efforts can be made (or maintained) to limit communication between groups by trafficking the internet closely to identify how groups communicate and support each other. It is important to note that the findings in this study show how group traits influence the impact of counterterrorism on terrorist violence. Mass arrests have less influence on armed assaults for larger groups. Areas that are dealing with large groups conducting armed assaults may have greater success dealing with these groups using another counterterrorism tactic.

There are some differences in how various ideologies conduct violence. It should be noted that religious ideology plays an important role in the number of fatalities, but it is not the only ideology that causes fatalities. Policy efforts to promote religious teachings that oppose killing among religious radical terrorist groups should also consider secular, ideology specific programs for groups that are not religious but associated with large number or rate of fatalities (e.g. "other," religious-ethnonationalism, and "contain ethnonationalism").

The results highlight how ex-patriot groups are associated with fatalities as well. Although such findings may provoke fear of immigrants and refugees, and encourage more limiting policies, the results also indicate that these groups are more likely to conduct

transnational attacks. This may suggest ex-patriot terrorist groups are conducting violence related to a conflict in their country of origin. Policy makers should be sure to investigate people entering the country and whether they are associated with violence or conflict in their country of origin, and if they have associations with other related ex-patriots in the country they are entering. Additionally, increased monitoring of ex-patriots travel may be a valuable tool for decreasing violence.

On a similar note, ethnic and religious diversity are associated with countries policies. The results for the religious heterogeneity suggest the value of promoting religious freedom. Although this type of diversity is not associated with fewer attacks overall, it is associated with fewer attacks targeting the government. In contrast, ethnic diversity is associated with more terrorist violence. Countries could implement educational awareness campaigns to promote understanding between different ethnicities and cultures in a country in hopes of developing greater empathy between groups. It should be noted, however, that ethnonationalist groups conduct fewer attacks in diverse countries, so a country should note how the type of group is related to the environment. Similarly, national and international campaigns for human rights should be promoted as the number of fatalities is significantly decreased in areas that protect human rights.

The results and policy implications from this study suggest many areas of future study, which are summarized in the following section.

Future research

The results and limitations of this study provoke interesting questions for future research and are summarized in this section. First, the dependent variables may be adjusted or changed for further evaluation. The four outcomes that could not be evaluated (i.e. police, military targets,

suicide attacks, and assassinations) and the number of fatalities can be aggregated to the group level and a two-level analysis could be run. The implications in relation to longitudinal counterterrorism measures would be limited, but this may allow these outcome variables that are not dispersed enough in time to be evaluated. Aggregating fatalities would distinguish groups that had attacks that did not cause any deaths from groups that had no attacks in the year, as it is currently coded. To better evaluate the targets of attacks, future research may code incidents according to the intended target. There may be serious complications with identifying the intended target(s) in attacks where there are multiple targets. Identifying the intended target based on which group is listed first in the GTD has complications and may suffer from circular reasoning, where coders may assume an intended target based on a group's ideology. For example, an attack that caused civilian and police casualties may be assumed to be targeting the civilians foremost because the group is religious.

This study also highlights future research ideas associated with counterterrorism policies. Most importantly, the cause and direction of counterterrorism policies associated with more violence need to be further investigated with case studies or time-series analysis. Additionally, the counterterrorism variables collected for this project indicate if the policy was conducted by the home-base country or by a foreign country. If the policy was implemented by a foreign country it is noted whether the policy was carried out in the home-base country, abroad, or both. There are many studies that can be done with this data. For example, studies can evaluate whether group ideology predicts the type of policies implemented toward them, what countries conduct counterterrorism policies against foreign terrorist groups at home or abroad, and if the same counterterrorism policy has different effects depending on whether it is implemented by the home-base country or a foreign country.

There are many studies that can be done to further investigate how terrorist group traits influence violence. Future research should investigate other categorizations of terrorist group ideology to determine if the categorizations used in this study limited the ability to detect effects on targets of attacks. The findings in this study did highlight the importance of ex-patriot group membership on terrorist violence. The potential differences in radicalization for ex-patriot groups should be investigated to determine if this helps explain differences in group violence. This study did not find financial support to be a significant predictor in almost all models evaluated. The measurement of financial resources available to terrorist groups should be improved to better capture the influence of fiscal means on group violence. Additionally, analysis should be conducted with short-lived groups that measure group age in months which to determine if terrorist group age has an influence on group violence at a lower threshold than is analyzed in this study. Prior studies have compared extremist groups that are violent to those that are non-violent (see Caspi, Freilich, & Chermak, 2012; Chermak, Freilich, & Suttmoeller, 2013; Smith, Damphousse, 2009). Future research could evaluate how group traits and country characteristics predict whether extremist groups will be violent.

The findings in this study provide insight into future research at the country level as well. It would be worthwhile to determine if the type of country predicts the types of groups that develop there, and then a related but separate question is, whether country characteristics predict the types of groups that operate there. The findings in this study suggest more research needs to be done to evaluate how ethnic and religious diversity influence political and religiously motivated violence. Specifically, future research should investigate how ethnic diversity influences the majority and minority populations to determine if the relationship is due to the change in diversity or the degree of integration, as well as how religious heterogeneity influences

group choice of targets. This study also found interesting results for how the protection of human rights influences terrorist violence and distinguishes this effect from the protective role that democratic regimes may have. Future research should evaluate how failure to uphold human rights, as well as the cultural values orientation of a country influence terrorist violence.

The results regarding moderation effects are a significant contribution of this study to the field of terrorism research and suggest many new areas of future research. Specifically, the results indicate that mass arrest and group size are uniquely associated with the number of armed assaults, but not other forms of terrorist violence. Relatedly, pure ethnonationalist groups conduct more armed assault over time, while other groups are associated with a decrease in armed assaults. Future research can investigate if this is a process of displacement in ethnonationalist tactics. The ethnonationalist groups also conduct fewer attacks in countries with greater ethnic diversity. Like the influence of ex-patriots on group membership, this may imply differences of radicalization for ethnonationalist groups in different locations that should be evaluated in future research.

There are a number of ways that the method of analysis could be altered in future research for further study. MMREM analysis can be conducted with only groups that conduct transnational attacks to determine if including the analysis of other countries improves the analysis for these groups. Additionally, the time frame can be expanded to determine if waves of terrorism are depicted over time. Future research can further investigate how outliers influence the analysis of terrorist violence.

Summary

The current study provides a significant contribution to the literature on terrorism in multiple ways. It contributes to the development of ecological theory and its application to

religious and political violence. Additionally, the results of this empirical study can inform policy-makers about the effects of counterterrorism policies. The study contributes to developing knowledge about different levels of analysis and how they affect terrorist violence, while also highlighting the value of advanced statistical methodology. Lastly, the results of this study provide a justification for many areas of future research.

CHAPTER 8

CONCLUSION

The current study contributes to the study of terrorism in multiple ways. First it extends the use of an interdisciplinary theoretical framework. Ecological theory informs this study in situating how different levels of analysis affect each other. Although ecological theory has been used as a framework for the development of certain datasets used to study terrorism (e.g. Minorities at Risk Behavioral Organization Database (MAROB)), the relationship between terrorist violence and the environment in which they operate has been studied in very limited contexts, or by focusing on how a country effects terrorist violence independent of the groups operating in those countries. Ecological theory supports the dynamic relationship between actors and the environment, which helps justify the use of contrasting hypotheses related to counterterrorism policies. The dynamic relationship emphasized by this theory also supported the hypothesized moderation relationships between the country, terrorist groups, and counterterrorism policies. Ecological theory helps explain why these relationships exist and how to interpret these findings.

Relatedly, this study contributes to the literature by using a new methodological approach, multilevel modeling, to evaluate the relationship between groups and countries on terrorist violence. Statistical research that has been used to evaluate trends in terrorism focus on either the group or the nation level, and have not accounted for clustering at the group-level or the country-level. In addition to modeling the data, this study contributes to terrorism research by collecting longitudinal data on counterterrorism policies directed toward terrorist groups. The data collected can be analyzed in multiple ways in future research to evaluate trends in

counterterrorism policies across countries, as well as identify if the type of terrorist group predicts the use of certain counterterrorism policies.

The results of this study provide support to relationships already analyzed in the literature, while also adding a contribution to how different terrorist group traits and country characteristics influence various forms of terrorist violence.

Figure 1. Ecological diagram situating individuals within terrorist groups within the country of operation.

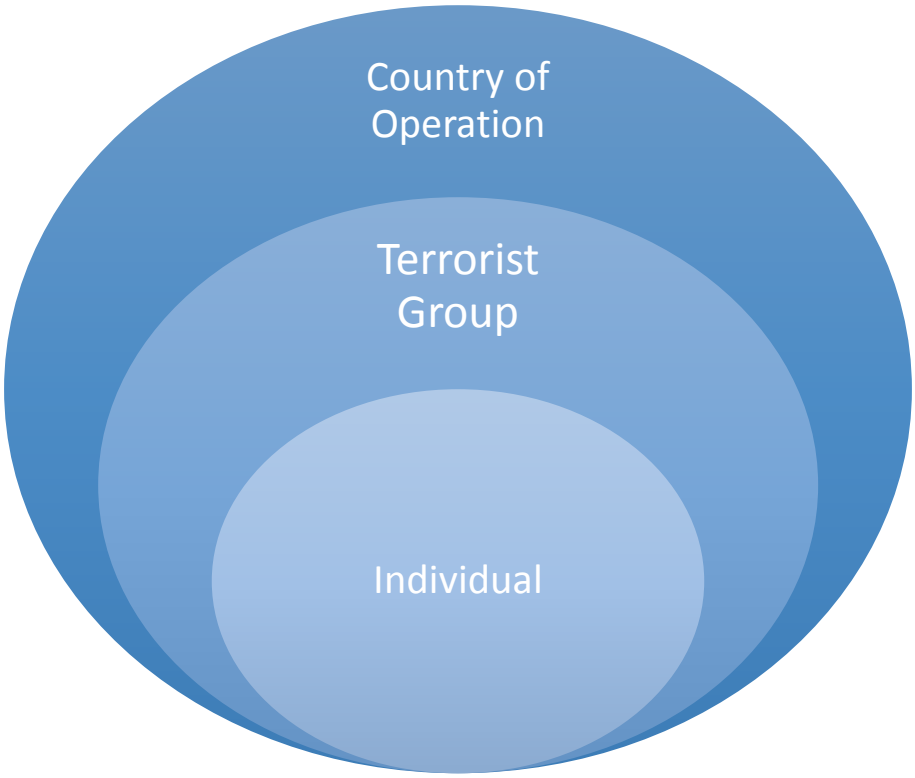


Figure 2. Map of the world with the 48 countries included in analyses depicted in black.

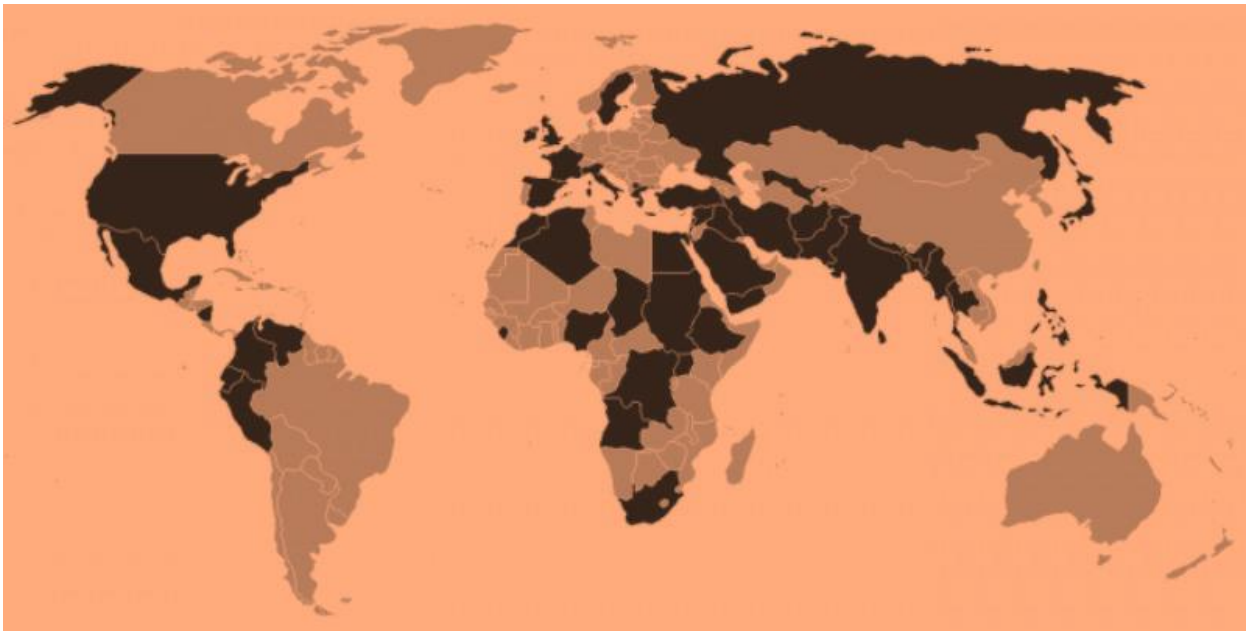


Figure 3. Diagram depicting years of operation (level 1) within the terrorist groups (level 2), within the home-base country (level 3). Terrorist group 1 operates between 1998 and 2001 in Country A, while terrorist group 2 operates from 2000 to 2003 in Country A. Terrorist group 3 operates in Country B from 2005 to 2007, while group 4 operates in Country B in 2004 and 2005.

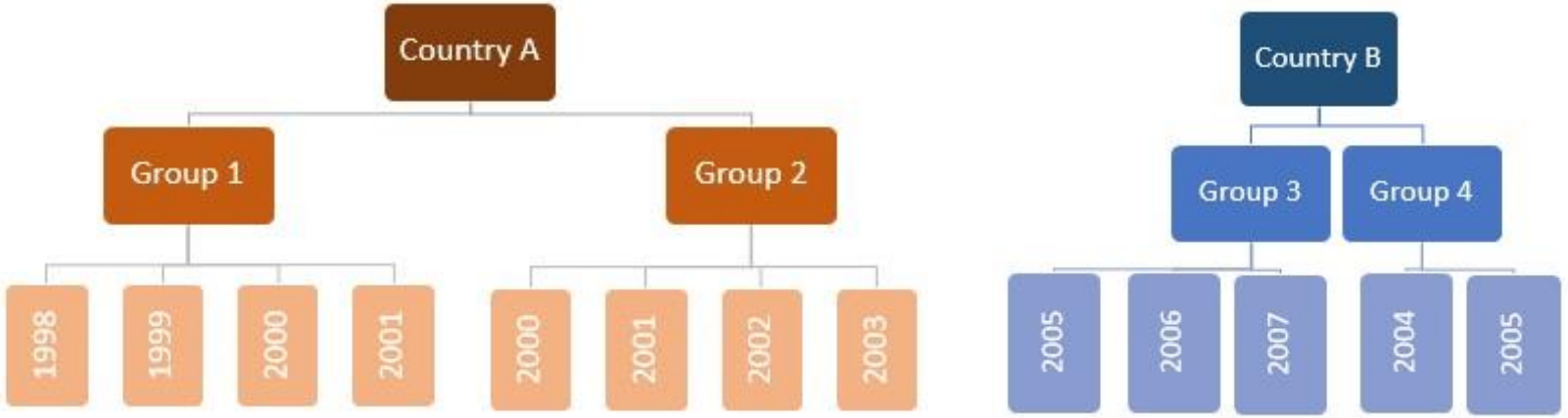
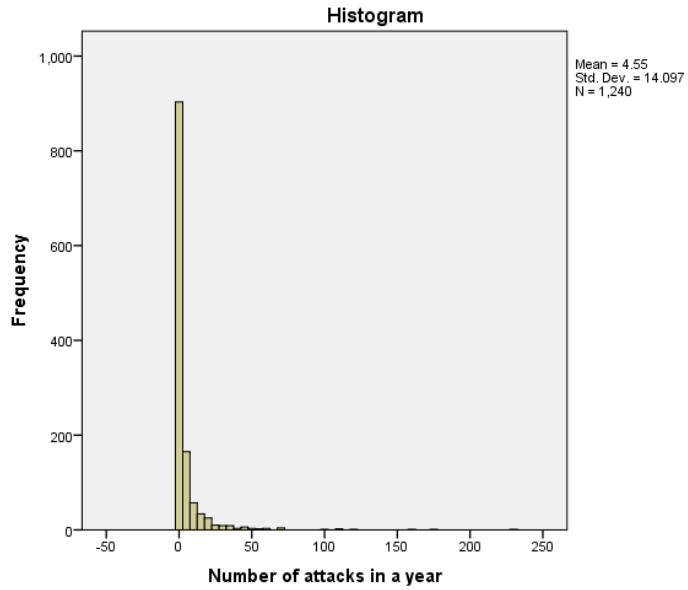


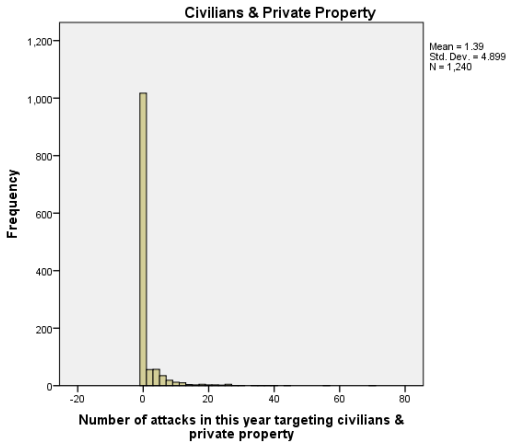
Figure 4. Diagram depicting terrorist groups within the countries of operation. Terrorist group 3 operates in both Country A and Country B and multiple membership random effects modeling (MMREM) is necessary to model both countries in the analysis.

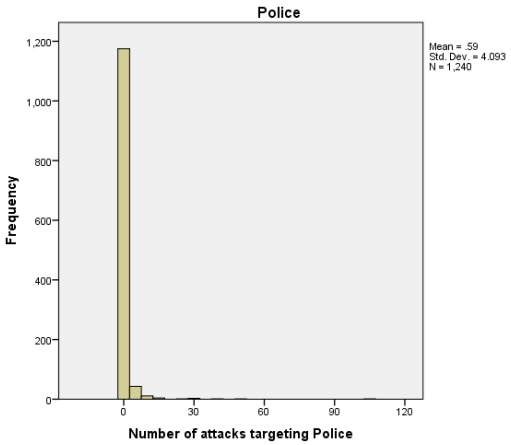
Figure 5. Histograms showing the skewed distribution of count dependent variables.

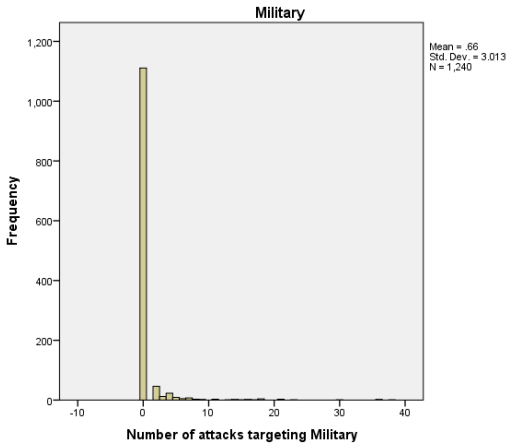
Total number of attacks in each year.



Targets:







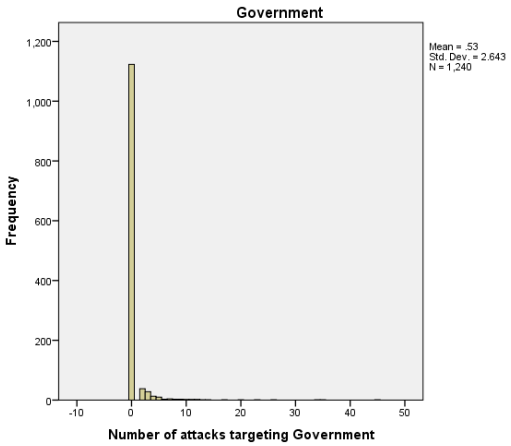
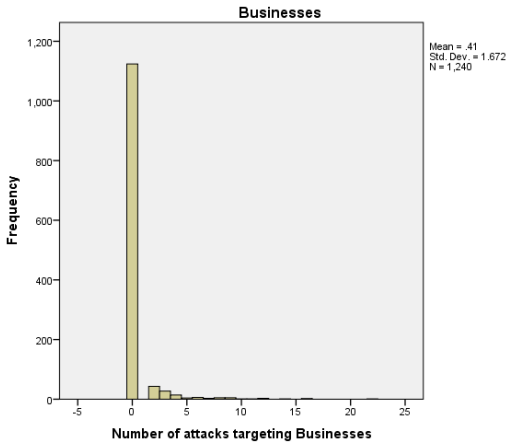
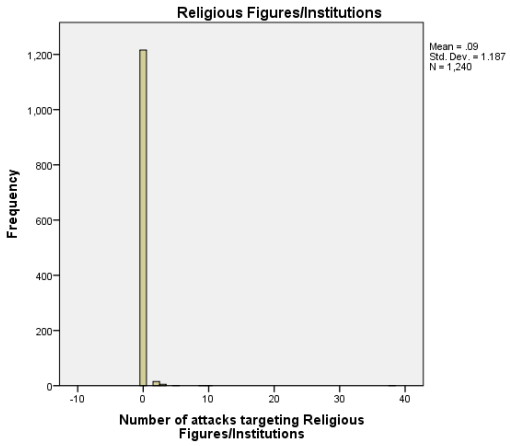
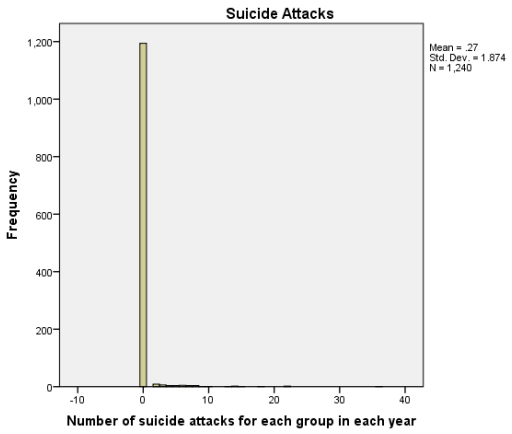


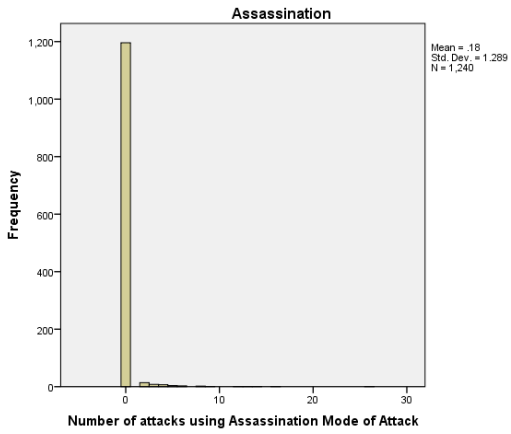
Figure 5 cont. Histograms showing the skewed distribution of count dependent variables.

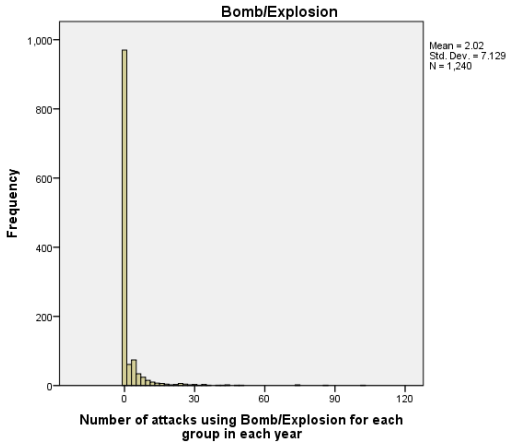




Mode of Attack:







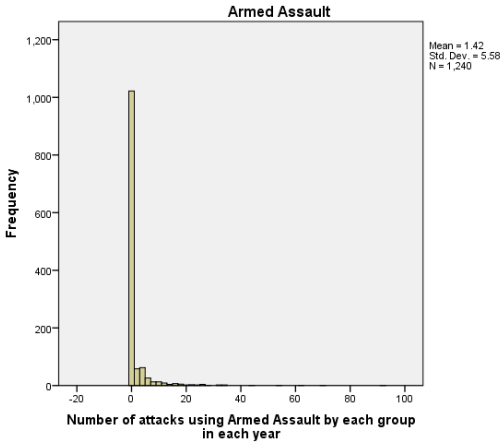
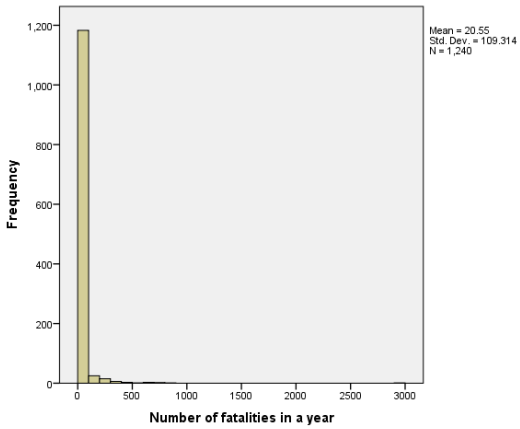
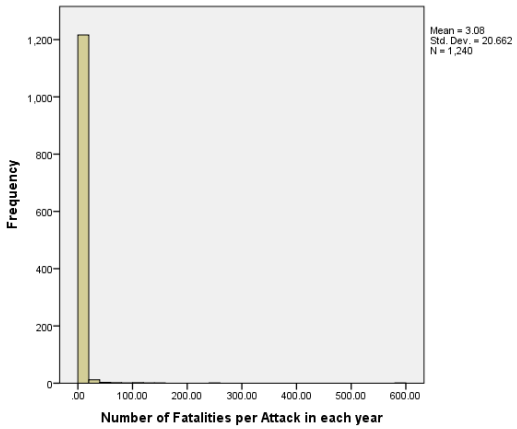


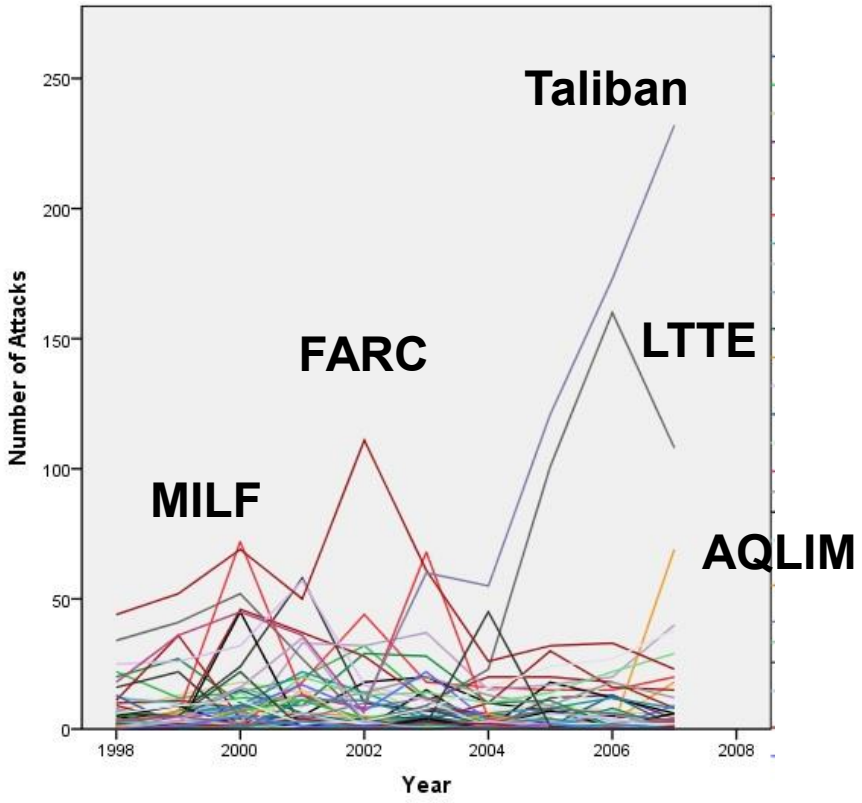
Figure 5 cont. Histograms showing the skewed distribution of count dependent variables.

Fatalities:





Graph 1. The number of attacks by group over time.[65]



[65] MILF is the Moro Islamic Liberation Front in the Philippines, FARC is the Revolutionary Armed Forces of Colombia, the Taliban is in Afghanistan, the LTTE is the Liberation Tigers of Tamil Eelam, also referred to as the Tamil Tigers, in Sri Lanka, and the AQLIM is the Al-Qa'ida in the Lands of the Islamic Maghreb based in Algeria.

Table 1. Aims and hypotheses for the current study.

Aim 1: Counterterrorism Policies
H1a: Rewarding counterterrorism policies will be associated with groups conducting **fewer attacks, having a lower rate of fatalities**, and less violence **targeting actors of the state**.
H1b: Rewarding counterterrorism policies will be associated with groups conducting more attacks, higher rates of fatalities, and more violence directed at state actors.
H2a: Punishing counterterrorism policies will be associated with **more attacks, a greater number of fatalities**, the use of suicide attacks, and violence targeting actors of the state.
H2b: Punishing counterterrorism policies will be associated with fewer attacks, fatalities, and with less violence targeting state actors.
H3a: Counterterrorism policies that target a terrorist's group structure will be associated with a **less terrorist violence**.
H3b: Counterterrorism policies that target a terrorist's group structure may cause a group to lose control of members resulting in more attacks, or such policies may be implemented in response to terrorist attacks, and therefore will be associated with **more terrorist violence**.
H4a: Counterterrorism policies that seek to limit terrorist group movement will be associated with less terrorist group violence.
H4b: Counterterrorism policies that seek to limit terrorist group movement may be implemented in response to terrorist attacks, and therefore will be associated with ***more terrorist group violence***.
Aim 2: Group traits
H5: Religious groups will conduct attacks with ***more fatalities***, will target civilians, and will engage in transnational attacks.
H6: Ethnonationalist groups will conduct attacks targeting state actors (e.g. government, police, law enforcement), and will engage in more domestic attacks.
H7: Leftwing groups will conduct attacks targeting businesses and ***actors of the state*** (e.g. government, police, law enforcement).
H8: Minority and ***ex-patriot terrorist groups will conduct attacks with more fatalities*** and will target civilians.
H9: ***Ex-patriots will conduct more transnational attacks***.
H10: Terrorist groups with more resources will be able to **conduct more attacks, have a greater number of fatalities, attack hard targets, and conduct transnational attacks.**
Aim 3: Country characteristics
H11: Religious and/or ethnic heterogeneity in a country will experience **greater terrorist violence** and more indiscriminate attacks.
H12: Countries with large economic disparities will suffer more terrorist attacks.
H13: Democracies will suffer fewer terrorist attacks and less fatalities.
H14: Countries with fewer human rights abuses carried out by the government will experience fewer terrorist attacks, ***less casualties***, and fewer acts of violence targeting state actors.
Aim 4: Moderation relationships
H15: ***Ethnonationalist groups will conduct fewer attacks in countries with greater ethnic heterogeneity***.
H16: Religious groups will conduct fewer attacks in countries with greater religious heterogeneity.
H17: Leftwing groups will conduct more violence in countries with greater economic disparities.
H18: **Mass arrests have less effect on group violence for groups that are larger in size**.
H19: Ethnonationalist groups will conduct fewer attacks in relation to rewarding counterterrorism policies.
H20: **Terrorist groups of varying ideologies will have different trajectories of violence over time**.

Table 1 cont.

Fifth aim: Modeling factors
H21: The measurement of factors that influence terrorist violence will be ***improved by including the influence of all countries a terrorist group attacked within in the analysis.***

Bold = partial support for hypotheses
Bold and italicized = full support for hypotheses
No change = no support for hypotheses

Table 2. Sample of terrorist groups included in this study.

Group Name:	Home-base Country:	Total Attacks:
1920 REVOLUTION BRIGADES	Iraq	2
ABU HAFS AL-MASRI BRIGADES	Spain	11
ABU SAYYAF GROUP (ASG)	Philippines	101
ACHIK NATIONAL VOLUNTEER COUNCIL (ANVC)	India	2
ADAN ABYAN ISLAMIC ARMY (AAIA)	Yemen	3
AL-AQSA MARTYRS BRIGADE	Israel	148
AL-ARIFEEN	Pakistan	5
AL-BADR	Pakistan	3
ALBANIAN NATIONAL ARMY (ANA)	Macedonia	30
ALEX BONCAYAO BRIGADE (ABB)	Philippines	2
AL-FATAH	Israel	3
AL-GAMA'AT AL-ISLAMIYYA (IG)	Egypt	4
AL-HARAMAYN BRIGADES	Saudi Arabia	19
ALL TRIPURA TIGER FORCE (ATTF)	India	71
AL-MADINA	India	5
AL-MANSOORAIN	Pakistan	69
AL-QA`IDA	Afghanistan	3
AL-QA`IDA IN THE ARABIAN PENINSULA (AQAP)	Saudi Arabia	6
AL-QA`IDA IN THE LANDS OF THE ISLAMIC MAGHREB (AQLIM)	Algeria	3
AL-UMAR MUJAHIDEEN	Pakistan	6
AMAL	Lebanon	2
ANARCHIST FACTION	Greece	2
ANDRES CASTRO UNITED FRONT	Nicaragua	2
ANIMAL LIBERATION FRONT (ALF)	United States of America	58
ANSAR AL-ISLAM	Iraq	18
ANSAR AL-SUNNA	Iraq	18
ANTI-IMPERIALIST TERRITORIAL NUCLEI (NTA)	Italy	2
ANTI-STATE ACTION	Greece	3
ARMATA CORSA	France	3
ARMATA DI LIBERAZIONE NAZIUNALE (ALN)	France	8
ARMED FORCES REVOLUTIONARY COUNCIL (AFRC)	Sierra Leone	3
ARMED ISLAMIC GROUP (GIA)	Algeria	118
ARMY OF GOD	United States of America	2
BALOCH LIBERATION ARMY (BLA)	Pakistan	29
BASQUE FATHERLAND AND FREEDOM (ETA)	Spain	200
BLACK STAR	Greece	7
BODO LIBERATION TIGERS (BLT)	India	6

Table 2 cont. Sample of terrorist groups included in this study.

CAMBODIAN FREEDOM FIGHTERS (CFF)	United States of America	5
CATHOLIC REACTION FORCE	United Kingdom	2
CLANDESTINI CORSI	France	2
COALITION TO SAVE THE PRESERVES (CSP)	United States of America	8
COMITE D'ACTION VITICOLE	France	3
COMMUNIST PARTY OF INDIA-MAOIST (CPI-M)	India	29
COMMUNIST PARTY OF NEPAL- MAOIST (CPN-M)	Nepal	18
CONTINUITY IRISH REPUBLICAN ARMY (CIRA)	Ireland	19
CORSICAN NATIONAL LIBERATION FRONT (FLNC)	France	69
DEMOCRATIC FRONT FOR THE LIBERATION OF PALESTINE (DFLP)	Israel	14
DEMOCRATIC KAREN BUDDHIST ARMY (DKBA)	Myanmar (Burma)	2
EARTH LIBERATION FRONT (ELF)	United States of America	71
FIRST OF OCTOBER ANTIFASCIST RESISTANCE GROUP (GRAPO)	Spain	17
FREE ACEH MOVEMENT (GAM)	Indonesia	111
FREE PAPUA MOVEMENT (OPM-ORGANISASI PAPUA MERDEKA)	Indonesia	8
FUERZAS ARMADAS REVOLUCIONARIAS DEL PUEBLO (FARP)	Mexico	3
GLOBAL INTIFADA	Sweden	2
GOD'S ARMY	Myanmar (Burma)	2
GREAT EASTERN ISLAMIC RAIDERS FRONT (IBDA-C)	Turkey	15
HAMAS (ISLAMIC RESISTANCE MOVEMENT)	Israel	206
HARAKAT UL-MUDJAHIDIN (HUM)	Pakistan	5
HIZBALLAH	Lebanon	7
HIZB-I-ISLAMI	Afghanistan	76
HIZBUL MUJAHIDEEN (HM)	Pakistan	61
INFORMAL ANARCHIST FEDERATION	Italy	10
INTERNATIONAL SOLIDARITY	Italy	2
IPARRETARRAK (IK)	France	3
IRISH NATIONAL LIBERATION ARMY (INLA)	Ireland	7
IRISH REPUBLICAN ARMY (IRA)	Ireland	35
ISLAMIC ARMY IN IRAQ (AL-JAISH AL-ISLAMI FI AL-IRAQ)	Iraq	6
ISLAMIC DEFENDERS' FRONT (FPI)	Indonesia	2
ISLAMIC MOVEMENT OF UZBEKISTAN (IMU)	Uzbekistan	5
ISLAMIC SHASHANTANTRA ANDOLON (ISA)	Bangladesh	2
JAISH AL-TA'IFA AL-MANSURA	Iraq	2

Table 2 cont. Sample of terrorist groups included in this study.

JAISH-E-MOHAMMAD (JEM)	Pakistan	32
JAMA'ATUL MUJAHIDEEN BANGLADESH (JMB)	Bangladesh	17
JAMIAT UL-MUJAHEDIN (JUM)	Pakistan	12
JAYSH AL-MUSLIMIN (ARMY OF THE MUSLIMS)	Afghanistan	2
JEMAAH ISLAMIYA (JI)	Indonesia	68
JUNDALLAH	Iran	6
KACH	Israel	2
KANGLEI YAWOL KANNA LUP (KYKL)	India	3
KAREN NATIONAL UNION	Myanmar (Burma)	14
KOSOVO LIBERATION ARMY (KLA)	Macedonia	39
KURDISTAN FREEDOM HAWKS (TAK)	Turkey	13
KURDISTAN WORKERS' PARTY (PKK)	Turkey	126
LASHKAR-E-JHANGVI (LEJ)	Pakistan	19
LASHKAR-E-OMAR	Pakistan	2
LASHKAR-E-TAIBA (LET)	Pakistan	90
LASKAR JIHAD	Indonesia	7
LIBERATION TIGERS OF TAMIL EELAM (LTTE)	Sri Lanka	558
LORD'S RESISTANCE ARMY (LRA)	Uganda	106
LOYALIST VOLUNTEER FORCES (LVF)	United Kingdom	16
MACHETEROS	United States of America	3
MAHDI ARMY	Iraq	4
MAOIST COMMUNIST CENTER (MCC)	India	25
MAYI MAYI	Congo, Democratic Republic of / Zaire	5
MORO ISLAMIC LIBERATION FRONT (MILF)	Philippines	179
MORO NATIONAL LIBERATION FRONT (MNLF)	Philippines	6
MOVEMENT FOR DEMOCRACY AND JUSTICE IN CHAD (MDJT)	Chad	2
MUJAHEDEEN SHURA COUNCIL	Iraq	8
MUTTAHIDA QAMI MOVEMENT (MQM)	Pakistan	9
NATIONAL DEMOCRATIC FRONT OF BODOLAND (NDFB)	India	28
NATIONAL LIBERATION ARMY OF COLOMBIA (ELN)	Colombia	179
NATIONAL LIBERATION FRONT OF TRIPURA (NLFT)	India	42
NATIONAL SOCIALIST COUNCIL OF NAGALAND-ISAK-MUIVAH (NSCN-IM)	India	4
NATIONAL UNION FOR THE TOTAL INDEPENDENCE OF ANGOLA (UNITA)	Angola	141
NEW PEOPLE'S ARMY (NPA)	Philippines	117
NOVEMBER 17 REVOLUTIONARY ORGANIZATION (N17RO)	Greece	16

Table 2 cont. Sample of terrorist groups included in this study.

ODUA PEOPLES' CONGRESS (OPC)	Nigeria	2
ORANGE VOLUNTEERS (OV)	United Kingdom	10
OROMO LIBERATION FRONT	Ethiopia	6
PALESTINIAN ISLAMIC JIHAD (PIJ)	Syria	125
PATTANI UNITED LIBERATION ORGANIZATION (PULO)	Thailand	8
PEOPLE AGAINST GANGSTERISM AND DRUGS (PAGAD)	South Africa	9
PEOPLE'S REVOLUTIONARY ARMY (ERP)	Colombia	10
PEOPLE'S REVOLUTIONARY MILITIAS (MRP)	Ecuador	4
PEOPLE'S WAR GROUP (PWG)	India	62
POPULAR FRONT FOR THE LIBERATION OF PALESTINE (PFLP)	Israel	34
POPULAR LIBERATION ARMY (EPL)	Colombia	11
POPULAR RESISTANCE COMMITTEES	Israel	23
PROLETARIAN NUCLEI FOR COMMUNISM	Italy	2
PURBO BANGLAR COMMUNIST PARTY (PBCP)	Bangladesh	4
REAL IRISH REPUBLICAN ARMY (RIRA)	Ireland	33
RED HAND DEFENDERS (RHD)	United Kingdom	23
RESISTENZA CORSA	France	4
REVOLUTIONARY ARMED FORCES OF COLOMBIA (FARC)	Colombia	501
REVOLUTIONARY CELLS-ANIMAL LIBERATION BRIGADE	United States of America	2
REVOLUTIONARY NUCLEI	Greece	10
REVOLUTIONARY PROLETARIAN INITIATIVE NUCLEI (NIPR)	Italy	2
REVOLUTIONARY STRUGGLE	Greece	6
REVOLUTIONARY UNITED FRONT (RUF)	Sierra Leone	33
REVOLUTIONARY WORKERS' COUNCIL (KAKUROKYO)	Japan	2
RIYADUS-SALIKHIN RECONNAISSANCE AND SABOTAGE BATTALION OF CHECHEN MARTYRS	Russia	7
SALAFIA JIHADIA	Morocco	5
SAVE KASHMIR MOVEMENT	India	3
SHINING PATH (SL)	Peru	22
SOUTH LONDONDERRY VOLUNTEERS (SLV)	United Kingdom	2
STUDENTS ISLAMIC MOVEMENT OF INDIA (SIMI)	India	6
SUDAN PEOPLE'S LIBERATION ARMY (SPLA)	Sudan	15
TAKFIR WAL-HIJRA (EXCOMMUNICATION AND EXODUS)	Egypt	4
TALIBAN	Afghanistan	655

Table 2 cont. Sample of terrorist groups included in this study.

TANZIM	Israel	6
TAWHID AND JIHAD	Iraq	49
TUPAMARO REVOLUTIONARY MOVEMENT	Venezuela	4
ULSTER FREEDOM FIGHTERS (UFF)	United Kingdom	13
ULSTER VOLUNTEER FORCE (UVF)	United Kingdom	10
UNITED LIBERATION FRONT OF ASSAM (ULFA)	India	144
UNITED PEOPLE'S DEMOCRATIC SOLIDARITY (UPDS)	India	8
UNITED SELF DEFENSE UNITS OF COLOMBIA (AUC)	Colombia	57
VIGOROUS BURMESE STUDENT WARRIORS	Myanmar (Burma)	2

Table 3. Sample of countries included in this study.

Country Name:	Number of Groups to which this is the home-base country:
Afghanistan	4
Algeria	2
Angola	1
Bangladesh	3
Chad	1
Colombia	5
Congo, Democratic Republic	1
Ecuador	1
Egypt	2
Ethiopia	1
France	7
Greece	6
India	16
Indonesia	5
Iran	1
Iraq	8
Ireland	4
Israel	8
Italy	5
Japan	1
Lebanon	2
Macedonia	2
Mexico	1
Morocco	1
Myanmar	4
Nepal	1
Nicaragua	1
Nigeria	1
Pakistan	13
Peru	1
Philippines	5
Russia	1
Saudi Arabia	2
Sierra Leone	2
South Africa	1
Spain	3
Sri Lanka	1
Sudan	1

Table 3 cont. Sample of countries included in this study.

Sweden	1
Syria	1
Thailand	1
Turkey	3
Uganda	1
United Kingdom	7
United States	7
Uzbekistan	1
Venezuela	1
Yemen	1

Table 4. Correlations between level one and outcome variables.

Year Variables	Number of Attacks	Number of Fatalities	Fatalities per Attack Rate	Target: Civilians & Private Property	Target: Police	Target: Military	Target: Government	Target: Business	Target: Religious	Mode: Suicide Attack	Mode: Assassination	Mode: Bomb/ Explosion	Mode: Armed Assault
Time point	0.01	-0.03	-0.04	0.01	0.06*	0.01	0.05	-0.06*	-0.04	0.03	0.04	0.04	0.00
Group Age	0.13***	0.03	-0.04	0.12***	0.07*	0.09**	0.10**	0.15***	-0.01	-0.00	0.08**	0.13***	0.10**
Carrot approach	-0.08**	-0.05	-0.03	-0.07**	-0.04	-0.06*	-0.05	-0.06*	-0.02	-0.02	-0.04	-0.07*	-0.07*
Stick approach	0.05	-0.01	-0.01	0.02	0.05	0.02	0.05	0.08**	-0.02	0.03	0.05	0.07*	0.03
Carrot & Stick	0.05	0.00	-0.02	0.08**	-0.02	0.07**	-0.03	-0.02	-0.02	0.05	-0.03	0.03	0.08**
Leadership Decapitation	-0.04	-0.02	0.00	-0.04	-0.02	-0.04	-0.04	-0.04	-0.01	-0.03	-0.03	-0.03	-0.04
Domestic LE	0.01	0.06*	0.04	0.01	0.02	-0.01	0.00	0.01	0.06*	0.01	-0.01	-0.00	0.02
Domestic Military	-0.06	-0.03	-0.01	-0.03	-0.04	-0.05	-0.03	-0.03	-0.03	-0.03	-0.04	-0.04	-0.05
International LE or Military	0.01	-0.01	0.00	0.00	0.01	-0.01	0.02	0.02	-0.02	0.00	-0.00	0.02	-0.00
Ceasefire	0.14***	0.10**	0.05	0.17***	0.07*	0.15***	0.05	0.05	0.00	0.07*	0.06	0.11***	0.15***
Curfew	0.26***	0.20***	0.08**	0.29***	0.15***	0.22***	0.19***	0.11***	0.04	0.21***	0.16***	0.21***	0.26***
Mass Arrest	0.25***	0.14***	0.04	0.22***	0.14***	0.21***	0.17***	0.15***	0.03	0.16***	0.14***	0.26***	0.19***
Internment	0.19***	0.11***	0.03	0.20***	0.11***	0.15***	0.14***	0.06*	0.03	0.22***	0.09**	0.15***	0.22***
Checkpoint	0.23***	0.13***	0.02	0.23***	0.12***	0.20***	0.16***	0.14***	0.03	0.15***	0.14***	0.20***	0.21***
Torture	0.20***	0.16***	0.08	0.18***	0.13***	0.19***	0.15***	0.09**	0.03	0.19***	0.12***	0.17***	0.21***
Deradicalization Program	0.02	0.05	0.12	0.05	-0.01	0.02	0.02	-0.01	0.02	0.02	0.05	-0.01	0.05

* Correlation is significant at the $p<0.05$ level (2-tailed)

** Correlation is significant at the $p<0.01$ level (2-tailed)

***Correlation is significant at the $p<0.001$ level (2-tailed)

Table 5. Correlations between independent variables at level one.

Year Variables	Number of Attacks	Time point	Group Age	Carrot	Stick	Carrot & Stick	Leadership Decapitation	Domestic LE	Domestic Military	International CT	Ceasefire	Curfew	Mass Arrest	Internment	Checkpoint	Torture
Time point	0.01	1														
Group Age	0.13***	0.08**	1													
Carrot approach	-0.08**	0.02	-0.05	1												
Stick approach	0.05	-0.02	0.03	-0.20***	1											
Carrot & Stick	0.05	-0.02	0.12***	-0.13***	-0.26***	1										
Leadership Decapitation	-0.04	0.01	-0.02	0.03	0.15***	-0.00	1									
Domestic LE	0.01	0.04	0.05	0.00	-0.03	0.02	0.02	1								
Domestic Military	-0.06	0.05	0.00	0.02	0.03	0.01	-0.05	0.40**	1							
International LE or Military	0.01	0.01	0.01	0.01	0.08**	-0.02	-0.02	0.26**	0.42**	1						
Ceasefire	0.14***	0.05	0.28***	0.03	-0.09**	0.29***	-0.03	0.06*	0.00	-0.01	1					
Curfew	0.26***	0.05	0.11***	-0.03	-0.02	0.10**	0.01	0.04	-0.02	0.01	0.23***	1				
Mass Arrest	0.25***	0.13***	0.19***	-0.04	0.15***	0.07*	-0.02	-0.04	-0.02	0.03	0.12***	0.23***	1			
Internment	0.19***	0.04	0.01	-0.06*	0.03	0.15***	-0.02	-0.00	-0.01	0.02	0.03	0.24***	0.27***	1		
Checkpoint	0.23***	0.04	0.24***	-0.06*	0.08**	0.08**	0.01	0.02	-0.03	0.03	0.19***	0.45***	0.33***	0.17***	1	
Torture	0.20***	0.02	0.11***	-0.06	-0.01	0.20***	-0.01	-0.01	-0.02	0.05	0.08**	0.23***	0.23***	0.40***	0.16***	1
Deradicalization Program	0.02	0.04	-0.02	-0.04	-0.04	-0.00	-0.03	0.01	0.03	0.05	0.07*	0.14***	0.06*	0.01	0.05	0.08**

* Correlation is significant at the $p<0.05$ level (2-tailed)

** Correlation is significant at the $p<0.01$ level (2-tailed)

***Correlation is significant at the $p<0.001$ level (2-tailed)

Table 6. Correlations between group-level variables at level two.

Group Variables	Left Wing	Ethnonationalist	Pure Religious	Religious-ethnonationalist	Contains ethnonationalist	Other	Islam	Judaism	Christianity	Catholic	Non-Catholic	Group Size	Territorial Control	Government Support	Alliances	Minority Status
Pure Leftwing	1															
Pure Ethnonationalist	-0.12	1														
Pure Religious	-0.19*	-0.11	1													
Religious-ethnonationalist	-0.29**	-0.17*	-0.27**	1												
Contains ethnonationalist	-0.23**	-0.14	-0.21*	-0.32**	1											
Other	-0.17*	-0.10	-0.16	-0.24**	-0.19*	1										
Islam	-0.32**	-0.19*	0.50**	0.51**	-0.36**	-0.28**	1									
Judaism	-0.04	-0.02	-0.03	0.13	-0.04	-0.03	-0.06	1								
Christianity	-0.14	-0.08	0.01	0.38**	-0.16	-0.12	-0.22**	-0.03	1							
Catholic	-0.08	-0.05	-0.07	0.26**	-0.08	-0.06	-0.12	-0.01	0.54**	1						
Non-Catholic	-0.11	-0.07	0.05	0.27**	-0.13	-0.10	-0.18*	-0.02	0.82**	-0.04	1					
Group Size	0.02	-0.08	0.06	-0.04	0.18	-0.18	0.05	-0.09	-0.06	-0.02	-0.07	1				
Territorial Control	0.20*	0.09	-0.02	-0.06	-0.06	-0.13	0.01	-0.05	-0.12	-0.08	-0.10	0.49	1			
Government Support	-0.06	-0.12	0.06	0.02	0.08	-0.02	0.12	-0.04	-0.08	-0.04	-0.08	0.43	0.31	1		
Number of Alliances	-0.10	-0.15	0.03	0.28**	-0.11	-0.06	0.31**	-0.05	-0.01	0.02	-0.05	0.18	0.12	0.24	1	
Minority status	-0.38***	0.26**	-0.05	-0.01	0.45***	-0.25**	0.04	-0.07	-0.12	-0.06	-0.11	0.03	0.01	-0.04	-0.01	1
Ex-Patriot	-0.13	-0.08	0.36***	0.03	-0.09	-0.11	0.36***	-0.02	-0.09	-0.05	-0.08	-0.00	0.11	-0.01	0.18*	0.05

* Correlation is significant at the $p<0.05$ level (2-tailed)

** Correlation is significant at the $p<0.01$ level (2-tailed)

***Correlation is significant at the $p<0.001$ level (2-tailed)

Table 7. Correlations between country-level variables at level three.

Country Variables	Financial CT	Extending powers to courts CT	Censoring or banning media CT	Sanctioning/banning organization CT	Amnesty to repentant terrorists CT	Interception of telecommunications CT	GINI Index	GDP	Democracy	HDI	Ethnic Fractionalization	Religious Fractionalization	Government Effectiveness	Government Stability	Physical Integrity Rights Index	Unknown Perpetrator Ratio
Financial CT	1															
Extending powers to courts CT	0.16	1														
Censoring or banning media CT	0.25	0.38**	1													
Sanctioning or banning organizations CT	0.29*	0.09	0.23	1												
Amnesty to repentant terrorists CT	-0.01	-0.09	-0.05	0.31*	1											
Interception of communications CT	0.08	0.63***	0.29*	0.23	-0.05	1										
GINI Index	-0.25	0.16	0.20	0.02	0.08	0.20	1									
GDP	0.42**	0.45**	0.36*	0.33*	-0.03	0.26	-0.23	1								
Democracy	0.12	0.14	0.07	0.13	-0.02	-0.11	0.03	0.41**	1							
HDI	0.30*	0.37**	0.22	0.27*	-0.07	0.16	-0.10	0.72**	0.55**	1						
Ethnic Fractionalization	-0.18	-0.20	0.09	-0.13	0.13	-0.09	0.45**	-0.47**	-0.27	-0.64***	1					
Religious Fractionalization	0.08	0.20	0.39**	0.06	-0.04	0.34*	0.13	-0.05	-0.08	-0.18	0.29*	1				
Government Effectiveness	0.31*	0.46**	0.42**	0.26	-0.01	0.25	-0.18	0.76**	0.52**	0.81***	-0.55***	0.05	1			
Government Stability	0.18	0.30*	0.25	0.02	-0.10	0.18	-0.23	0.60***	0.46**	0.72***	-0.60***	-0.02	0.82***	1		
Physical Integrity Rights Index	0.18	0.28	0.25	-0.01	-0.09	0.17	-0.13	0.29*	0.42**	0.54***	-0.39**	0.17	0.66***	0.83***	1	
Unknown Perpetrator Ratio	-0.08	-0.06	0.00	-0.12	-0.10	0.05	-0.15	-0.01	-0.20	-0.07	-0.05	0.04	-0.23	-0.13	-0.19	1
Population	0.25	0.18	0.18	0.16	0.03	0.16	-0.15	0.60***	0.05	-0.01	0.02	-0.03	0.06	-0.06	-0.37**	0.12

* Correlation is significant at the $p<0.05$ level (2-tailed)

** Correlation is significant at the $p<0.01$ level (2-tailed)

Table 8. Details for the specific dataset used for each outcome variable after outliers are removed. Across all datasets the sample size at level 2 (terrorist group) is 148, and at level 3 (country) is 48.

Dependent Variable:	Data Range in the full sample	Outlier threshold[66]	Sample Size at level 1	Percentage (%) of cases excluded in this dataset
Number of attacks	0-232	46	1,221	1.53
Fatalities: Count	0-2,995	349	1,228	0.01
Fatalities: Rate	0-599	65	1,231	0.01
Targets: Civilians	0-70	16	1,213	2.18
Targets: Police	0-104	12	1,231	0.01
Targets: Military	0-38	9	1,218	1.77
Targets: Government	0-45	8	1,222	1.45
Targets: Business	0-22	5	1,212	2.26
Mode: Suicide attack	0-36	6	1,217	1.85
Mode: Assassination	0-26	4	1,225	1.21
Mode: Bomb	0-101	23	1,213	2.18
Mode: Armed Assault	0-91	18	1,219	1.69
Location: Domestic	0-206	44	1,219	1.69
Location: Transnational	0-29	7	1,214	2.10

[66] The outlier threshold indicates the number above which cases are outliers. In this case, years with more than this number of attacks were excluded from the sample.

Table 9. Level one (the year level) descriptive statistics for the number of attacks for each outcome variable. Samples exclude outliers.

	Number of Attacks (N=1,221)				**Number of Fatalities (N=1,228)**				**Rate of Fatalities per attack (N=1,231)**			
Year Variables	Minimum	Maximum	Mean/ Percent	S.D.	Minimum	Maximum	Mean/ Percent	S.D.	Minimum	Maximum	Mean/ Percent	S.D.
Number of attacks	0	46	3.21	6.83	0	349	12.98	40.62	0	52	1.80	4.69
Time points	0	9	4.68	2.83	0	9	4.69	2.82	0	9	4.71	2.83
Carrot approach	0	1	0.09	0.29	0	1	0.09	0.29	0	1	0.09	0.29
Stick approach	0	1	0.29	0.45	0	1	0.29	0.45	0	1	0.29	0.45
Leadership Decapitation	0	1	0.04	0.19	0	1	0.04	0.19	0	1	0.04	0.19
Domestic Law Enforcement	0	1	0.19	0.40	0	1	0.19	0.39	0	1	0.19	0.39
Domestic Military	0	1	0.11	0.31	0	1	0.11	0.31	0	1	0.11	0.31
International LE or Military	0	1	0.10	0.30	0	1	0.10	0.30	0	1	0.10	0.30
Ceasefire	0	1	0.21	0.41	0	1	0.21	0.41	0	1	0.21	0.41
Curfew	0	1	0.23	0.42	0	1	0.24	0.43	0	1	0.24	0.43
Mass Arrest	0	1	0.37	0.48	0	1	0.37	0.48	0	1	0.38	0.48
Internment	0	1	0.09	0.28	0	1	0.09	0.28	0	1	0.09	0.29
Checkpoint	0	1	0.36	0.48	0	1	0.36	0.48	0	1	0.37	0.48
Torture	0	1	0.10	0.31	0	1	0.11	0.31	0	1	0.11	0.31
Deradicalization program	0	1	0.03	0.17	0	1	0.03	0.17	0	1	0.03	0.17

Table 9 cont. Level one (the year level) descriptive statistics for the number of attacks for each target outcome variable. Samples exclude outliers.

	Civilian Targets (N=1,213)				Government Targets (N=1,222)				Business Targets (N=1,212)			
Year Variables	Minimum	Maximum	Mean/ Percent	S.D.	Minimum	Maximum	Mean/ Percent	S.D.	Minimum	Maximum	Mean/ Percent	S.D.
Number of attacks	0	16	0.79	2.23	0	8	0.27	1.02	0	5	0.20	0.76
Time points	0	9	4.69	2.83	0	9	4.68	2.83	0	9	4.70	2.84
Carrot approach	0	1	0.09	0.29	0	1	0.09	0.29	0	1	0.09	0.29
Stick approach	0	1	0.29	0.45	0	1	0.29	0.45	0	1	0.28	0.45
Leadership Decapitation	0	1	0.04	0.19	0	1	0.04	0.19	0	1	0.04	0.19
Domestic Law Enforcement	0	1	0.19	0.39	0	1	0.19	0.39	0	1	0.19	0.40
Domestic Military	0	1	0.11	0.31	0	1	0.11	0.31	0	1	0.11	0.31
International LE or Military	0	1	0.10	0.30	0	1	0.10	0.30	0	1	0.10	0.30
Ceasefire	0	1	0.20	0.40	0	1	0.21	0.40	0	1	0.21	0.41
Curfew	0	1	0.23	0.42	0	1	0.23	0.42	0	1	0.24	0.43
Mass Arrest	0	1	0.37	0.48	0	1	0.37	0.48	0	1	0.37	0.48
Internment	0	1	0.08	0.28	0	1	0.09	0.28	0	1	0.09	0.29
Checkpoint	0	1	0.36	0.48	0	1	0.36	0.48	0	1	0.36	0.48
Torture	0	1	0.10	0.30	0	1	0.11	0.30	0	1	0.11	0.31
Deradicalization program	0	1	0.03	0.17	0	1	0.03	0.17	0	1	0.03	0.17

Table 9 cont. Level one (the year level) descriptive statistics for the number of attacks for target and mode of attack outcome variables. Samples exclude outliers.

	Police Targets (N=1,231)				Military Targets (N=1,218)				Suicide Attacks (N=1,217)			
Year Variables	Minimum	Maximum	Mean/ Percent	S.D.	Minimum	Maximum	Mean/ Percent	S.D.	Minimum	Maximum	Mean/ Percent	S.D.
Number of attacks	0	13	0.32	1.32	0	9	0.32	1.16	0	5	0.06	0.45
Time points	0	9	4.68	2.82	0	9	4.70	2.82	0	9	4.69	2.83
Carrot approach	0	1	0.09	0.29	0	1	0.09	0.29	0	1	0.09	0.29
Stick approach	0	1	0.29	0.45	0	1	0.29	0.45	0	1	0.29	0.45
Leadership Decapitation	0	1	0.04	0.19	0	1	0.04	0.19	0	1	0.04	0.19
Domestic Law Enforcement	0	1	0.19	0.40	0	1	0.19	0.39	0	1	0.19	0.39
Domestic Military	0	1	0.11	0.31	0	1	0.11	0.31	0	1	0.11	0.31
International LE or Military	0	1	0.10	0.30	0	1	0.10	0.30	0	1	0.10	0.30
Ceasefire	0	1	0.21	0.41	0	1	0.21	0.41	0	1	0.21	0.41
Curfew	0	1	0.24	0.43	0	1	0.23	0.42	0	1	0.23	0.42
Mass Arrest	0	1	0.37	0.48	0	1	0.37	0.48	0	1	0.37	0.48
Internment	0	1	0.09	0.28	0	1	0.09	0.28	0	1	0.08	0.28
Checkpoint	0	1	0.36	0.48	0	1	0.36	0.48	0	1	0.36	0.48
Torture	0	1	0.11	0.31	0	1	0.10	0.30	0	1	0.10	0.31
Deradicalization program	0	1	0.03	0.17	0	1	0.03	0.17	0	1	0.03	0.17

Table 9 cont. Level one (the year level) descriptive statistics for the number of attacks for mode of attack outcome variables. Samples exclude outliers.

	Bomb Mode of Attack (N=1,213)				**Armed Assault Mode of Attack (N=1,219)**				**Assassination (N=1,225)**			
Year Variables	Minimum	Maximum	Mean/ Percent	S.D.	Minimum	Maximum	Mean/ Percent	S.D.	Minimum	Maximum	Mean/ Percent	S.D.
Number of attacks	0	23	1.18	3.17	0	18	0.85	2.53	0	4	0.07	0.44
Time points	0	9	4.68	2.83	0	9	4.69	2.83	0	9	4.68	2.83
Carrot approach	0	1	0.09	0.29	0	1	0.09	0.29	0	1	0.09	0.29
Stick approach	0	1	0.28	0.45	0	1	0.29	0.45	0	1	0.28	0.45
Leadership Decapitation	0	1	0.04	0.19	0	1	0.04	0.19	0	1	0.04	0.19
Domestic Law Enforcement	0	1	0.19	0.40	0	1	0.19	0.40	0	1	0.19	0.40
Domestic Military	0	1	0.11	0.31	0	1	0.11	0.31	0	1	0.11	0.31
International LE or Military	0	1	0.10	0.30	0	1	0.10	0.30	0	1	0.10	0.30
Ceasefire	0	1	0.21	0.40	0	1	0.21	0.41	0	1	0.21	0.41
Curfew	0	1	0.23	0.42	0	1	0.23	0.42	0	1	0.24	0.43
Mass Arrest	0	1	0.36	0.48	0	1	0.37	0.48	0	1	0.37	0.48
Internment	0	1	0.09	0.28	0	1	0.08	0.28	0	1	0.09	0.28
Checkpoint	0	1	0.36	0.48	0	1	0.36	0.48	0	1	0.36	0.48
Torture	0	1	0.10	0.30	0	1	0.10	0.30	0	1	0.11	0.31
Deradicalization program	0	1	0.03	0.17	0	1	0.03	0.17	0	1	0.03	0.17

Table 9 cont. Level one (the year level) descriptive statistics for the number of attacks for location outcome variables. Samples exclude outliers.

	Domestic Attacks (N=1,219)				**Transnational Attacks (N=1,214)**				**Location: Binary Analysis (N=1,240)**[67]			
Year Variables	Minimum	Maximum	Mean/ Percent	S.D.	Minimum	Maximum	Mean/ Percent	S.D.	Minimum	Maximum	Mean/ Percent	S.D.
Number of attacks	0	44	2.62	6.20	0	8	0.27	0.94	0	1	0.41/0.10	0.49/0.29
Time points	0	9	4.69	2.83	0	9	4.69	2.83	0	9	4.69	2.83
Carrot approach	0	1	0.09	0.29	0	1	0.09	0.29	0	1	0.09	0.29
Stick approach	0	1	0.29	0.45	0	1	0.29	0.45	0	1	0.29	0.45
Leadership Decapitation	0	1	0.04	0.19	0	1	0.04	0.19	0	1	0.04	0.19
Domestic Law Enforcement	0	1	0.19	0.40	0	1	0.19	0.39	0	1	0.19	0.39
Domestic Military	0	1	0.11	0.31	0	1	0.11	0.31	0	1	0.11	0.31
International LE or Military	0	1	0.10	0.30	0	1	0.10	0.30	0	1	0.10	0.30
Ceasefire	0	1	0.21	0.41	0	1	0.21	0.41	0	1	0.21	0.41
Curfew	0	1	0.23	0.42	0	1	0.24	0.43	0	1	0.24	0.43
Mass Arrest	0	1	0.37	0.48	0	1	0.37	0.48	0	1	0.38	0.48
Internment	0	1	0.09	0.28	0	1	0.09	0.28	0	1	0.09	0.29
Checkpoint	0	1	0.36	0.48	0	1	0.37	0.48	0	1	0.37	0.48
Torture	0	1	0.10	0.31	0	1	0.11	0.31	0	1	0.11	0.31
Deradicalization program	0	1	0.03	0.17	0	1	0.03	0.17	0	1	0.03	0.17

[67] The mean and standard deviation for the number of attacks lists the domestic and then the transnational (domestic/transnational).

Table 10. Descriptive statistics for the terrorist group (level two) and countries (level three) used in all analyses.

Group Variables (N=148)	Minimum	Maximum	Mean/Percent	S.D.
Terrorist Group Ideology:				
Leftwing	0	1	0.16	0.37
Pure Ethnonationalist	0	1	0.07	0.25
Religious	0	1	0.15	0.36
Religious-ethnonationalist	0	1	0.29	0.46
Contains ethnonationalist	0	1	0.20	0.40
Other	0	1	0.13	0.34
Minority Status	0	1	0.43	0.50
Ex-Patriot Group	0	1	0.08	0.27
Government Support	0	1	0.17	0.38
Number of Alliances	0	5	2.01	1.75
Group Size	0	2	0.84	0.80
Territorial Control	0	1	0.25	0.43
Group Age	1	87	16.61	14.26
Country Variables (N=48)				
Financial Counterterrorism Legislation	0	1	0.52	0.50
GINI Index	24.85	62.59	39.40	8.34
GDP	20.26	29.74	24.80	2.02
Democracy	0.00	1.00	0.54	0.50
Ethnic Fractionalization	0.01	0.93	0.46	0.26
Religious Fractionalization	0.00	0.86	0.36	0.24
Physical Integrity Rights Index	0.00	7.50	3.43	2.14
Population Size	7.62	13.86	10.44	1.23
Unknown Perpetrator Ratio	0.00	8.64	1.18	1.43

Graph 2. Proportion of each terrorist group ideology at level two.

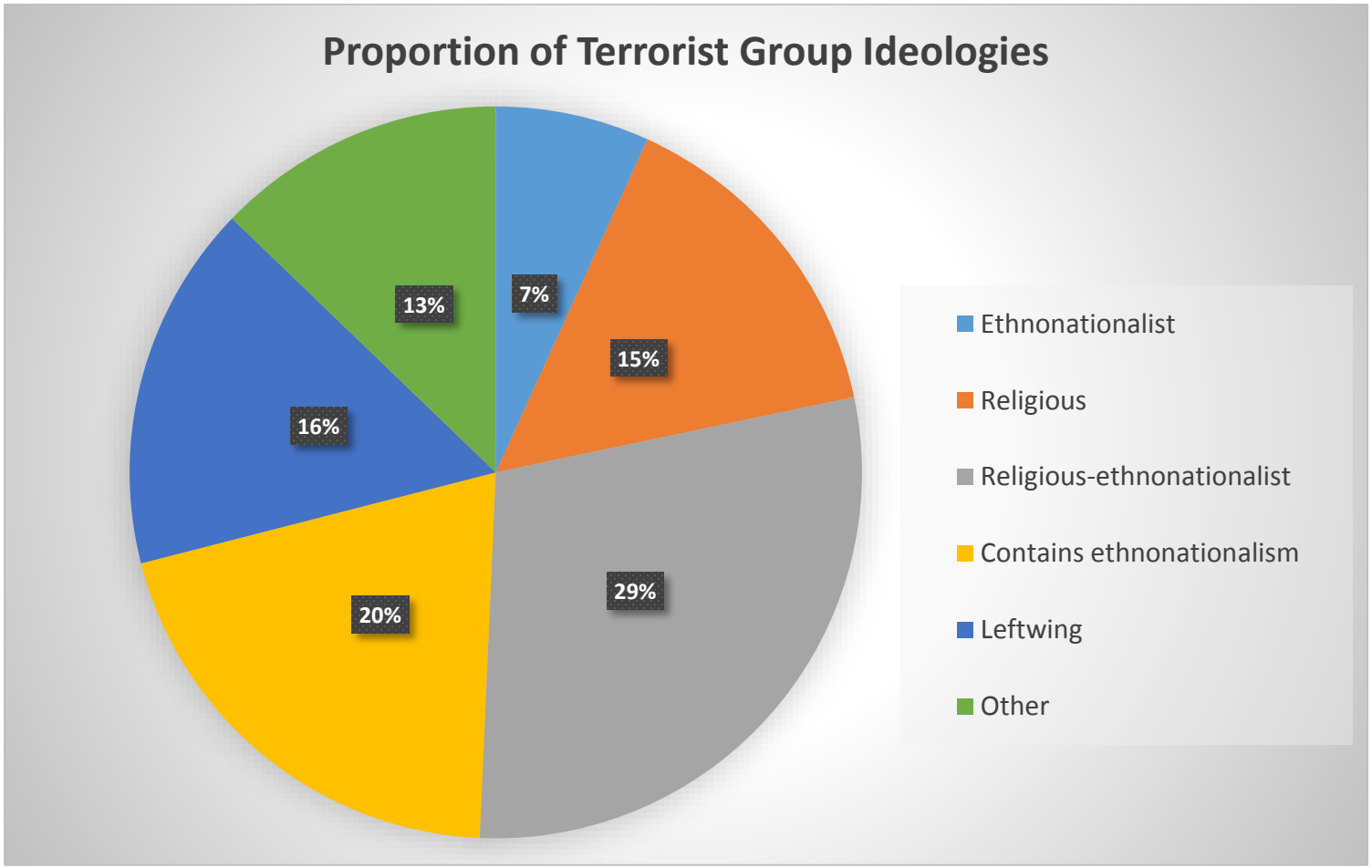


Table 11. Descriptive statistics for the terrorist ideology groups and outcome variables. Results of full dataset and dataset without the outliers are provided.

Data With Outliers		NUMBER OF ATTACKS				NUMBER OF FATALITIES				RATE OF FATALITIES/ATTACK			
Ideological group	N[68]	Mean[69]	Median	Min	Max	Mean	Median	Min	Max	Mean	Median	Min	Max
Religious	177	6.73	0	0	232	54.31	0	0	2995	7.57	0	0	599
Ethnonationalist	85	0.67	0	0	4	3.47	0	0	142	2.84	0	0	142
Leftwing	196	5.97	1	0	111	26.73	0	0	658	3.44	0	0	259
Religious-Ethnonationalist	365	3.58	1	0	72	13.55	0	0	738	2.65	0	0	129
Contains Ethnonationalism	268	5.61	1	0	160	16.78	0	0	671	1.51	0	0	20
Other	149	2.77	0	0	38	5.98	0	0	258	1.32	0	0	96
	1,240												

Data without Outliers	NUMBER OF ATTACKS					NUMBER OF FATALITIES					RATE OF FATALITIES/ATTACK				
Ideological group	N	Mean	Median	Min	Max	N	Mean	Median	Min	Max	N	Mean	Median	Min	Max
Religious	171	2.82	0.6	0	45	172	24.26	0	0	303	174	3.20	0	0	52
Ethnonationalist	85	0.67	0	0	4	85	3.47	0	0	142	84	1.18	0	0	13
Leftwing	190	4.05	0.8	0	45	193	18.75	0	0	331	194	1.74	0	0	22
Religious-Ethnonationalist	362	3.07	1	0	45	364	11.56	0	0	349	363	1.99	0	0	52
Contains Ethnonationalism	264	4.10	1	0	46	265	10.39	0	0	342	268	1.51	0	0	19.71
Other	149	2.77	0	0	38	149	5.98	0	0	349	148	0.68	0	0	43
	1,221					1,228					1,231				

[68] N is the number of years in the dataset that consist of groups associated with each ideology.
[69] Mean number of attacks in a year.

Table 11 cont. Descriptive statistics for the terrorist ideology groups and outcome variables. Results of full dataset and dataset without the outliers are provided.

Data With Outliers		CIVILIAN TARGET				GOVERNMENT TARGET				BUSINESS TARGET			
Ideological group	N	Mean	Median	Min	Max	Mean	Median	Min	Max	Mean	Median	Min	Max
Religious	177	2.02	0	0	56	1.05	0	0	45	0.36	0	0	12
Ethnonationalist	85	0.08	0	0	3	0.02	0	0	2	0.04	0	0	3
Leftwing	196	1.67	0	0	38	0.79	0	0	26	0.69	0	0	22
Religious-Ethnonationalist	365	1.19	0	0	35	0.17	0	0	7	0.22	0	0	10
Contains Ethnonationalism	268	1.82	0	0	70	0.82	0	0	23	0.48	0	0	14
Other	149	0.71	0	0	24	0.19	0	0	5	0.65	0	0	9
	1,240												

Data without Outliers	CIVILIAN TARGET					GOVERNMENT TARGET					BUSINESS TARGET				
Ideological group	N	Mean	Median	Min	Max	N	Mean	Median	Min	Max	N	Mean	Median	Min	Max
Religious	171	1.02	0	0	16	171	0.22	0	0	8	174	0.23	0	0	5
Ethnonationalist	85	0.08	0	0	3	85	0.02	0	0	2	85	0.04	0	0	3
Leftwing	188	0.70	0	0	11	190	0.39	0	0	11	189	0.25	0	0	5
Religious-Ethnonationalist	358	0.79	0	0	15	365	0.17	0	0	7	361	0.14	0	0	4
Contains Ethnonationalism	263	1.10	0	0	14	262	0.49	0	0	8	260	0.21	0	0	5
Other	148	0.55	0	0	8	149	0.19	0	0	5	143	0.34	0	0	5
	1,213					1,231					1,218				

Table 11 cont. Descriptive statistics for the terrorist ideology groups and outcome variables. Results of full dataset and dataset without the outliers are provided.

Data With Outliers		BOMB MODE OF ATTACK				ARMED ASSAULT MODE OF ATTACK			
Ideological group	N	Mean	Median	Min	Max	Mean	Median	Min	Max
Religious	177	2.95	0	0	101	2.53	0	0	91
Ethnonationalist	85	0.12	0	0	4	0.13	0	0	3
Leftwing	196	2.01	0	0	50	1.96	0	0	33
Religious-Ethnonationalist	365	1.71	0	0	40	1.10	0	0	34
Contains Ethnonationalism	268	2.93	0	0	86	1.73	0	0	61
Other	149	1.17	0	0	29	0.37	0	0	13
	1,240								

Data Without Outliers	BOMB MODE OF ATTACK					ARMED ASSAULT MODE OF ATTACK				
Ideological group	N	Mean	Median	Min	Max	N	Mean	Median	Min	Max
Religious	171	1.06	0	0	17	170	0.86	0	0	18
Ethnonationalist	85	0.12	0	0	4	85	0.13	0	0	3
Leftwing	192	1.25	0	0	23	190	1.25	0	0	18
Religious-Ethnonationalist	359	1.27	0	0	23	362	0.88	0	0	17
Contains Ethnonationalism	259	1.62	0	0	22	263	1.03	0	0	17
Other	147	0.82	0	0	23	149	0.37	0	0	13
	1,213					1,219				

Table 11 cont. Descriptive statistics for the terrorist ideology groups and outcome variables. Results of full dataset and dataset without the outliers are provided.

Data With Outliers		DOMESTICT ATTACKS –COUNT				TRANSNATIONAL ATTACKS – COUNT			
Ideological group	N	Mean	Median	Min	Max	Mean	Median	Min	Max
Religious	177	6.06	0	0	206	0.67	0	0	26
Ethnonationalist	85	0.62	0	0	4	0.05	0	0	2
Leftwing	196	5.75	0	0	111	0.22	0	0	27
Religious-Ethnonationalist	365	2.48	0	0	72	1.10	0	0	29
Contains Ethnonationalism	268	5.25	0	0	160	0.36	0	0	12
Other	149	2.67	0	0	38	0.10	0	0	3
	1,240								

Data Without Outliers	DOMESTICT ATTACKS –COUNT					TRANSNATIONAL ATTACKS – COUNT				
Ideological group	N	Mean	Median	Min	Max	N	Mean	Median	Min	Max
Religious	171	2.37	0	0	40	173	0.35	0	0	7
Ethnonationalist	85	0.62	0	0	4	85	0.05	0	0	2
Leftwing	190	3.84	1	0	44	195	0.08	0	0	5
Religious-Ethnonationalist	361	1.83	0	0	40	347	0.46	0	0	7
Contains Ethnonationalism	263	3.58	0	0	44	265	0.25	0	0	7
Other	149	2.67	0	0	38	149	0.10	0	0	3
	1,214					1,219				

Table 11 cont. Descriptive statistics for the terrorist ideology groups and outcome variables. Results of full dataset and dataset without the outliers are provided.

WITH OUTLIERS		DOMESTICT ATTACKS –Binary				TRANSNATIONAL ATTACKS – Binary			
Ideological group	N	Mean	Median	Min	Max	Mean	Median	Min	Max
Religious	177	0.36	0	0	1	0.09	0	0	1
Ethnonationalist	85	0.36	0	0	1	0.04	0	0	1
Leftwing	196	0.52	1	0	1	0.01	0	0	1
Religious-Ethnonationalist	365	0.34	0	0	1	0.20	0	0	1
Contains Ethnonationalism	268	0.46	0	0	1	0.07	0	0	1
Other	149	0.42	0	0	1	0.03	0	0	1
	1,240								

Table 12. Intraclass correlation results for each dependent variable. Percentage of total variance explained is reported.

Dependent Variable	ICC_{L2}: Variance between terrorist groups	ICC_{L3}: Variance between countries
Number of attacks	19.65	9.92
Fatalities:		
Number of fatalities	4.48	57.66
Fatalities per attack	13.56	73.41
Targets:		
Civilians & private property	52.33	17.70
Government	57.42	3.86
Business	70.48	11.47
Mode of attack:		
Bomb/explosion	34.49	4.33
Armed assault	57.81	26.99
Location of attack:		
Domestic	34.09	2.26
Transnational	84.58	39.69

Table 13. Table displaying the results for all dependent variables. Only significant variables indicated with direction of relationship (+ or -).

	Number of attacks	Fatalities		Targets			Mode of Attack		Location: count		Location: dichotomous	
	Full Model	Number of Fatalities	Rate of Fatalities per	Civilians	Business	Government [70]	Bomb	Armed Assault	Domestic -count	Transnational – count	Domestic - Dichotomous	Transnational - Dichotomous
Level-1 Variables												
Time measurement	-	-	-		-			-	-		-	
Carrot approach	-[t]	-				-		-	-			
Deradicalization program	-	-							-			+
Ceasefire												
Stick approach	+						+	+			+	
Torture								+				
Internment		+									+	
Leadership Decapitation	-				-[t]			-				
Mass Arrest	+	+		+	+	+	+	+	+	+	+	
Curfew	+	+		+		+		+	+		+	
Checkpoint		+	+							+	+	+
Domestic LE												
Domestic Military									-	-		

[70] The analysis of government includes four ideological categories: religious, religious-ethnonationalist, leftwing, and other, while the reference category is ethnonationalist. In this analysis the pure ethnonationalists and contains ethnonationalists were combined because the statistical software would not converge when these groups were separated.

Table 13 cont. Table displaying the results for all dependent variables.

International LE or Military			-[t]		+							
Level-2 Variables:												
Group Ideology[a]												
Religious		+	+[t]						+			
Religious-ethnonationalist	+	+	+					+				
Leftwing	+	+						+	+[t]			
Contains ethnonationalist	+	+	+					+	+			
Other ideology	+	+	+						+			
Minority Status												+
Ex-Patriot Group		+	+			+				+	-	+
State Financial Support												-
Number of Alliances	+	+		+			+			+		+
Group Size	+	+		+		+	+	+	+			
Territorial Control			+							+		
Group age												
Level-3 Variables:												
Financial CT legislation												
GINI												
GDP												
Democracy									+	-		-
Physical Integrity Rights Index		-	-									
Ethnic Fractionalization	+							+				
Religious Fractionalization						-						
Unknown ratio		-	-	-				-		-		-
Population Size												

[a]The reference category for group ideology is pure ethnonationalism.

Table 14. Number of Attacks conducted with sample excluding outliers. Final estimation of fixed effects for the unit-specific model with robust standard errors reported.

	Number of Attacks	Number of Fatalities	Rate of Fatalities per Attack	Civilian Targets	Business Targets	Government Targets	Bomb	Armed Assault	Number of Domestic Attacks	Number of Transnational Attacks	Domestic Attack preference	Transnational Attack preference
Level one N:	1,221	1,228	1,231	1,213	1,212	1,222	1,213	1.219	1,219	1,214	1,240	1,240
Fixed Effect	Exp(B)	Exp(B)	Exp(B)	Exp(B)	Exp(B)	Exp(B)	Exp(B)	Exp(B)	Exp(B)	Exp(B)	Odds Ratio	Odds Ratio
Intercept, γ_{000}	0.36*	0.51	0.17**	0.04**	0.01**	0.04***	0.06**	0.03***	0.16**	0.01***	0.06*	0.01**
Level-1:Year												
Time, γ_{100}	0.94*	0.91**	0.93**	0.97	0.88**	1.01	0.97	0.93*	0.95*	0.93	0.87***	0.94
Carrot CT approach, γ_{200}	0.64[t]	0.42**	0.60	0.49	0.88	0.13**	1.16	0.38**	0.46**	0.98	0.49	0.96
Deradicalization program, γ_{300}	0.53*	0.62*	0.78	0.80	0.64	0.84	0.61	0.63	0.47*	1.58	0.62	6.48*
Ceasefire, γ_{400}	1.33	1.02	1.17	1.03	1.11	1.36	1.08	1.25	1.21	1.44	1.63	1.67
Stick CT approach, γ_{500}	1.34*	1.23	1.10	1.59	1.33	1.31	2.14***	1.67*	1.31	1.22	1.73*	1.14
Torture, γ_{600}	1.22	1.15	1.09	1.29	1.79	1.36	1.01	1.70**	1.26	1.26	1.36	0.91
Internment, γ_{700}	0.97	1.58**	1.40	1.04	1.84	1.032	1.22	0.77	1.01	0.87	2.37**	0.67
Leadership decapitation, γ_{800}	0.59*	0.90	1.56	0.68	0.29[t]	0.13	0.96	0.40**	0.71	1.10	1.82	0.62
Mass arrest, γ_{900}	1.84***	1.76***	1.39	1.96**	2.09**	1.91*	3.05***	1.57*	1.74***	2.18*	2.70***	1.77
Curfew, γ_{1000}	1.43**	1.33*	0.99	1.88***	1.18	1.71**	1.11	1.73***	1.40**	1.10	1.52*	0.50
Checkpoint, γ_{1100}	1.31	1.47**	1.87***	1.07	1.50	1.39	1.08	1.32	1.17	1.81*	1.93**	2.11*
Domestic law enforcement, γ_{1200}	1.05	0.80	0.94	1.14	1.07	0.72	0.90	1.32	1.13	1.35	1.36	0.91
Domestic military, γ_{1300}	0.81	1.25	1.24	0.82	0.87	0.60	1.14	0.81	0.68*	0.55**	0.74	0.82
International LE/ military, γ_{1400}	1.07	1.24	0.60[t]	1.17	1.80*	1.78	1.30	0.76	1.08	1.36	0.83	1.17

Table 14 cont.

Level-2: Group (N=148)												
Group Ideology[a]												
Religious, γ_{010}	2.44	8.14**	3.15[t]	7.81	3.12	0.37	2.32	3.62	4.97**	2.43	2.33	1.31
Religious-Ethnonationalism, γ_{020}	2.28*	6.50***	3.42**	4.31	0.66	0.67	1.98	5.61*	1.58	5.58	1.06	3.51
Leftwing, γ_{030}	2.87*	6.17**	1.99	2.03	1.12	2.68	2.92	6.90*	2.90[t]	3.09	3.76	3.88
Contains Ethnonationalism, γ_{040}	2.98*	4.80**	2.30**	6.38	2.21		3.45	5.31*	2.64*	2.04	1.57	0.95
Other, γ_{050}	3.43*	7.03**	2.69*	4.51	5.51	2.86	2.78	2.54	3.66**	7.71	3.33	5.46
Minority, γ_{060}	1.13	1.62	1.41	0.83	1.42	2.25	1.12	1.21	1.30	2.14	1.79	4.59*
Ex-Patriot, γ_{070}	1.34	2.62*	3.23**	0.69	2.63	3.57*	1.71	1.00	0.49	11.48***	0.27*	13.97***
State Financial Support, γ_{080}	0.72	0.85	1.02	0.79	0.92	0.96	0.62	1.17	0.71	0.74	0.71	0.26*
Alliances, γ_{090}	1.21**	1.24*	1.05	1.36**	1.07	1.04	1.42***	1.25	1.16	1.35*	1.09	1.66**
Group size, γ_{0100}	1.45*	1.52*	1.03	1.87**	2.04	1.91*	1.72*	2.21**	1.61**	0.79	1.36	0.60
Territory Control, γ_{0110}	1.20	1.46	2.15***	1.17	1.31	1.40	1.39	0.82	1.60	4.74*	1.37	2.31
Group age, γ_{0120}	1.00	0.98	0.99	1.00	1.02	0.99	0.99	0.99	1.00	1.00	0.99	1.00
Level-3:Country (N = 48)												
Financial CT Legislation, γ_{001}	0.82	0.57	0.93	0.51	0.56	0.88	0.92	0.57	1.08	1.14	1.21	1.33
GINI Index, γ_{002}	1.00	0.99	1.01	1.00	1.05	1.00	1.01	0.97	1.02	1.00	1.02	0.95
GDP, γ_{003}	1.13	0.90	0.92	1.14	1.42	1.26	1.16	1.04	1.09	1.14	1.10	1.11
Democracy, γ_{004}	1.19	0.76	0.63	1.88	0.94	0.77	1.63	1.25	2.17**	0.12**	1.90	0.04*
Ethnic heterogeneity, γ_{005}	2.82*	2.87	2.66	2.79	1.30	2.42	1.22	5.04*	1.31	3.09	0.76	7.13
Religious heterogeneity, γ_{006}	1.76	3.00	0.56	5.26	0.18	0.07*	1.22	1.03	2.85	1.44	1.86	1.27
Physical Integrity Rights Index, γ_{007}	0.95	0.74*	0.78*	0.84	1.19	1.16	1.01	0.83	0.92	1.33	0.86	1.49

Table 14 cont.

Unknown perpetrator ratio, γ_{008}	0.92	0.68***	0.81*	0.74**	0.96	1.13	0.96	0.77*	0.98	0.57**	0.98	0.59**
Population size, γ_{009}	0.85	1.01	1.13	0.79	0.93	0.95	0.75	0.75	0.85	1.07	0.95	0.91
Variance Estimate												
Intercept variance	0.06	0.68***	0.72***	0.01	0.01	0.03	0.25**	0.18	0.00	1.92***	0.18*	2.21***
Level-2 variance	0.63***	0.63***	0.26***	1.35***	2.77***	1.40***	0.93***	1.51***	0.75***	1.04***		
Level-1 variance	3.15	25.80	4.14	1.71	0.67	1.27	2.39	1.70	3.11	0.56	0.10***	0.36

[a]The reference category for group ideology is pure ethnonationalism.
*$p \leq 0.05$, **$p \leq 0.01$, ***$p \leq 0.001$

Table 15. Number of attacks targeting government to evaluate leftwing ideological groups. Final estimation of fixed effects for the unit-specific model with robust standard errors reported.[71]

Fixed Effect	Exp(B)
Intercept, γ_{000}	0.02***
Level-1: Year (N = 1,222)	
Time, γ_{100}	1.01
Carrot CT approach, γ_{200}	0.13**
Deradicalization program, γ_{300}	0.84
Ceasefire, γ_{400}	1.36
Stick CT approach, γ_{500}	1.31
Torture, γ_{600}	1.36
Internment, γ_{700}	1.03
Leadership decapitation, γ_{800}	0.13
Mass arrest, γ_{900}	1.90*
Curfew, γ_{1000}	1.71**
Checkpoint, γ_{1100}	1.40
Domestic law enforcement, γ_{1200}	0.72
Domestic military, γ_{1300}	0.60
International LE/ military, γ_{1400}	1.78
Level-2: Group (N = 148)	
Group Ideology[a]	
Ethnonationalism, γ_{010}	2.73
Religious- Ethnonationalism, γ_{020}	1.83
Leftwing, γ_{030}	7.29**
Other, γ_{040}	7.78**
Minority, γ_{060}	2.25
Ex-Patriot, γ_{070}	3.57*
State Financial Support, γ_{080}	0.96
Alliances, γ_{090}	1.04
Group size, γ_{0100}	1.91*
Territory Control, γ_{0110}	1.40
Group age, γ_{0120}	0.99
Level-3: Country (N = 48)	
Financial CT Legislation, γ_{001}	0.88
GINI Index, γ_{002}	1.00
GDP, γ_{003}	1.26
Democracy, γ_{004}	0.77
Ethnic heterogeneity, γ_{005}	2.42
Religious heterogeneity, γ_{006}	0.07*
Physical Integrity Rights Index, γ_{007}	1.16

[71] Note that like in prior analyses, to evaluate this dependent variable pure ethnonationalism and "contains ethnonationalism" groups had to be combined into a single category.

Table 15 cont.

Unknown perpetrator ratio, γ_{008}	1.13
Population size, γ_{009}	0.95
Variance Component	
Intercept variance	0.03
Level-2 variance	1.40***
Level-1 variance	1.27

[a]The reference category for group ideology is religious ideology.
*$p \leq 0.05$, **$p \leq 0.01$, ***$p \leq 0.001$

Table 16. Cross-level interaction of ethnic heterogeneity and ethnonationalist groups evaluated for the number of attacks. Final estimation of fixed effects for the unit-specific model with robust standard errors reported.

	Full Model	Full Model with Cross-level Interaction
Fixed Effect	Exp(B)	Exp(B)
Intercept, γ_{000}	1.04	1.14
Level-1: Year (N = 1,221)		
Time, γ_{100}	0.94*	0.94*
Carrot CT approach, γ_{200}	0.64	0.62*
Deradicalization program, γ_{300}	0.53*	0.53*
Ceasefire, γ_{400}	1.33	1.33
Stick CT approach, γ_{500}	1.34*	1.34*
Torture, γ_{600}	1.22	1.22
Internment, γ_{700}	0.97	0.97
Leadership decapitation, γ_{800}	0.59*	0.59*
Mass arrest, γ_{900}	1.84***	1.84***
Curfew, γ_{1000}	1.43**	1.42**
Checkpoint, γ_{1100}	1.31	1.31
Domestic law enforcement, γ_{1200}	1.05	1.05
Domestic military, γ_{1300}	0.81	0.81
International LE/ military, γ_{1400}	1.07	1.07
Level-2: Terrorist Group (N = 148)		
Group Ideology[a]		
Religious, γ_{010}	0.85	0.83
Ethnonationalism, γ_{020}	0.35*	0.38*
Religious-Ethnonationalism, γ_{030}	0.79	0.76
Contains Ethnonationalism, γ_{040}	1.04	1.01
Other, γ_{050}	1.19	1.19
Minority, γ_{060}	1.13	1.17
Ex-Patriot, γ_{070}	1.34	1.30

Table 16 cont. Cross-level interaction of ethnic heterogeneity and ethnonationalist groups evaluated for the number of attacks.

State Financial Support, γ_{080}	0.72	0.70
Alliances, γ_{090}	1.21**	1.20**
Group size, γ_{0100}	1.45*	1.45*
Territory Control, γ_{0110}	1.20	1.16
Group age, γ_{0120}	1.00	1.00
Level-3: Country (N = 48)		
Financial CT Legislation, γ_{001}	0.82	0.79
GINI Index, γ_{002}	1.00	1.00
GDP, γ_{003}	1.13	1.11
Democracy, γ_{004}	1.19	1.13
Ethnic heterogeneity, γ_{005}	2.82*	3.18*
Religious heterogeneity, γ_{006}	1.76	1.97
Physical Integrity Rights Index, γ_{007}	0.95	0.98
Unknown perpetrator ratio, γ_{008}	0.92	0.91
Population size, γ_{009}	0.85	0.86
Cross-level interaction		
Ethnic heterogeneity X ethnonationalism		0.08**
Variance Component		
Intercept variance	0.06	0.03
Level-2 variance	0.63***	0.64***
Level-1 variance	3.45	0.08

[a]The reference category for group ideology is leftwing.
*$p \leq 0.05$, **$p \leq 0.01$, ***$p \leq 0.001$

Graph 3. Graph depicts the rate of attacks for pure ethnonationalism groups and leftwing groups in countries with high levels of ethnic heterogeneity (1 standard deviation above the mean), average ethnic heterogeneity (mean), and low ethnic heterogeneity (1 standard deviation below the mean).

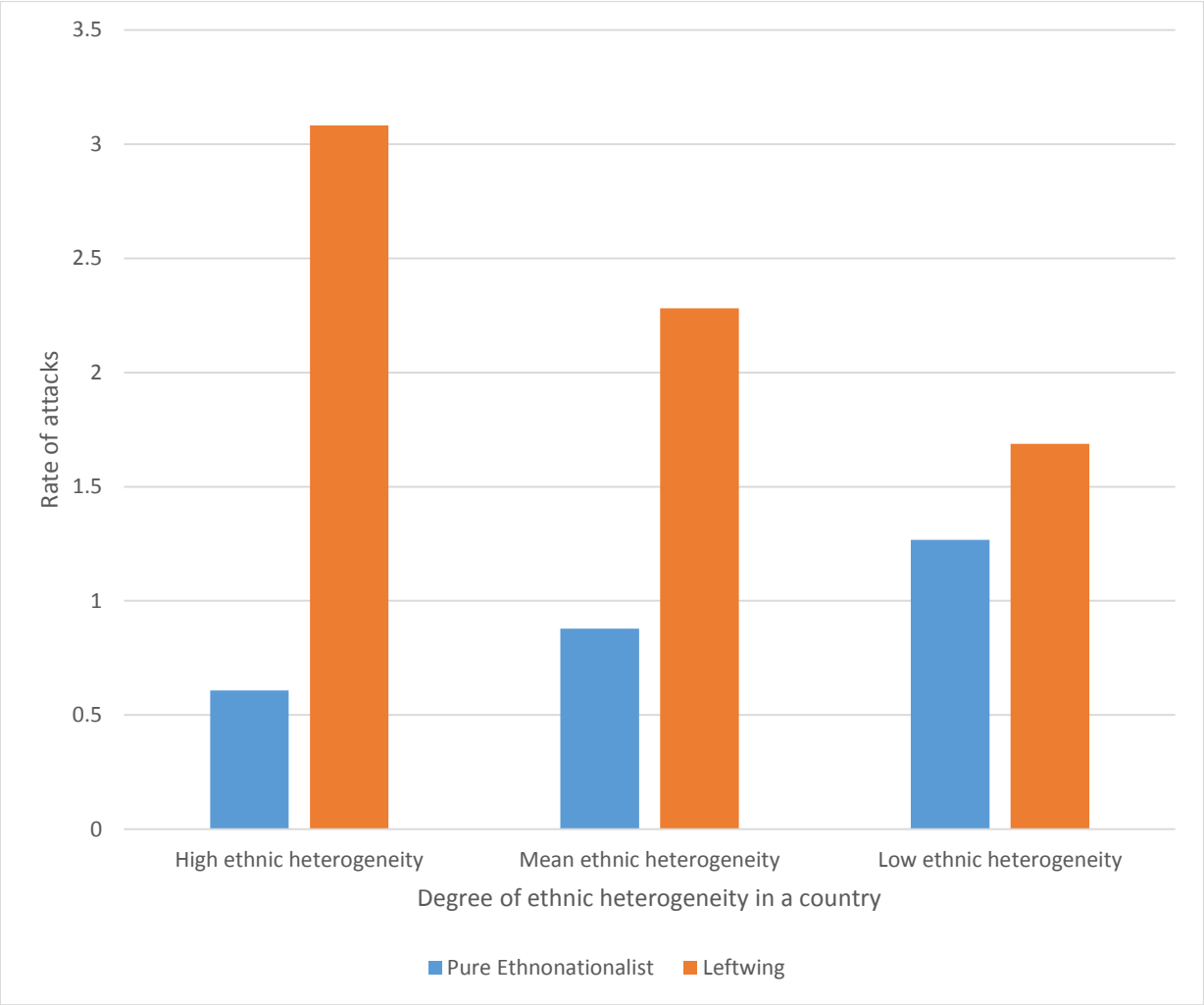


Table 17. Moderation hypotheses results depicted. Final estimation of fixed effects for the unit-specific model with robust standard errors reported.

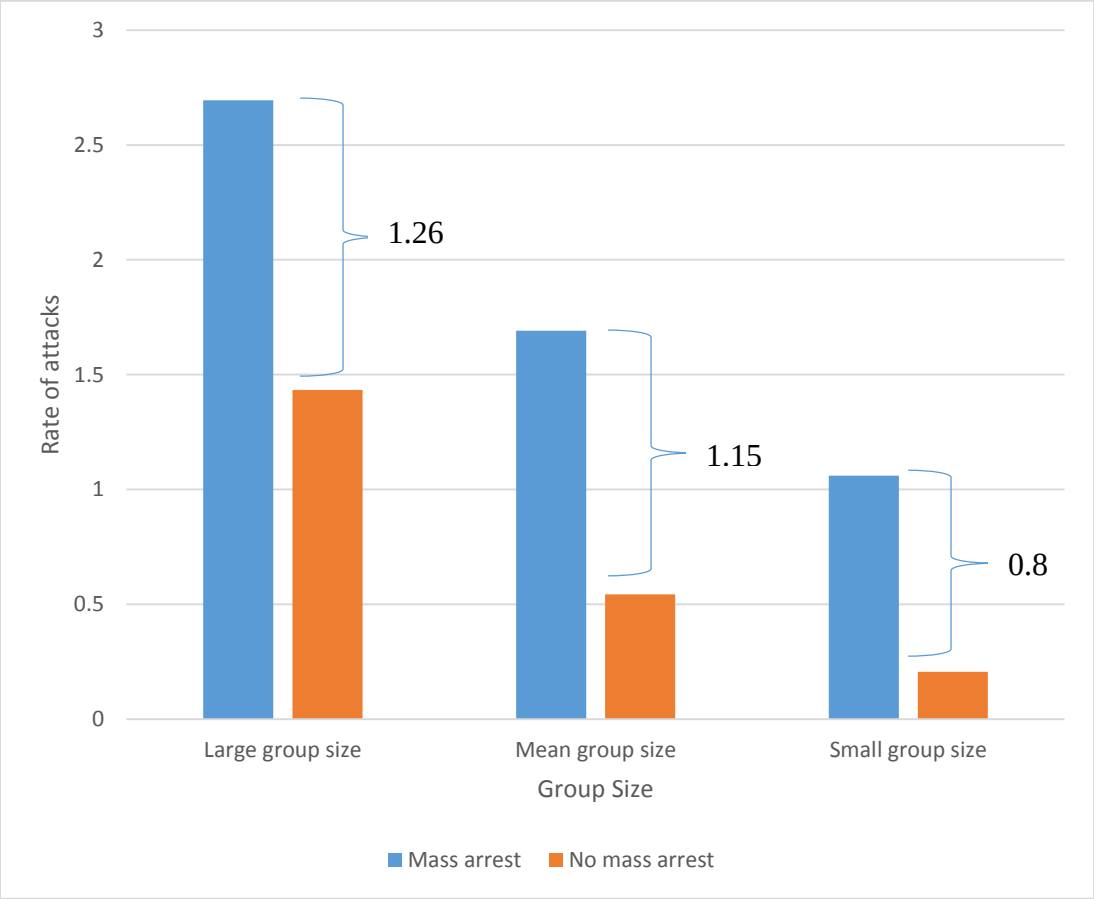
	Armed Assault	Armed Assault	Armed Assault	Number of Fatalities
	N= 1,219	N= 1,219	N= 1,219	N = 1,228
Fixed Effect	Exp(B)	Exp(B)	Exp(B)	Exp(B)
Intercept, γ_{000}	0.14**	0.18*	0.12**	0.34
Level-1: Year				
Time, γ_{100}	0.93[t]	0.91*	0.90*	0.87***
Carrot CT approach, γ_{200}	0.36***	0.35***	0.33***	0.37**
Deradicalization program, γ_{300}	0.54	0.77	0.79	0.68
Ceasefire, γ_{400}	1.21	1.15	1.19	0.96
Stick CT approach, γ_{500}	1.59*	1.52	1.56	0.96
Torture, γ_{600}	1.66**	1.58*	1.74**	1.04
Internment, γ_{700}	0.78	0.95	0.84	2.40***
Leadership decapitation, γ_{800}	0.41*	0.35**	0.37*	0.95
Mass arrest, γ_{900}	3.10***	1.45*	2.85***	1.58*
Curfew, γ_{1000}	1.74***	1.87***	1.92***	1.34
Checkpoint, γ_{1100}	1.27	1.28	1.25	1.76*
Domestic law enforcement, γ_{1200}	1.34	1.29	1.21	0.88
Domestic military, γ_{1300}	0.84	0.74	0.80	1.23
International LE/ military, γ_{1400}	0.78	0.75	0.80	1.12
Level-2: Group (N=148)				
Group Ideology[a]				
Religious, γ_{010}	0.49	0.43	0.39	8.27**
Religious-Ethnonationalism, γ_{020}	0.77	0.77	0.73	7.34***
Leftwing, γ_{030}	REF	REF	REF	6.48**
Ethnonationalism, γ_{030}	0.13*	0.13*	0.11*	REF
Contains Ethnonationalism, γ_{040}	0.69	0.69	0.59	4.58*
Other, γ_{050}	0.34	0.34	0.34	6.30**
Minority, γ_{060}	1.20	1.40	1.40	1.81
Ex-Patriot, γ_{070}	0.85	1.18	0.94	2.78*
State Financial Support, γ_{080}	1.34	1.03	1.10	0.75
Alliances, γ_{090}	1.18	1.28	1.22	1.24*
Group size, γ_{0100}	3.36***	2.33**	3.49***	1.60*
Territory Control, γ_{0110}	0.80	0.84	0.81	1.37
Group age, γ_{0120}	0.99	0.99	0.99	0.98*
Level-3: Country (N=48)				
Financial CT Legislation, γ_{001}	0.61	0.55	0.63	0.74
GINI Index, γ_{002}	0.96	0.96	0.96	1.00

Table 17 cont. Moderation hypotheses results depicted.

GDP, γ_{003}	1.05	1.06	1.04	0.93
Democracy, γ_{004}	1.15	1.30	1.19	0.66
Ethnic heterogeneity, γ_{005}	4.40^{t}	6.12*	4.65*	1.74
Religious heterogeneity, γ_{006}	0.74	0.91	0.84	2.04
Physical Integrity Rights Index, γ_{007}	0.87	0.83	0.88	0.73**
Unknown perpetrator ratio, γ_{008}	0.78*	0.77*	0.80	0.71***
Population size, γ_{009}	0.81	0.76	0.84	1.09
Cross-level interaction				
Group Size X Mass Arrest	0.53*		0.50*	
Ethnonationalism X Time		1.24**	1.24*	
Religious ideology X Time				1.14^{t}
Variance Component				
Intercept variance	0.01	0.18	0.02	0.42***
Level-2 variance	2.57***	1.82***	2.45***	0.76***
Cross-level variance 1 (time)		0.07***	0.06***	0.06***
Cross-level variance 2 (mass arrest)	1.48***		1.13***	
Level-1 variance	1.26	1.15	1.01	16.99

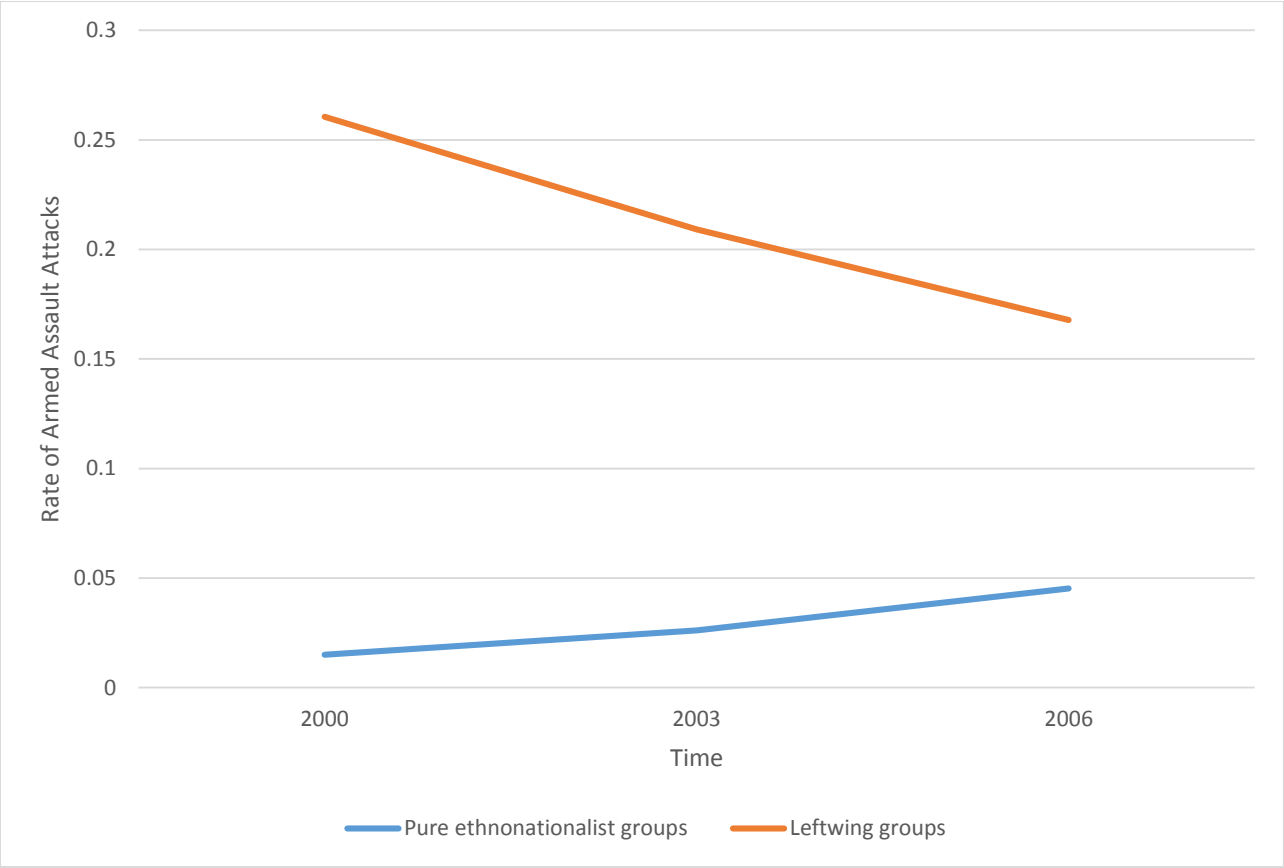
[a]The reference category for group ideology is leftwing for armed attack models, and pure ethnonationalist groups for the fatalities model.
*$p\leq0.05$, **$p\leq0.01$, ***$p\leq0.001$

Graph 4. Graph depicts the rate of armed assault attacks for terrorist groups of different sizes exposed to mass arrest and not exposed to mass arrest.



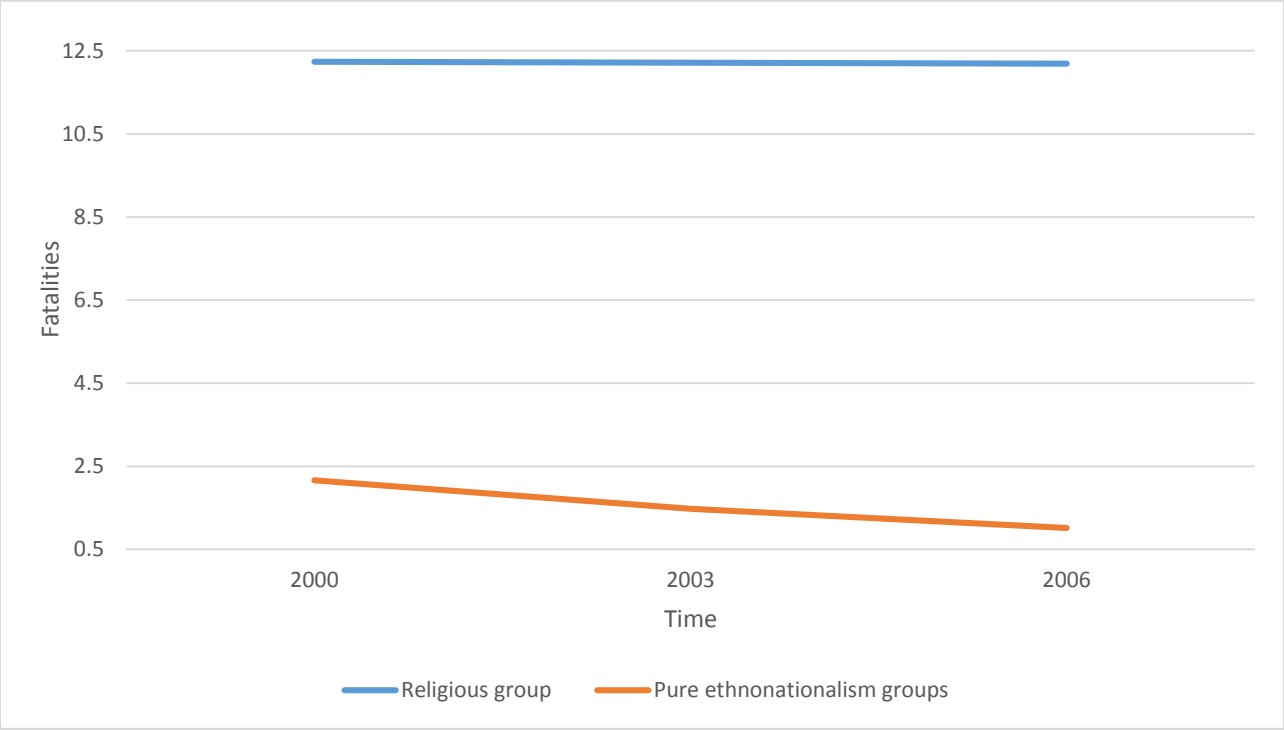
Large group size (1 standard deviation above the mean), average group size (mean), small group size (1 standard deviation below the mean). Depicted are leftwing terrorist groups in democracies with financial counterterrorism legislation with average group and country-level variables that are not subjected to any counterterrorism policies at level one.

Graph 5. Graph depicting the change in armed assaults over time for pure ethnonationalist groups and leftwing terrorist groups.[72]



[72] The predicted probabilities depicted in the graph represents groups in democracies where financial counterterrorism legislation is in effect with the other country-level and group-level variables standardized at the mean. These groups that are not subjected to any specific counterterrorism policies at level one.

Graph 6. Graph depicting the change in rate of fatalities over time for religious groups compared to pure ethnonationalist terrorist groups.[73]



[73] The predicted probabilities depicted in the graph represents groups in democracies where financial counterterrorism legislation is in effect with the other country-level and group-level variables standardized at the mean. These groups that are not subjected to any specific counterterrorism policies at level one.

Table 18. Results of MMREM analysis for the number of terrorist attacks in a year.

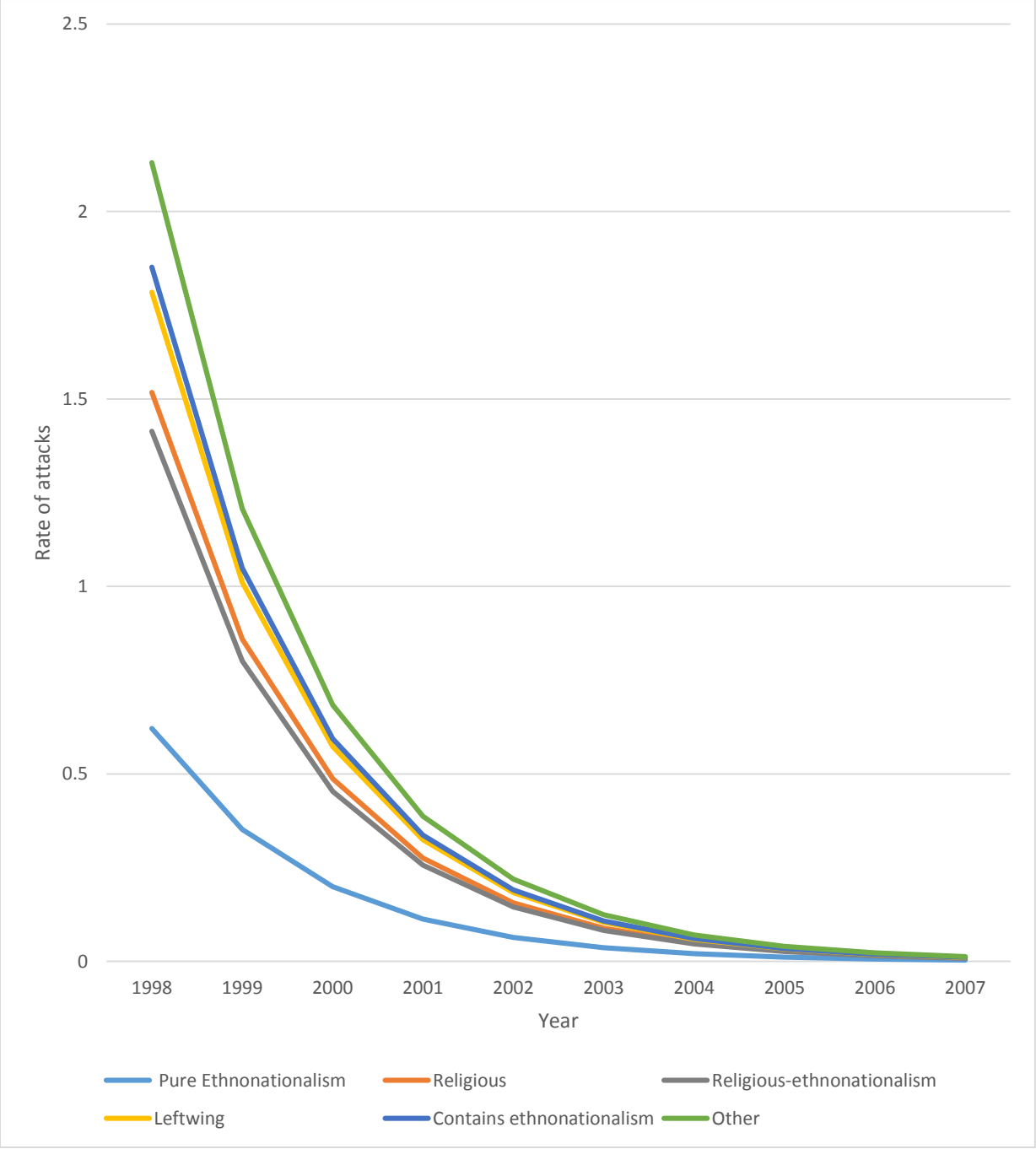
	Full Model	MMREM Model
Fixed Effect	Exp(B)	Exp(B)
Intercept, γ_{000}	0.34*	0.36*
Level 1: Year (N = 1,221)		
Time, γ_{100}	0.98	0.98
Carrot CT approach, γ_{200}	0.86	0.88
Deradicalization program, γ_{300}	1.03	1.02
Ceasefire, γ_{400}	1.07	1.06
Stick CT approach, γ_{500}	1.14*	1.14*
Torture, γ_{600}	1.03	1.04
Internment, γ_{700}	1.05	1.04
Leadership decapitation, γ_{800}	0.93	0.92
Mass arrest, γ_{900}	1.18*	1.20*
Curfew, γ_{1000}	1.03	1.02
Checkpoint, γ_{1100}	1.09	1.07
Domestic law enforcement, γ_{1200}	1.06	1.06
Domestic military, γ_{1300}	0.91	0.92
International LE/ military, γ_{1400}	1.01	1.02
Level 2: Group (N = 148)		
Group ideology[a]		
Religious, γ_{010}	1.30	1.18
Leftwing, γ_{020}	1.44*	1.26
Religious-Ethnonationalism, γ_{030}	1.37	1.28
Contains Ethnonationalism, γ_{040}	1.49*	1.40*
Other, γ_{050}	1.64*	1.46*
Minority, γ_{060}	1.05	1.00
Ex-Patriot, γ_{070}	1.14	1.14
State Financial Support, γ_{080}	0.84	0.88
Alliances, γ_{090}	1.09*	1.08*
Group size, γ_{0100}	1.17*	1.16*
Territory Control, γ_{0110}	1.06	1.05
Group age, γ_{0120}	1.00	1.00
Level 3: Country (N = 48)		
Financial CT Legislation, γ_{001}	0.86	0.89
GINI Index, γ_{002}	0.99	1.00
GDP, γ_{003}	1.07	1.06

Table 18 cont. Results of MMREM analysis for the number of terrorist attacks in a year.

Democracy, γ_{004}	1.09	1.09
Ethnic heterogeneity, γ_{005}	1.56	1.80*
Religious heterogeneity, γ_{006}	1.32	1.16
Physical Integrity Rights Index, γ_{007}	0.96	0.98
Unknown perpetrator ratio, γ_{008}	0.96	0.99
Population size, γ_{009}	0.91	0.91
Variance Component		
Level 3	0.04	0.03
Level 2	0.04*	0.04*
Level 1	1.00	1.00
-2*loglikelihood		
DIC	2766.77	2768.33
pD	82.00	82.18

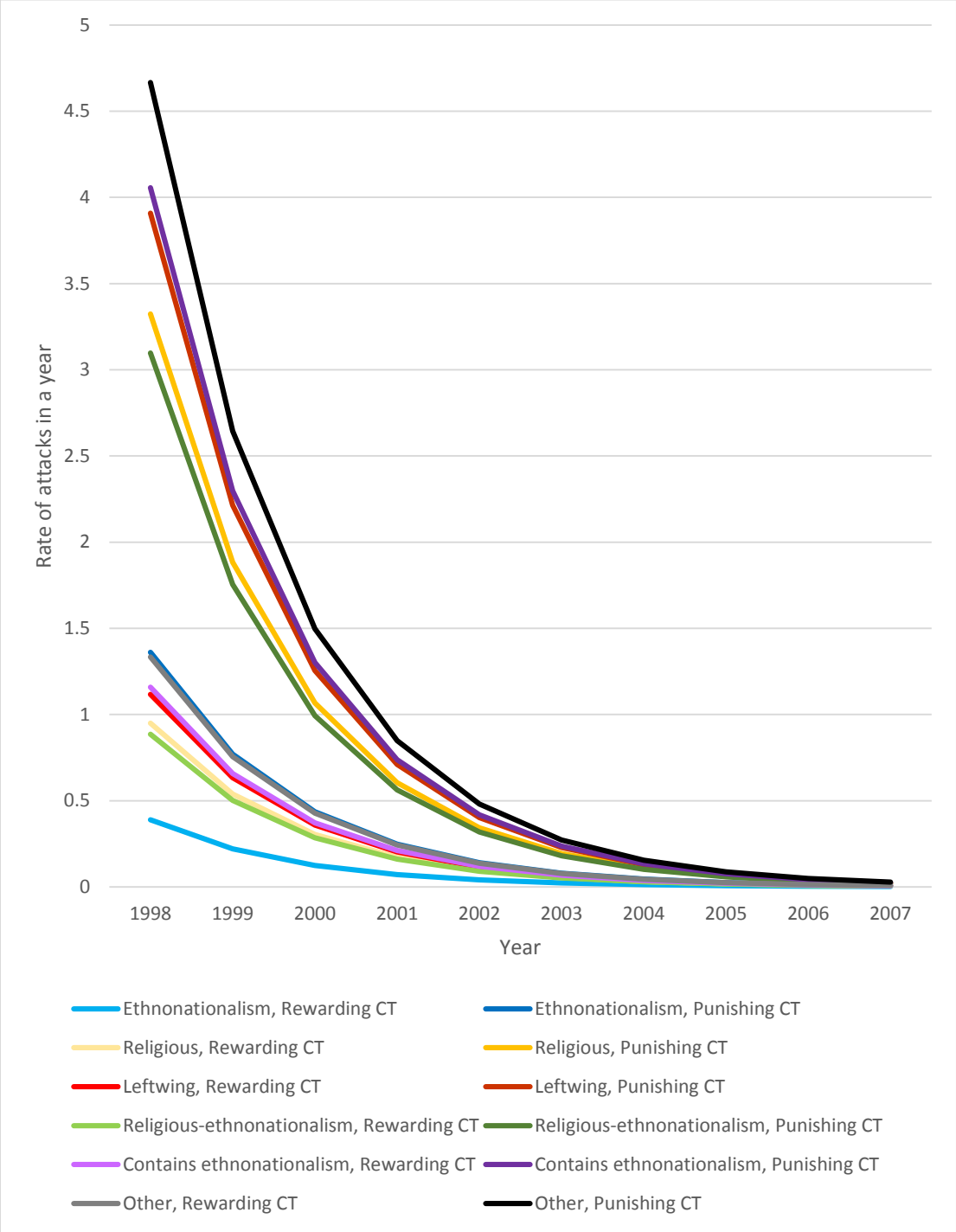
[a]The reference category for group ideology is pure ethnonationalism.
*$p \leq 0.05$, **$p \leq 0.01$, ***$p \leq 0.001$

Graph 7. Predicted probability for the rate of terrorist attacks over time. Depicted are the trajectories for the different ideological groups. N = 1,221.[74]



[74] This graph depicts groups that are not minorities or ex-patriots that do not control territory or have state support. The home-base countries of the groups depicted are democracies with financial CT legislation.

Graph 8. Predicted probability for the rate of terrorist attacks over time. Depicted are the trajectories for the different ideological groups in relation to being subjected to punishing versus rewarding counterterrorism policies. N = 1,221.[75]



[75] This graph depicts groups that are not minorities or ex-patriots that do not control territory or have state support. The home-base countries of the groups depicted are democracies with financial CT legislation.

Appendix A

Table. Descriptive Statistics for the full dataset with three-levels of analysis.

Year Variables (N=1240)	**Minimum**	**Maximum**	**Mean/Percent**	**S.D.**
Year	1998	2007	2002.69	2.83
Time points	0	9	4.69	2.83
Group Age	0	85	15.65	13.94
Counterterrorism Variables:				
Carrot approach	0	1	0.09	0.29
Stick approach	0	1	0.29	0.45
Both Carrot & Stick approach	0	1	0.14	0.35
Leadership Decapitation	0	1	0.04	0.19
Domestic Law Enforcement	0	1	0.19	0.39
Domestic Military	0	1	0.11	0.31
International LE or Military	0	1	0.10	0.30
Ceasefire	0	1	0.21	0.41
Curfew	0	1	0.24	0.43
Mass Arrest	0	1	0.38	0.48
Internment	0	1	0.09	0.29
Checkpoint	0	1	0.37	0.48
Torture	0	1	0.11	0.31
Deradicalization program	0	1	0.03	0.17
Group Variables (N=148)				
Ideology				
Leftwing	0	1	0.16	0.37
Pure Ethnonationalist	0	1	0.07	0.25
Religious	0	1	0.15	0.36
Religious-ethnonationalist	0	1	0.29	0.46
Contains ethnonationalist	0	1	0.20	0.40
Other	0	1	0.13	0.34
Religious Affiliation:				
Islam	0	1	0.34	0.48
Judaism	0	1	0.01	0.08
Christianity	0	1	0.09	0.28
Catholic	0	1	0.03	0.16
Non-Catholic	0	1	0.06	0.24
Group Size	0	2	0.84	0.80
Territorial Control	0	1	0.25	0.43
Government Support	0	1	0.17	0.38
Number of Alliances	0	5	2.01	1.75
Minority Status	0	1	0.43	0.50
Ex-Patriot Group	0	1	0.08	0.27
Total Number of years in data	2	10	8.38	2.40
Total Number of attacks 1998-2007	2	655	38.13	88.61
Country Variables (N=48)				
Counterterrorism Legislation				

Appendix A cont.

Financial	0	1	0.52	0.50
Extending powers to courts	0	1	0.15	0.36
Censoring or banning media	0	1	0.06	0.24
Sanctioning or banning organizations	0	1	0.08	0.28
Amnesty to repentant terrorists	0	1	0.04	0.20
Interception of telecommunications	0	1	0.06	0.24
GINI Index	24.85	62.59	39.40	8.34
GDP	20.26	29.74	24.80	2.02
Democracy	0.00	1.00	0.54	0.50
Human Development Index	0.29	0.95	0.69	0.19
Ethnic Fractionalization	0.01	0.93	0.46	0.26
Religious Fractionalization	0.00	0.86	0.36	0.24
Physical Integrity Rights Index	0.00	7.50	3.43	2.14
Control Variables				
Population Size	7.62	13.86	10.44	1.23
Government Effectiveness	-1.75	2.10	-0.18	1.00
Government Stability	-2.45	1.42	-0.77	0.98
Unknown Perpetrator Ratio	0.00	8.64	1.18	1.43
Dependent Variables				
Total Attacks in a year	0	232	4.55	14.10
Fatalities:				
Number of fatalities in a year	0	2995	20.55	109.31
Number of fatalities per attack	0	599	3.08	20.66
Targets:				
Civilians	0	70	1.39	4.90
Police	0	104	0.59	4.09
Military	0	38	0.66	3.01
Government	0	45	0.53	2.64
Business	0	22	0.41	1.67
Mode of Attack:				
Suicide	0	36	0.27	1.87
Assassination	0	26	0.18	1.29
Bomb or Explosion	0	101	2.02	7.13
Armed Assault	0	91	1.42	5.58
Location of Attack:				
Domestic –count	0	206	4.00	13.47
Transnational -count	0	29	0.55	2.34
Domestic –dichotomous	0	1	0.41	0.49
Transnational –dichotomous	0	1	0.10	0.29

Appendix B

Table. Weighting matrix for multiple membership random effects modeling (MMREM) analysis.[76]

Relationship between the number of attacks in different countries	Country 1	Country 2	Country 3	Country 4
Domestic attacks only	1	0	0	0
Domestic = Transnational 1	0.60	0.40	0	0
Domestic > Transnational 1	0.80	0.20	0	0
Domestic < Transnational 1	0.40	0.60	0	0
Domestic > Transnational 1 = Transnational 2	0.80	0.10	0.10	0
Domestic < Transnational 1 = Transnational 2	0.40	0.30	0.30	0
Domestic = Transnational 1 > Transnational 2	0.60	0.30	0.10	0
Domestic > Transnational 1 > Transnational 2	0.70	0.20	0.10	0
Domestic < Transnational 1 > Transnational 2	0.40	0.40	0.20	0
Domestic > Transnational 1 ≥ Transnational 2 ≥ Transnational 3	0.70	0.10	0.10	0.10
Domestic = Transnational 1 ≥ Transnational 2 ≥ Transnational 3	0.40	0.20	0.20	0.20
Domestic < Transnational 1 = Transnational 2 ≥ Transnational 3	0.30	0.30	0.20	0.20

[76] The weight across the countries must total 1. The weights are determined by the number of attacks in each location, while giving additional weight to the home-base country.

Appendix C

Data Collection Details

Method of identifying groups: I went through each group listed in BAAD1 and determined if it matched a group in BAAD2. If the name was not directly the same, I investigated aliases for the group to determine if the group was listed in BAAD2 under a different name. I then did the same with the BAAD2 data, matching it to BAAD1 to be sure I was thorough. After finding groups listed in each dataset I then matched the groups to the GTD dataset. The groups included in the analysis are listed below with explanations if the names did not exactly match between datasets. The home-base country is also listed for each group and if there are discrepancies, coding decisions are explained.

Groups included:

- ANIMAL LIBERATION FRONT (ALF)
    - Same name/Home-base country in BAAD1, BAAD2, and GTD
    - Same home-base country: USA
- ARMY OF GOD
    - Same name/Home-base country in BAAD1, BAAD2, and GTD
    - Same home-base country: USA
- CAMBODIAN FREEDOM FIGHTERS (CFF)
    - Same name in BAAD1, BAAD2, and GTD
    - Different home-base country in BAAD1 and BAAD2:
        - BAAD1: Country of origin: USA
        - BAAD2: Country of origin: KHM = Cambodia (Kampuchea)
    - Resolution: TOPs: The Cambodian Freedom Fighters (CFF) are a militant organization based in Long Beach, California that are dedicated to the overthrow of Cambodia's government. CFF's leader is a middle-aged Cambodian-American accountant named Chhun Yasith. From his home in California, Yasith directs a network-in-place that stretches across Northeastern Cambodia and over the Thai border. Its members include Cambodian-Americans based in Thailand and the US, as well as former soldiers from the Khmer Rouge and Royal Cambodian Armed Forces.
        - Based on this information, it appears that the CFF is based in the USA, though the main interests are in Cambodia. With this in mind, I will code the USA as the home-base country.
- COALITION TO SAVE THE PRESERVES (CSP)
    - Same name/Home-base country in BAAD1, BAAD2, and GTD
    - Same home-base country: USA
- EARTH LIBERATION FRONT (ELF)
    - Same name/Home-base country in BAAD1, BAAD2, and GTD
    - Same home-base country: USA
- MACHETEROS
    - Same name/Home-base country in BAAD1, BAAD2, and GTD

    - Same home-base country: USA
- REVOLUTIONARY CELLS-ANIMAL LIBERATION BRIGADE
    - Roughly same name (BAAD1: REVOLUTIONARY CELLS-ANIMAL LIBERATION BRIGADE, BAAD2: REVOLUTIONARY CELLS ANIMAL LIBERATION BRIGADE)
    - REVOLUTIONARY CELLS-ANIMAL LIBERATION BRIGADE matched with GTD
    - Same home-base country: USA
- FUERZAS ARMADAS REVOLUCIONARIAS DEL PUEBLO (FARP)
    - Name is translated in BAAD1 (Revolutionary Armed Forces of the People (FARP)), but matches BAAD2 and GTD
    - Same home-base country: Mexico
- ANDRES CASTRO UNITED FRONT
    - BAAD1 name includes parentheses (Andres Castro United Front (FUAC)), but is the same in BAAD2 and GTD
    - Same home-base country: Nicaragua
- NATIONAL LIBERATION ARMY OF COLOMBIA (ELN)
    - BAAD1 lists name as National Liberation Army (Colombia), BAAD2 lists as NATIONAL LIBERATION ARMY OF COLOMBIA (ELN), which matches GTD
    - Same country of origin: Colombia
- PEOPLE'S REVOLUTIONARY ARMY (ERP)
    - BAAD1 lists name as People's Revolutionary Army (Colombia). BAAD2 lists it as PEOPLE'S REVOLUTIONARY ARMY (ERP), which is in GTD. BAAD1 is the name in TOPs, which lists the mother tongue of the group as Ejercito Revolucionario del Pueblo (ERP). Since it is the same name and has the same abbreviation, this group is included.
    - Same home-base country: Colombia
- POPULAR LIBERATION ARMY (EPL)
    - BAAD1 lists Popular Liberation Army and BAAD2 lists POPULAR LIBERATION ARMY (EPL), which matches GTD. TOPs has BAAD1, with (EPL) as abbreviation of mother tongue name, so it is included.
    - Same home-base country: Colombia
- REVOLUTIONARY ARMED FORCES OF COLOMBIA (FARC)
    - Same name/Home-base country in BAAD1, BAAD2, and GTD
    - Same home-base country: Colombia
- UNITED SELF DEFENSE UNITS OF COLOMBIA (AUC)
    - BAAD1 lists United Self-Defense Forces of Colombia (AUC), while BAAD2 lists UNITED SELF DEFENSE UNITS OF COLOMBIA (AUC), which matches GTD. TOPs lists the BAAD1 name, but has Las Autodefensas Unidas de Colombia (AUC) listed as the mother tongue name, which actually translates to BAAD2, so it is included.
    - Same home-base country: Colombia
- TUPAMARO REVOLUTIONARY MOVEMENT

    - BAAD1 refers to Tupamaro Revolutionary Movement - January 23, while BAAD2 lists TUPAMARO REVOLUTIONARY MOVEMENT, which matches GTD. TOPs has BAAD1 and says: The Tupamaro Revolutionary Movement is a terrorist organization currently operating in Caracas, Venezuela. The group is based in a working-class Caracas neighborhood, the 23 January District. The description in TOPs keeps referring to group by BAAD2, so it is interchangeable and is included.
    - Same home-base country: Venezuela
- PEOPLE'S REVOLUTIONARY MILITIAS (MRP)
    - BAAD1 refers to People's Revolutionary Militias. BAAD2 refers to PEOPLE'S REVOLUTIONARY MILITIAS (MRP), which matches the GTD. These groups operate in the same country, Ecuador, with no other groups matching names.
    - Same home-base country: Ecuador
- SHINING PATH (SL)
    - BAAD1 refers to Shining Path, while BAAD2 adds abbreviation SHINING PATH (SL), which matches GTD.
    - Same home-base country: Peru
- CATHOLIC REACTION FORCE
    - BAAD1 refers to Catholic Reaction Force (CRF), while BAAD2 lists CATHOLIC REACTION FORCE, which matches GTD.
    - Different home-base country:
        - BAAAD1: United Kingdom
        - BAAD2: Great Britain
        - In my dataset Great Britain/Northern Ireland are not distinguished. TOPs indicates the group was not operating in Ireland, coded so it is coded as for UK.
- LOYALIST VOLUNTEER FORCES (LVF)
    - BAAD1 lists Loyalist Volunteer Force (LVF), while BAAD2 lists same group as LOYALIST VOLUNTEER FORCES (LVF), which is in GTD.
    - Different home-base country:
        - BAAAD1: United Kingdom
        - BAAD2: Great Britain
        - In my dataset Great Britain/Northern Ireland are not distinguished, so it is coded as for UK because it is unionist.
- ORANGE VOLUNTEERS (OV)
    - Same name in BAAD1, BAAD2, and GTD
    - Different home-base country:
        - BAAAD1: United Kingdom
        - BAAD2: Great Britain
        - In my dataset Great Britain/Northern Ireland are not distinguished, so it is coded as for UK.
- RED HAND DEFENDERS (RHD)
    - Same name in BAAD1, BAAD2, and GTD
    - Different home-base country:

        - BAAAD1: United Kingdom
        - BAAD2: Great Britain
        - In my dataset Great Britain/Northern Ireland are not distinguished, so it is coded as for UK.
- SOUTH LONDONDERRY VOLUNTEERS (SLV)
    - Same name in BAAD1, BAAD2, and GTD
    - Different home-base country:
        - BAAAD1: United Kingdom
        - BAAD2: Great Britain
        - In my dataset Great Britain/Northern Ireland are not distinguished, so it is coded as for UK.
- ULSTER FREEDOM FIGHTERS (UFF)
    - BAAD1 lists Ulster Defence Association/Ulster Freedom Fighters, while BAAD2 lists ULSTER FREEDOM FIGHTERS (UFF) which matches GTD. The UFF is the military wing of the UDA, and TOPs has UDA listed as an alias, so this group is included.
    - Different home-base country:
        - BAAAD1: United Kingdom
        - BAAD2: Great Britain
        - In my dataset Great Britain/Northern Ireland are not distinguished, so it is coded as for UK because it is unionist.
- ULSTER VOLUNTEER FORCE (UVF)
    - Same name in BAAD1, BAAD2, and GTD
    - Different home-base country:
        - BAAAD1: United Kingdom
        - BAAD2: Great Britain
        - In my dataset Great Britain/Northern Ireland are not distinguished, so it is coded as for UK.
- CONTINUITY IRISH REPUBLICAN ARMY (CIRA)
    - Same name in BAAD1, BAAD2, and GTD
    - Different home-base country:
        - BAAAD1: United Kingdom
        - BAAD2: Great Britain
        - In my dataset Great Britain/Northern Ireland are not distinguished. TOPs indicates the group is based in Northern Ireland and the Republic of Ireland, and since it's fighting the UK it is coded for Ireland.
- IRISH NATIONAL LIBERATION ARMY (INLA)
    - Same name in BAAD1, BAAD2, and GTD
    - Different home-base country:
        - BAAAD1: Ireland
        - BAAD2: Great Britain

        - In my dataset Great Britain/Northern Ireland are not distinguished. TOPs indicates the group is based in the UK, Northern Ireland and the Republic of Ireland. Since it's fighting the UK and operating in Ireland, it is coded for Ireland.
- IRISH REPUBLICAN ARMY (IRA)
    - Same name in BAAD1, BAAD2, and GTD
    - Different home-base country:
        - BAAAD1: UK
        - BAAD2: Ireland
        - In my dataset Great Britain/Northern Ireland are not distinguished. TOPs indicates the group is based in the Republic of Ireland, Northern Ireland and the UK. Since it's fighting the UK and operating in Ireland, it is coded for Ireland.
- REAL IRISH REPUBLICAN ARMY (RIRA)
    - Same name in BAAD1, BAAD2, and GTD
    - Different home-base country:
        - BAAAD1: UK
        - BAAD2: Ireland
        - In my dataset Great Britain/Northern Ireland are not distinguished. TOPs indicates the group is based in the Republic of Ireland, Northern Ireland and the UK. Since it's fighting the UK and operating in Ireland, it is coded for Ireland.
- RESISTENZA CORSA
    - Same name/Home-base country in BAAD1, BAAD2, and GTD
    - Same home-base country: France
- COMITE D'ACTION VITICOLE
    - BAAD1 lists Action Committee of Winegrower. TOPs has COMITE D'ACTION VITICOLE, what is listed in BAAD2 and GTD, as the mother tongue/alias for Action Committee of Winegrower.
    - Same home-base country: France
- ARMATA CORSA
    - Same name/Home-base country in BAAD1, BAAD2, and GTD
    - Same home-base country: France
- ARMATA DI LIBERAZIONE NAZIUNALE (ALN)
    - BAAD1 lists Armata di Liberazione Naziunale, which is the same as BAAD2 (ARMATA DI LIBERAZIONE NAZIUNALE (ALN)) and GTD, but without the abbreviation in parentheses.
    - Same home-base country: France
- CLANDESTINI CORSI
    - Same name/Home-base country in BAAD1, BAAD2, and GTD
    - Same home-base country: France

- CORSICAN NATIONAL LIBERATION FRONT (FLNC)
    - BAAD1 lists Fronte di Liberazione Naziunale di a Corsica (FLNC), which is the mother tongue of the BAAD2 and GTD version, CORSICAN NATIONAL LIBERATION FRONT (FLNC).
    - Same home-base country: France
- IPARRETARRAK (IK)
    - Same name/Home-base country in BAAD1, BAAD2, and GTD
    - Same home-base country: France
- ABU HAFS AL-MASRI BRIGADES
    - BAAD1 lists Abu Hafs al-Masri Brigade, while BAAD2 and GTD use the name ABU HAFS AL-MASRI BRIGADES.
    - Different home-base country:
        - BAAAD1: UK
        - BAAD2: Spain
        - TOPs: The Abu Hafs al-Masri Brigade may be the name of an active al-Qaeda cell in Europe or the organization that oversees al-Qaeda's European operations. The group has claimed responsibility for several large terrorist strikes, including the July London bombings, the 2004 Madrid train bombings, and the massive blackouts that occurred in North America in the summer of 2003.
        - The group's initial attacks in Europe are in Spain, so I am coding Spain as the home-base country.
- BASQUE FATHERLAND AND FREEDOM (ETA)
    - Same name/Home-base country in BAAD1, BAAD2, and GTD
    - Same home-base country: Spain
- FIRST OF OCTOBER ANTIFASCIST RESISTANCE GROUP (GRAPO)
    - Same name/Home-base country in BAAD1, BAAD2, and GTD
    - Same home-base country: Spain
- ANTI-IMPERIALIST TERRITORIAL NUCLEI (NTA)
    - BAAD1 lists Territorial Anti-Imperialist Nuclei, while BAAD2 and GTD lists ANTI-IMPERIALIST TERRITORIAL NUCLEI (NTA). TOPs has no other aliases, but both groups are from the same country and have such similar names it appears the difference is due to translating of words in a different order.
    - Same home-base country: Italy
- INFORMAL ANARCHIST FEDERATION
    - Same name/Home-base country in BAAD1, BAAD2, and GTD
    - Same home-base country: Italy
- INTERNATIONAL SOLIDARITY
    - Same name/Home-base country in BAAD1, BAAD2, and GTD
    - Same home-base country: Italy
- PROLETARIAN NUCLEI FOR COMMUNISM

    - Same name/Home-base country in BAAD1, BAAD2, and GTD
    - Same home-base country: Italy
- REVOLUTIONARY PROLETARIAN INITIATIVE NUCLEI (NIPR)
    - BAAD1 has the group listed as Revolutionary Proletarian Initiative Nuclei, just not including the abbreviation as listed in BAAD2 and the GTD (REVOLUTIONARY PROLETARIAN INITIATIVE NUCLEI (NIPR)).
    - Same home-base country: Italy
- ALBANIAN NATIONAL ARMY (ANA)
    - Same name/Home-base country in BAAD1, BAAD2, and GTD
    - Same home-base country: Macedonia
- KOSOVO LIBERATION ARMY (KLA)
    - Same name in BAAD1, BAAD2, and GTD
    - Different home-base country:
        - BAAAD1: Macedonia
        - BAAD2: Yugoslavia
        - TOPs: Kosovo Liberation Army (KLA) formed in Macedonia in 1992 with the goal of uniting the ethnic Albanian populations of Albania, Kosovo, and Macedonia into a "Greater Albania." Their name recognized that the province of Kosovo, officially part of the new nation of Serbia, was their most important and difficult target.
        - They attack in Kosovo (in Serbia) a lot, but no indication they have a base there so it's coded for Macedonia, where the group originated.
- ANARCHIST FACTION
    - Same name/Home-base country in BAAD1, BAAD2, and GTD
    - Same home-base country: Greece
- ANTI-STATE ACTION
    - Same name/Home-base country in BAAD1, BAAD2, and GTD
    - Same home-base country: Greece
- BLACK STAR
    - Same name/Home-base country in BAAD1, BAAD2, and GTD
    - Same home-base country: Greece
- REVOLUTIONARY NUCLEI
    - Same name/Home-base country in BAAD1, BAAD2, and GTD
    - Same home-base country: Greece
- NOVEMBER 17 REVOLUTIONARY ORGANIZATION (N17RO)
    - BAAD1 has Revolutionary Organization 17 November (RO-N17) and BAAD2 and GTD have NOVEMBER 17 REVOLUTIONARY ORGANIZATION (N17RO). TOPs has Epanastatiki Organosi 17 Noemvri, 17 November (N17) listed as an alias of the BAAD1 group. It appears the BAAD2 name is the same group, just the words are translated in a different order.
    - Same home-base country: Greece

- REVOLUTIONARY STRUGGLE
    - Same name/Home-base country in BAAD1, BAAD2, and GTD
    - Same home-base country: Greece
- RIYADUS-SALIKHIN RECONNAISSANCE AND SABOTAGE BATTALION OF CHECHEN MARTYRS
    - BAAD1 has Riyad us-Saliheyn Martyrs' Brigade. BAAD2 and GTD have RIYADUS-SALIKHIN RECONNAISSANCE AND SABOTAGE BATTALION OF CHECHEN MARTYRS. TOPs has the BAAD2 name listed as an alias for the BAAD1 group name, so they are the same.
    - Same home-base country: Russia
- GLOBAL INTIFADA
    - Same name/Home-base country in BAAD1, BAAD2, and GTD
    - Same home-base country: Sweden
- ARMED FORCES REVOLUTIONARY COUNCIL (AFRC)
    - Same name/Home-base country in BAAD1, BAAD2, and GTD
    - Same home-base country: Sierra Leone
- REVOLUTIONARY UNITED FRONT (RUF)
    - Same name/Home-base country in BAAD1, BAAD2, and GTD
    - Same home-base country: Sierra Leone
- ODUA PEOPLES' CONGRESS (OPC)
    - Same name/Home-base country in BAAD1 (though it doesn't include the abbreviation), BAAD2, and GTD
    - Same home-base country: Nigeria
- MOVEMENT FOR DEMOCRACY AND JUSTICE IN CHAD (MDJT)
    - Same name/Home-base country in BAAD1, BAAD2, and GTD
    - Same home-base country: Chad
- MAYI MAYI
    - BAAD1 lists Popular Self-Defense Forces (FAP), while BAAD2 and GTD list MAYI MAYI. TOPs has BAAD1 group listed, which has Mayi Mayi listed as one of the group's mother tongue name, so it's included.
    - Same home-base country: Congo, Kinshasa (Zaire/DRCongo)
- LORD'S RESISTANCE ARMY (LRA)
    - Same name in BAAD1, BAAD2, and GTD
    - Different home-base country:
        - BAAAD1: Uganda
        - BAAD2: Sudan →Congo
        - TOPs: Based in Northern Uganda and Sudan, the Lord's Resistance Army seeks to destabilize and overthrow the government of Uganda. In 2002, the Sudanese government reversed its longstanding policy of support for the LRA and began cooperating in efforts to eliminate the group's sanctuaries. Despite this declaration, the LRA continued to perpetrate its brutal attacks within

Uganda, both in its longstanding operational area in the north, as well as on targets to the east.
        - The group is based in Uganda and Sudan. Given that the main place of interest is Uganda, I'm coding that as the home-base country.
- OROMO LIBERATION FRONT
    - BAAD1 has same name with abbreviation. Same name in BAAD2 and GTD.
    - Same home-base country: Ethiopia
- NATIONAL UNION FOR THE TOTAL INDEPENDENCE OF ANGOLA (UNITA)
    - BAAD1 lists UNITA, while BAAD2 and GTD list full name. TOPs has the long BAAD2 version as an alias for the BAAD1 name, so it's included.
    - Same home-base country: Angola
- PEOPLE AGAINST GANGSTERISM AND DRUGS (PAGAD)
    - Same name/Home-base country in BAAD1, BAAD2, and GTD
    - Same home-base country: South Africa
- SALAFIA JIHADIA
    - Same name/Home-base country in BAAD1, BAAD2, and GTD
    - Same home-base country: Morocco
- ARMED ISLAMIC GROUP (GIA)
    - Same name/Home-base country in BAAD1 (doesn't have abbreviation), BAAD2, and GTD
    - Same home-base country: Algeria
- AL-QA`IDA IN THE LANDS OF THE ISLAMIC MAGHREB (AQLIM)
    - BAAD1 has Salafist Group for Call and Combat (GSPC). BAAD2 and GTD have AL-QA`IDA IN THE LANDS OF THE ISLAMIC MAGHREB (AQLIM). TOPs has the BAAD2 group name and has Salafist Group for Call and Combat (GSPC) listed as an alias, and they have the same home-base country, so they are coded together.
    - Same home-base country: Algeria
- SUDAN PEOPLE'S LIBERATION ARMY (SPLA)
    - Same name/Home-base country in BAAD1 (doesn't have abbreviation), BAAD2, and GTD
    - Same home-base country: Sudan
- JUNDALLAH
    - BAAD1 has Jund Allah Organization for the Sunni Mujahideen in Iran. BAAD2 and GTD have JUNDALLAH listed. TOPs describes Jund Allah Organization for the Sunni Mujahideen in Iran as a group that had kidnapped/killed Shebab Mansuri in Iran in 2005. No other attacks mentioned, because the TOPs has not been updated since then. Article (http://www.aljazeera.com/news/middleeast/2010/06/201062074140996374.html) has kidnapping of Shebab Mansuri as being conducted by Jundallah. The other attacks listed match GTD for Jundallah. With this information, I am coding these groups the same.

    - Same home-base country: Iran
- GREAT EASTERN ISLAMIC RAIDERS FRONT (IBDA-C)
    - BAAD1 lists the Islamic Great Eastern Raiders Front, while BAAD2 and GTD list GREAT EASTERN ISLAMIC RAIDERS FRONT (IBDA-C). TOPs has IBDA-C listed as an alias for Islamic Great Eastern Raiders Front. And a report has IBDA-C called the Islamic Great Eastern Raiders Front as well (http://www.state.gov/documents/organization/31947.pdf). With this information I am coding these groups the same.
    - Same home-base country: Turkey
- KURDISTAN FREEDOM HAWKS (TAK)
    - Same name in BAAD1 (doesn't have abbreviation), BAAD2, and GTD
    - Different home-base country:
        - BAAAD1: Turkey
        - BAAD2: Iraq
        - TOPs: The Kurdistan Freedom Hawks (Tayrbazen Azadiya Kurdistan -- TAK) is a militant Kurdish group operating in Turkey.
        - Since the group is operating in Turkey, that is the home-base country
- KURDISTAN WORKERS' PARTY (PKK)
    - Same name/Home-base country in BAAD1, BAAD2, and GTD
    - Same home-base country: Turkey
- ANSAR AL-ISLAM
    - Same name/Home-base country in BAAD1, BAAD2, and GTD
    - Same home-base country: Iraq
- ANSAR AL-SUNNA
    - BAAD1 lists Ansar al-Sunnah Army, while BAAD2 and GTD list ANSAR AL-SUNNA. TOPs says Ansar al-Sunnah Army started in 2003, which is what BAAD2 says. Ansar Al-Sunna Army is listed as an alias for Ansar al-Sunna at http://www.investigativeproject.org/profile/125. The difference in names seems like a spelling difference, so the group is included.
    - Same home-base country: Iraq
- ISLAMIC ARMY IN IRAQ (AL-JAISH AL-ISLAMI FI AL-IRAQ)
    - Same name/Home-base country in BAAD1 (parentheses are not included), BAAD2, and GTD. TOPs has al-Jaish al-Islami fi al-Iraq as the mother-tongue name for the group, so it's the same.
    - Same home-base country: Iraq
- MAHDI ARMY
    - Same name/Home-base country in BAAD1, BAAD2, and GTD
    - Same home-base country: Iraq
- TAWHID AND JIHAD
    - Same name/Home-base country in BAAD1, BAAD2, and GTD
    - Same home-base country: Iraq

- JAISH AL-TA'IFA AL-MANSURA
    - BAAD1 lists Jaish al-Taifa al-Mansoura, while BAAD2 and GTD lists JAISH AL-TA'IFA AL-MANSURA. TOPs lists Jaish al-Taifa al-Mansura as an alias of the BAAD2 spelling. The groups have the same start year and same home-base country. It appears just a different spelling, so it's included.
    - Same home-base country: Iraq
- MUJAHEDEEN SHURA COUNCIL
    - BAAD1 spelling is Mujahideen Shura Council, while BAAD2 and GTD list MUJAHEDEEN SHURA COUNCIL. It appears it is just a spelling difference, so it's included.
    - Same home-base country: Iraq
- 1920 REVOLUTION BRIGADES
    - Same name/Home-base country in BAAD1, BAAD2, and GTD
    - Same home-base country: Iraq
- AL-GAMA'AT AL-ISLAMIYYA (IG)
    - BAAD1 lists al-Gama'a al-Islamiyya (GAI), while BAAD2 and GTD list AL-GAMA'AT AL-ISLAMIYYA (IG). TOPs has Al-Gamat al-Islamiya as a group alias, so it appears to be just a spelling difference, so it's included.
    - Same home-base country: Egypt
- TAKFIR WAL-HIJRA (EXCOMMUNICATION AND EXODUS)
    - BAAD1 lists Takfir wa Hijra, while BAAD2 and GTD list TAKFIR WAL-HIJRA (EXCOMMUNICATION AND EXODUS). TOPs has Takfir Wa al-Hjira listed as a mother tongue name for the BAAD1 spelling. A website, http://www.trackingterrorism.org/group/takfir-wa-hijra states the name in two ways: Takfir wa Hijra and Takfir wal-Hijra. The website refers to the same activities that TOPs has for the group. Also, the GTD attack descriptions state the group name as Takfir wa Hijra, though the group name it is coded under is the one stated above. With this information I think it is the same group and I'm including it.
    - Different home-base country:
        - BAAD1: Iraq
        - BAAD2: Lebanon→Morocco
        - The group has unknown origins and TOPs lists lots of countries as home bases:Algeria, Egypt, France, Germany, Italy, Lebanon, Morocco, Netherlands, Spain, United Kingdom. "Takfir Wa Hijra is best analyzed as a pan-Islamic religious sect or cult," which explains why BAAD1 and 2 have different home-base countries. With the different home base countries listed, I'm coding Lebanon as it is listed first in the BAAD2 data.
- PALESTINIAN ISLAMIC JIHAD (PIJ)
    - Same name in BAAD1, BAAD2, and GTD
    - Different home-base country:
        - BAAD1: Israel

        - BAAD2: Syria
        - TOPs: The Palestinian Islamic Jihad (PIJ) is a violent offshoot of the Muslim Brotherhood… initially operated out of Egypt, but… was exiled to the Gaza Strip. … in 1987, the PIJ leadership was exiled to Lebanon. …In 1989…PIJ's headquarters in Damascus, where it has remained since.
        - The Syrian headquarters has been the headquarters for 9 years prior to when I am coding/including years, so I am coding the home-base as Syria.
- AMAL
    - Same name/Home-base country in BAAD1, BAAD2, and GTD
    - Same home-base country: Lebanon
- HIZBALLAH
    - BAAD1 spells it Hezbollah, but it is the same as BAAD2 and GTD.
    - Same home-base country: Lebanon
- AL-AQSA MARTYRS BRIGADE
    - BAAD1 lists it as al-Aqsa Martyrs Brigades, while BAAD2 and GTD list AL-AQSA MARTYRS BRIGADE. It seems likely it's just a spelling issue, so it's included.
    - Same home-base country: Israel
- AL-FATAH
    - Same name/Home-base country in BAAD1, BAAD2, and GTD
    - Same home-base country: Israel
- DEMOCRATIC FRONT FOR THE LIBERATION OF PALESTINE (DFLP)
    - Same name/Home-base country in BAAD1, BAAD2, and GTD
    - Same home-base country: Israel
- HAMAS (ISLAMIC RESISTANCE MOVEMENT)
    - Same name/Home-base country in BAAD1 (does not include parentheses), BAAD2, and GTD
    - Same home-base country: Israel
- KACH
    - Same name/Home-base country in BAAD1, BAAD2, and GTD
    - Same home-base country: Israel
- POPULAR FRONT FOR THE LIBERATION OF PALESTINE (PFLP)
    - Same name/Home-base country in BAAD1, BAAD2, and GTD
    - Same home-base country: Israel
- POPULAR RESISTANCE COMMITTEES
    - Same name/Home-base country in BAAD1, BAAD2, and GTD
    - Same home-base country: Israel
- TANZIM
    - Same name/Home-base country in BAAD1, BAAD2, and GTD
    - Same home-base country: Israel
- AL-HARAMAYN BRIGADES
    - Same name/Home-base country in BAAD1, BAAD2, and GTD

    - Same home-base country: Saudi Arabia
- AL-QA`IDA IN THE ARABIAN PENINSULA (AQAP)
    - BAAD1 spells it al-Qaeda in the Arabian Peninsula (AQAP), while BAAD2 and GTD spell is AL-QA`IDA IN THE ARABIAN PENINSULA (AQAP). It is the same group, so it's included.
    - Same home-base country: Saudi Arabia
- ADAN ABYAN ISLAMIC ARMY (AAIA)
    - BAAD1 spells it Aden Abyan Islamic Army (AAIA). BAAD2 and GTD spell it ADAN ABYAN ISLAMIC ARMY (AAIA). Same home-base country and it seems to be the same group with different spelling, so it's included.
    - Same home-base country: Yemen
- AL-QA`IDA
    - BAAD1 spells it al-Qaeda, while BAAD2 and GTD spell it AL-QA`IDA. It's just different spelling but same group, so it's included.
    - Different home-base country:
        - BAAD1: Pakistan
        - BAAD2: Afghanistan
        - Although Al-Qa'ida was operating in Pakistan after the US invasion of Afghanistan, the first home-base country (especially in the time period being coded) is Afghanistan so that is the home-base country in my data.
- HIZB-I-ISLAMI
    - Same name/Home-base country in BAAD1, BAAD2, and GTD
    - Same home-base country: Afghanistan
- JAYSH AL-MUSLIMIN (ARMY OF THE MUSLIMS)
    - BAAD1 lists it as Jaish-ul-Muslimin. BAAD2 and GTD list JAYSH AL-MUSLIMIN (ARMY OF THE MUSLIMS). TOPs says the Jaish-ul-Muslimin conducted 2 attacks in 2004, which is what GTD says of JAYSH AL-MUSLIMIN, indicating it is the same group.
    - Same home-base country: Afghanistan
- TALIBAN
    - Same name/Home-base country in BAAD1, BAAD2, and GTD
    - Same home-base country: Afghanistan
- ISLAMIC MOVEMENT OF UZBEKISTAN (IMU)
    - Same name/Home-base country in BAAD1, BAAD2, and GTD
    - Same home-base country: Uzbekistan
- REVOLUTIONARY WORKERS' COUNCIL (KAKUROKYO)
    - BAAD1 has Kakurokyo, while BAAD2 and GTD list REVOLUTIONARY WORKERS' COUNCIL (KAKUROKYO). TOPs has BAAD1 spelling and Revolutionary Workers' Council is listed as an alias, so it's included as the same group.
    - Same home-base country: Japan

- AL-MADINA
    - Same name/Home-base country in BAAD1, BAAD2, and GTD
    - Same home-base country: India
- ALL TRIPURA TIGER FORCE (ATTF)
    - Same name/Home-base country in BAAD1, BAAD2, and GTD
    - Same home-base country: India
- MAOIST COMMUNIST CENTER (MCC)
    - Same name/Home-base country in BAAD1, BAAD2, and GTD
    - Same home-base country: India
- NATIONAL DEMOCRATIC FRONT OF BODOLAND (NDFB)
    - Same name/Home-base country in BAAD1, BAAD2, and GTD
    - Same home-base country: India
- NATIONAL LIBERATION FRONT OF TRIPURA (NLFT)
    - Same name/Home-base country in BAAD1, BAAD2, and GTD
    - Same home-base country: India
- PEOPLE'S WAR GROUP (PWG)
    - Same name/Home-base country in BAAD1, BAAD2, and GTD
    - Same home-base country: India
- SAVE KASHMIR MOVEMENT
    - Same name/Home-base country in BAAD1, BAAD2, and GTD
    - Same home-base country: India
- STUDENTS ISLAMIC MOVEMENT OF INDIA (SIMI)
    - Same name/Home-base country in BAAD1, BAAD2, and GTD
    - Same home-base country: India
- UNITED LIBERATION FRONT OF ASSAM (ULFA)
    - Same name/Home-base country in BAAD1, BAAD2, and GTD
    - Same home-base country: India
- UNITED PEOPLE'S DEMOCRATIC SOLIDARITY (UPDS)
    - Same name/Home-base country in BAAD1, BAAD2, and GTD
    - Same home-base country: India
- ACHIK NATIONAL VOLUNTEER COUNCIL (ANVC)
    - Same name/Home-base country in BAAD1, BAAD2, and GTD
    - Same home-base country: India
- COMMUNIST PARTY OF INDIA-MAOIST (CPI-M)
    - Same name/Home-base country in BAAD1, BAAD2, and GTD
    - Same home-base country: India
- NATIONAL SOCIALIST COUNCIL OF NAGALAND-ISAK-MUIVAH (NSCN-IM)
    - Same name/Home-base country in BAAD1, BAAD2, and GTD
    - Same home-base country: India
- BODO LIBERATION TIGERS (BLT)
    - Same name/Home-base country in BAAD1, BAAD2, and GTD

    - Same home-base country: India
- KANGLEI YAWOL KANNA LUP (KYKL)
    - Same name/Home-base country in BAAD1, BAAD2, and GTD
    - Same home-base country: India
- AL-ARIFEEN
    - BAAD1 lists al-Aarifeen, while BAAD2 and GTD list AL-ARIFEEN. They have same home-base country. It appears to be a simple spelling difference, so it's included.
    - Same home-base country: Pakistan
- AL-BADR
    - Same name/Home-base country in BAAD1, BAAD2, and GTD
    - Same home-base country: Pakistan
- AL-MANSOORAIN
    - Same name in BAAD1, BAAD2, and GTD
    - Different home-base country:
        - BAAD1: India
        - BAAD2: India → Pakistan
        - TOPs: Al-Mansoorain is a Kashmiri separatist organization conducting attacks on Indian targets within the Kashmir valley. Al-Mansoorain is believed to be one of many fronts for the Pakistan-based Lashkar-e-Taiba (LeT) which have arisen since the U.N. banned LeT. Al-Mansoorain primarily employs suicide-bombing tactics. Al-Mansoorain primarily targets Central Reserve Police Force (CRPF) camps and government office buildings within Kashmir.
        - It appears the group is based in Kashmir, a disputed area. The BAAD2 has the group based in India for 2002, but then Pakistan for 2003-2007. Based on this (and the likely support) I'm coding the home-base country as Pakistan.
- AL-UMAR MUJAHIDEEN
    - Same name/Home-base country in BAAD1, BAAD2, and GTD
    - Same home-base country: Pakistan
- BALOCH LIBERATION ARMY (BLA)
    - Same name/Home-base country in BAAD1, BAAD2, and GTD
    - Same home-base country: Pakistan
- HARAKAT UL-MUDJAHIDIN (HUM)
    - Same name/Home-base country in BAAD1, BAAD2, and GTD
    - Same home-base country: Pakistan
- HIZBUL MUJAHIDEEN (HM)
    - Same name/Home-base country in BAAD1, BAAD2, and GTD
    - Same home-base country: Pakistan
- JAISH-E-MOHAMMAD (JEM)
    - Same name/Home-base country in BAAD1, BAAD2, and GTD
    - Same home-base country: Pakistan

- JAMIAT UL-MUJAHEDIN (JUM)
    - Same name/Home-base country in BAAD1, BAAD2, and GTD
    - Same home-base country: Pakistan
- LASHKAR-E-JHANGVI (LEJ)
    - Same name/Home-base country in BAAD1, BAAD2, and GTD
    - Same home-base country: Pakistan
- LASHKAR-E-TAIBA (LET)
    - Same name/Home-base country in BAAD1, BAAD2, and GTD
    - Same home-base country: Pakistan
- LASHKAR-E-OMAR
    - BAAD1 lists Lashkar-I-Omar, while BAAD2 and GTD list LASHKAR-E-OMAR. TOPs says BAAD1 spelling is an alias of the spelling in BAAD2, so the group is included.
    - Same home-base country: Pakistan
- MUTTAHIDA QAMI MOVEMENT (MQM)
    - Same name/Home-base country in BAAD1, BAAD2, and GTD
    - Same home-base country: Pakistan
- ISLAMIC SHASHANTANTRA ANDOLON (ISA)
    - Same name/Home-base country in BAAD1, BAAD2, and GTD
    - Same home-base country: Bangladesh
- PURBO BANGLAR COMMUNIST PARTY (PBCP)
    - Same name/Home-base country in BAAD1, BAAD2, and GTD
    - Same home-base country: Bangladesh
- JAMA'ATUL MUJAHIDEEN BANGLADESH (JMB)
    - BAAD1 lists Jamatul Mujahedin Bangladesh, while BAAD2 and GTD list JAMA'ATUL MUJAHIDEEN BANGLADESH (JMB). This appears to be a spelling difference, so it's included.
    - Same home-base country: Bangladesh
- DEMOCRATIC KAREN BUDDHIST ARMY (DKBA)
    - Same name/Home-base country in BAAD1, BAAD2, and GTD
    - Same home-base country: Myanmar
- KAREN NATIONAL UNION
    - BAAD1 lists Kayin National Union (KNU), while BAAD2 and GTD list KAREN NATIONAL UNION. TOPs has the group under the BAAD1 name, and lists the spelling for BAAD2 as an alias, so it's included.
    - Same home-base country: Myanmar
- VIGOROUS BURMESE STUDENT WARRIORS
    - Same name/Home-base country in BAAD1, BAAD2, and GTD
    - Same home-base country: Myanmar
- GOD'S ARMY
    - Same name/Home-base country in BAAD1, BAAD2, and GTD

    - Same home-base country: Myanmar
- LIBERATION TIGERS OF TAMIL EELAM (LTTE)
    - Same name/Home-base country in BAAD1, BAAD2, and GTD
    - Same home-base country: Sri Lanka
- COMMUNIST PARTY OF NEPAL- MAOIST (CPN-M)
    - BAAD1 lists Communist Party of Nepal-Maoists (CPN-M), while BAAD2 and GTD list the group with the plural, as stated above. It appears to be the same group with a small spelling difference.
    - Same home-base country: Nepal
- PATTANI UNITED LIBERATION ORGANIZATION (PULO)
    - Same name/Home-base country in BAAD1, BAAD2, and GTD
    - Same home-base country: Thailand
- ABU SAYYAF GROUP (ASG)
    - Same name/Home-base country in BAAD1, BAAD2, and GTD
    - Same home-base country: Philippines
- ALEX BONCAYAO BRIGADE (ABB)
    - Same name/Home-base country in BAAD1, BAAD2, and GTD
    - Same home-base country: Philippines
- MORO ISLAMIC LIBERATION FRONT (MILF)
    - Same name/Home-base country in BAAD1, BAAD2, and GTD
    - Same home-base country: Philippines
- MORO NATIONAL LIBERATION FRONT (MNLF)
    - Same name/Home-base country in BAAD1, BAAD2, and GTD
    - Same home-base country: Philippines
- NEW PEOPLE'S ARMY (NPA)
    - Same name/Home-base country in BAAD1, BAAD2, and GTD
    - Same home-base country: Philippines
- FREE ACEH MOVEMENT (GAM)
    - Same name/Home-base country in BAAD1, BAAD2, and GTD
    - Same home-base country: Indonesia
- ISLAMIC DEFENDERS' FRONT (FPI)
    - BAAD1 lists Front for Defenders of Islam (FPI), while BAAD2 and the GTD list ISLAMIC DEFENDERS' FRONT (FPI). TOPs has the group under the BAAD1 name, with Islamic Defenders Front listed as an alias, so it's included.
    - Same home-base country: Indonesia
- JEMAAH ISLAMIYA (JI)
    - Same name/Home-base country in BAAD1, BAAD2, and GTD
    - Same home-base country: Indonesia
- FREE PAPUA MOVEMENT (OPM-ORGANISASI PAPUA MERDEKA)

    - BAAD1 lists Free Papua Movement (OPM). It appears the abbreviation is for what is written out in BAAD2 and GTD, FREE PAPUA MOVEMENT (OPM-ORGANISASI PAPUA MERDEKA).
    - Same home-base country: Indonesia
- LASKAR JIHAD
    - Same name/Home-base country in BAAD1, BAAD2, and GTD
    - Same home-base country: Indonesia

Appendix D

Data Collection Training Protocol:

You are coding counterterrorism policies used toward the terrorist group for each year the group is in operation. You will be given the group and the years to be coded as well as the country serving as the base of operations (to serve as the initial variable for each CT policy).

Begin by looking through the open-source search document provided with the BAAD II data. Use the links below and search engines previously provided as deemed necessary to supplement the information provided in the search document. Please add any new documents found to the search document and save the file with a new date (e.g. IRA_12.2012).

Some Potential Sources to Start

START Terrorist Profile Pages – Taken from former TKB/MIPT Data
http://www.start.umd.edu/data/tops/

START Global Terrorism Database – Incident centered database
http://www.start.umd.edu/data/gtd/

Global Security – Paramilitary Organizations
http://www.globalsecurity.org/military/world/para/index.html

South Asian Terrorism Portal
http://satp.org/

Naval Post-Graduate School – Click on Terrorism & Terrorist Group Profiles
http://www.nps.edu/Library/Research/SubjectGuides/SpecialTopics/

Center for Defense Information
http://www.cdi.org/

Transnational & Non-State Armed Groups
http://www.armed-groups.org/

Terrorism 101
http://www.terrorism101.org/organizations/index.html

Jamestown Foundation's Global Terrorism Analysis
http://jamestown.org/terrorism/index.php

The Information Project
http://www.theinformationproject.org/index.php

The Investigative Project on Terrorism
http://www.investigativeproject.org/profile/all/

Prophet of Doom – Definitely biased, but may have some useful information if you can't find it elsewhere, list of groups on the right side of the screen
http://www.prophetofdoom.net/Islamic_Clubs_Abu_Nidal_Group.Islam

Transnational Terrorism, Security, & the Rule of Law
http://www.transnationalterrorism.eu/publications.php#TContext

Congressional Research Service Reports
http://digital.library.unt.edu/govdocs/crs/

Institute for the Study of Violent Groups
http://www.isvg.org/

Google Scholar – Searches large contingent of peer reviewed journal articles

http://scholar.google.com/
Lexis Nexis (guided news search, global, filter by year…see below for details)
The Military Balance
For non-state groups there is some information. Access through: Online / UA 15 L65 WWW
The UCDP Datasets
http://www.pcr.uu.se/research/ucdp/datasets/
Columbia International Affairs Online
CSA Worldwide Political Science Abstracts
EBSCO Host

Remember to Document Full text sources by copy and pasting full article into an MSWord document.

Search Engines:
You will also use the search engines provided in the prior training to find information for coding the counterterrorism variables.

Coding:
These counterterrorism variables will be coded into an excel file. For each variable you will code a 1 if the tactic was used toward the group in that year. You code a 0 whenever you are sure that something did not happen and -99 when there is insufficient information to judge whether the tactic was used. In some cases the lack of information is evidence of absence, that the tactic was not used. For example, if a curfew was used such information would be discussed in the media so if there is no information on a curfew we can assume that this tactic was not used and code a 0. These variables are automatically deemed 0 if there is no information and they are noted as such in the codebook with no option for -99 listed.

If information is found about a counterterrorism policy being implemented in a general fashion, not specified to target a specific group, you will put this information in the extra tab labeled "General CT Policies." You will list the years in the time period we're coding (1998-2007) the CT policy was in effect, the country implementing the policy, and describe the policy (preferably indicating if it is one of the specified types we're coding for specific groups). Then indicate if the country implemented the policy within that country's borders or abroad, and if abroad list the country name and number in which the policy was implemented.

Appendix E

Codebook for longitudinally coded counterterrorism variables

Cease Fire:

ORGCSFR:
Cease Fire: Country –Based on where the organization is based and/or operating, did that country issue or maintain a cease fire with the group in this year?
0 No
1 Yes

ORGGRPCSFR:
Cease Fire: Group –Did the group issue or maintain a cease fire in this year (not necessarily agreed to by the government of the home-base country)?
0 No
1 Yes

ORGCSFRABD:
Cease Fire: Abroad –Did a foreign country issue/maintain a cease fire with this group in this year?
0 No
1 Yes –a foreign country issued/maintained a ceasefire with this group within the home-base country of the organization
2 Yes –a foreign country issued/maintained a ceasefire with this group outside the home-base country's borders
3 Yes –both 1 and 2 occurred within this year

Fill in ORGSCFRABD Country number if coded 1, 2 or 3 to variable above. List the country number (see tab 3) and put in parentheses what it was coded. For example, if the USA issued a ceasefire with Al Qaeda in Afghanistan, and Pakistan issued a ceasefire with Al Qaeda in Pakistan then you would code: 2 (1), 770 (2) and the ORGCSFRABD variable would be a 3 because both a 1 and 2 occurred.

Terrorist Financing:

ORGTFNG:
Terrorist Financing –Based on where the organization is based and/or operating, did that country implement/maintain methods to counter this group's terrorist financing within the country in this year?
-99 Not known
0 No
1 Yes

ORGTFNGABD:

Terrorist Financing: Abroad –Did a foreign country implement/maintain methods to counter this group's terrorist financing abroad in this year?
-99 Not known
0 No
1 Yes –a foreign country implemented/maintained methods to counter terrorist financing with this group within the home-base country of the organization
2 Yes –a foreign country issued/maintained methods to counter terrorist financing with this group outside the home-base country's borders
3 Yes –both 1 and 2 occurred within this year

Curfew:

ORGCRFW:
Curfew –Based on where the organization is based and/or operating, did that country issue or maintain a curfew to counter this terrorist group in this year?
0 No
1 Yes

ORGCRFWABD:
Curfew: Abroad –Did a foreign country issue or maintain a curfew toward this group in this year?
0 No
1 Yes –a foreign country issued/maintained a curfew that affected this group within the home-base country of the organization
2 Yes –a foreign country issued/maintained a curfew that affected this group outside the home-base country's borders
3 Yes –both 1 and 2 occurred within this year

Mass Arrests:

ORGMSAR:
Mass Arrests –Based on where the organization is based and/or operating, did that country conduct mass arrests (defined as 3 or more people at one time) to counter this terrorist group in this year?
-99 Not known
0 No
1 Yes

ORGMSARABD:
Mass Arrests: Abroad –Did a foreign country conduct mass arrests (defined as 3 or more people at one time) abroad to counter this terrorist group in this year?
-99 Not known
0 No
1 Yes –a foreign country conduct mass arrests to counter this group within the home-base country of the organization
2 Yes –a foreign country conduct mass arrests to counter this group outside the home-base country's borders

3 Yes –both 1 and 2 occurred within this year

Internment Camps:

ORGINTR:
Internment Camps –Based on where the organization is based and/or operating, did that country use internment camps to counter this terrorist group in this year?
-99 Not known
0 No
1 Yes

ORGINTRABD:
Internment Camps: Abroad –Did a foreign country use internment camps to counter this terrorist group in this year?
-99 Not known
0 No
1 Yes –a foreign country used internment camps to counter this group within the home-base country of the organization
2 Yes –a foreign country used internment camps to counter this group outside the home-base country's borders
3 Yes –both 1 and 2 occurred within this year

Check Points:

ORGCHTP:
Check Points –Based on where the organization is based and/or operating, did that country use check points to counter this terrorist group in this year?
0 No
1 Yes

ORGCHPTABD:
Check Points: Abroad –Did a foreign country use check points to counter this terrorist group in this year?
0 No
1 Yes –a foreign country used check points to counter this group within the home-base country of the organization
2 Yes –a foreign country used check points to counter this group outside the home-base country's borders
3 Yes –both 1 and 2 occurred within this year

Stop and Frisk:

ORGSPFK:

Stop and Frisk –Based on where the organization is based and/or operating, did that country use stop and frisk to counter this terrorist group in this year?
-99 Not known
0 No
1 Yes

ORGSPFKABD:
Stop and Frisk: Abroad –Did a foreign country use stop and frisk to counter this terrorist group in this year?
-99 Not known
0 No
1 Yes –a foreign country used stop and frisk to counter this group within the home-base country of the organization
2 Yes –a foreign country used stop and frisk to counter this group outside the home-base country's borders
3 Yes –both 1 and 2 occurred within this year

Torture:

ORGTORT:
Torture –Based on where the organization is based and/or operating, did that country use torture to counter this terrorist group in this year?
-99 Not known
0 No
1 Yes

ORGTORTABD:
Torture: Abroad –Did a foreign country use torture to counter this terrorist group in this year?
-99 Not known
0 No
1 Yes –a foreign country used torture counter this group within the home-base country of the organization
2 Yes –a foreign country used torture to counter this group outside the home-base country's borders
3 Yes –both 1 and 2 occurred within this year

Deradicalization or disengagement Programs:

ORGDRAD:
Deradicalization Program –Based on where the organization is based and/or operating, did that country implement or maintain a deradicalization or disengagement program to counter this terrorist group in this year?
-99 Not known
0 No
1 Yes

ORGDRADABD:
Deradicalization Program: Abroad –Did a foreign country implement or maintain a deradicalization or disengagement program to counter this terrorist group in this year?

-99 Not known
0 No
1 Yes –a foreign country implemented or maintained a deradicalization or disengagement program to counter this group within the home-base country of the organization
2 Yes –a foreign country implemented or maintained a deradicalization or disengagement program to counter this group outside the home-base country's borders
3 Yes –both 1 and 2 occurred within this year

Other Counterterrorism Policies:

ORGOTHR:
Other Counterterrorism–Based on where the organization is based and/or operating, did that country use another counterterrorism policy or policies toward this group in this year?

0 No
1 Yes

ORGOTHRLST:
Other Counterterrorism: List –List the other type(s) of counterterrorism policy implemented/maintained toward this group.

ORGOTHRABD:
Other Counterterrorism: Abroad –Did a foreign country engage other type(s) of counterterrorism policy or policies toward this group in this year?

0 No
1 Yes

ORGOTHRABLST:
Other Counterterrorism: Abroad List –List any other type(s) of counterterrorism policy were implemented/maintained by a foreign country toward this group.

Appendix F

Data collection training exercises to supplement the codebook.

Ceasefire:

Definition –"A **ceasefire** (or **truce**) is a temporary stoppage of a war in which each side agrees with the other to suspend aggressive actions. Ceasefires may be declared as part of a formal treaty, but they have also been called as part of an informal understanding between opposing forces. An armistice is a formal agreement to end fighting."

Source: Ceasefire. (n.d.). Retrieved from Ceasefire Wiki: http://en.wikipedia.org/wiki/Ceasefire

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Bodo Liberation Tigers (BLT) - Former Terrorist Group of Assam

"On December 6, 2003, 2641 cadres of the Bodo Liberation Tigers (BLT) renounced violence and surrendered along with arms and ammunition at Kokrajhar, marking an end to seven years of insurgency. On the following day, an interim 12-member executive council of the Bodoland Territorial Council (BTC) was formed in Kokrajhar.

A Memorandum of Settlement (MoS) for the creation of the BTC was reached at a tripartite meeting held in New Delhi on February 10, 2003, between the representatives of Union Government, Assam Government and a BLT delegation. The main provisions of the MoS relate 'to creation of the BTC, an autonomous self-governing body within the State of Assam and under the provisions of the Sixth Schedule of the Constitution of India to fulfill economic, educational and linguistic aspirations, socio-cultural and ethnic identity of the Bodos; and to speed up the infrastructure development in BTC area.' The BTC would comprise 3,082 villages in four districts--Kokrajhar and the three yet to be created - Chirang, Udalguri and Baska. The BTC would have 40 elected representatives and the Assam Government would nominate six more. Of the elected representatives, 30 seats would be reserved for tribals, five for non-tribals and the remaining five would be open for general contest.

The BLT, prior to its en-masse surrender, had been observing a cease-fire with the Government since July 14, 1999. This cease-fire was formally agreed to in March 2000 and subsequently at the January 20, 2003, tripartite meeting was extended till February 21, 2003."

Source: South Asia Terrorism Portal. (n.d.) Bodo Liberation Tigers (BLT) – Former Terrorist Group of Assam. Retrieved from http://www.satp.org/satporgtp/countries/india/states/assam/terrorist_outfits/bltf.htm

Cease Fire:

Coding: List group/country/year(s)

ORGCSFR:

Cease Fire: Country –Based on where the organization is based and/or operating, did that country issue or maintain a cease fire with the group in this year?
0 No
1 Yes

ORGGRPCSFR:
Cease Fire: Group –Did the group issue or maintain a cease fire in this year (not necessarily agreed to by the government of the home-base country)?
0 No
1 Yes

ORGCSFRABD:
Cease Fire: Abroad –Did a foreign country issue/maintain a cease fire with this group in this year?
0 No
1 Yes –a foreign country issued/maintained a ceasefire with this group within the home-base country of the organization
2 Yes –a country that is not the home-base of the organization issued/maintained a ceasefire with this group within its own borders
3 Yes –both 1 and 2 occurred within this year

ORGSCFRABD Country name

Financing:

Code for any tactic taken to counter monetary funds/financing to terrorist groups.

Example 1:
The Official IRA since 1972

"Most recently, there have been allegations of criminality against former senior Official IRA figure Sean Garland, who was accused in 2005 by the United States of helping to produce and circulate counterfeit US dollars allegedly printed in North Korea."

Source: Official Irish Republican Army. (n.d.). Retrieved from Official Irish Republican Army Wiki: http://en.wikipedia.org/wiki/Official_Irish_Republican_Army

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Terrorist Financing:

Coding: List group/country/year(s)

ORGTFNG:

Terrorist Financing –Based on where the organization is based and/or operating, did that country implement/maintain methods to counter this group's terrorist financing within the country in this year?

-99 Not known
0 No
1 Yes

ORGTFNGABD:
Terrorist Financing: Abroad –Did a foreign country implement/maintain methods to counter this group's terrorist financing abroad in this year?

-99 Not known
0 No
1 Yes –a foreign country implemented/maintained methods to counter terrorist financing with this group within the home-base country of the organization
2 Yes –a country that is not the home-base of the organization implemented/maintained methods to counter terrorist financing with this group within its own borders
3 Yes –both 1 and 2 occurred within this year

ORGTFNGABD Country name

Example 2:

PIRA

"PIRA is noted for its involvement in organized crime, which is believed to be the group's chief method of financing. Members are connected primarily to armed robberies, hijackings, smuggling contraband goods (including alcohol and tobacco), drugs, extortion and money laundering; they are heavily involved in oil fraud—the smuggling, laundering and misuse of rebated fuel. [5] Particularly profitable for the PIRA has been involvement in counterfeiting; investigations by police in Northern Ireland have uncovered sophisticated counterfeiting rings that produce high-quality false driving licenses, insurance certificates, and euros and sterling notes. The group also conducts bank robberies and is believed to have been involved in the December 2004 robbery of the Northern Bank. Gardai (Irish police) discovered that individuals connected to the PIRA had laundered some of the money taken from the robbery. The investigation also led to Britain and Bulgaria where an Irish-based company intended to purchase property with the money. [6]"

Source: Provisional Irish Republican Army. (n.d.) Retrieved from Provisional Irish Republican Army Wiki: http://en.wikipedia.org/wiki/Provisional_Irish_Republican_Army

Terrorist Financing:
Coding: List group/country/year(s)

ORGTFNG:
Terrorist Financing –Based on where the organization is based and/or operating, did that country implement/maintain methods to counter this group's terrorist financing within the country in this year?

-99 Not known
0 No
1 Yes

ORGTFNGABD:
Terrorist Financing: Abroad –Did a foreign country implement/maintain methods to counter this group's terrorist financing abroad in this year?

-99 Not known
0 No
1 Yes –a foreign country implemented/maintained methods to counter terrorist financing with this group within the home-base country of the organization
2 Yes –a country that is not the home-base of the organization implemented/maintained methods to counter terrorist financing with this group within its own borders
3 Yes –both 1 and 2 occurred within this year

ORGTFNGABD Country name

Curfew:

"Bannu: The dwellers of Bannu will face a 24-hour curfew imposed in their area to thwart terror attacks in the 'most sensitive' province of Khyber Pakhtunkhwa**.**

The imposition will be from 7m (local time) today (Saturday) till 5pm next day, confirmed District Police Officer. He moreover said that the restriction will not be effective on processions relating to Muharram-ul-Haram.

Peshawar is being considered as the most sensitive city pertaining to the law & order situation on the eve of Ashura (10th Muharram)."

Source: Khan, N. (November 24, 2012). 24hr curfew in Bannu to avert terror attacks. *The News Tribe.* Retrieved from http://www.thenewstribe.com/2012/11/24/24hr-curfew-in-bannu-to-avert-terror-attacks/

Curfew:
Coding: List group/country/year(s)

ORGCRFW:
Curfew –Based on where the organization is based and/or operating, did that country issue or maintain a curfew to counter this terrorist group in this year?

0 No
1 Yes

ORGCRFWABD:
Curfew: Abroad –Did a foreign country issue or maintain a curfew toward this group in this year?
0 No
1 Yes –a foreign country issue/maintained a curfew toward this group within the home-base country of the organization
2 Yes –a country that is not the home-base of the organization issue/maintained a curfew toward this group within its own borders
3 Yes –both 1 and 2 occurred within this year

ORGCRFWABD Country name

Mass Arrest:

Code if there is indication of more than 2 people from the terrorist group you're coding being arrested at one time.

Example:

"The IRA has received aid from a variety of groups and countries and considerable training and arms from Libya and, at one time, the PLO. Also, the IRA is suspected of receiving funds and arms from sympathizers in the United States. Similarities in operations suggest links to the ETA. In August 2002, three suspected IRA members were arrested in Colombia on charges of assisting the FARC to improve its explosives capabilities.

In July 2002, the IRA reiterated its commitment to the peace process and apologized to the families of what it called "non-combatants" who had been killed or injured by the IRA. The IRA is organized into small, tightly knit cells under the leadership of the Army Council.

In April 2002, the IRA conducted a second act of arms decommissioning that the Independent International Commission on Decommissioning (IICD) called "varied" and "substantial." In late October, however, the IRA suspended contact with the IICD. The IRA retains the ability to conduct paramilitary operations. The IRA's extensive criminal activities reportedly provide the organizations with millions of dollars each year."

Source: Global Security. (n.d.) Irish Republican Army (IRA). Retrieved from http://www.globalsecurity.org/military/world/para/ira.htm

Mass Arrests:
Coding: List group/country/year(s)

ORGMSAR:

Mass Arrests –Based on where the organization is based and/or operating, did that country conduct mass arrests (defined as 3 or more people at one time) to counter this terrorist group in this year?

-99 Not known
0 No
1 Yes

ORGMSARABD:
Mass Arrests: Abroad –Did a foreign country conduct mass arrests (defined as 3 or more people at one time) abroad to counter this terrorist group in this year?

-99 Not known
0 No
1 Yes –a foreign country conduct mass arrests to counter this group within the home-base country of the organization
2 Yes –a country that is not the home-base of the organization conduct mass arrests to counter this group within its own borders
3 Yes –both 1 and 2 occurred within this year

ORGMSARABD Country name

Internment camps:

For clarification: Sometimes, referred to as administrative detention, internment camps are to be coded when multiple people are taken into custody to prevent terrorism/protect people and not given the normal provisions of arrest/custody for a crime. Examples of definitions/legal provisions for internment:

- Article 78 of the Fourth Geneva Convention 1949, which states that "If the Occupying Power considers it necessary, for imperative reasons of security, to take safety measures concerning protected persons, it may, at the most, subject them to assigned residence or to internment."
- Act in the UK: The UK enacted a "series of Acts intended to introduce a form of administrative detention to Northern Ireland under the auspices of the Prevention of Terrorism (Temporary Provisions) Act 1974. This Act allowed the security forces to apprehend and detain persons suspected of terrorist activities without trial for an unlimited period. The introduction of the Act led directly to the creation of internment camps (particularly Long Kesh (the Maze) and the prison ship HMS *Maidstone* where suspects were detained, some for protracted periods."

- USA PATRIOT Act: "The Act expanded the authority of law enforcement agencies to use administrative detention for the stated purpose of fighting terrorism in the United States and abroad."

Source: Administrative detention. (n.d.) Retrieved from Administrative detention Wiki: http://en.wikipedia.org/wiki/Administrative_detention

Example: Northern Ireland

"From 1971 internment began, beginning with the arrest of 342 suspected republican guerrillas and paramilitary members on August 9. They were held at HM Prison Maze then called Long Kesh. By 1972, 924 men were interned. Serious rioting ensued, and 23 people died in three days. The British government attempted to show some balance by arresting some loyalist paramilitaries later, but out of the 1,981 men interned, only 107 were loyalists. Internment was ended in 1975, but had resulted in increased support for the IRA and created political tensions which culminated in the 1981 Irish Hunger Strike and the death of Bobby Sands. The imprisonment of people under anti-terrorism laws specific to Northern Ireland continued until the Good Friday Agreement of 1998, but these laws required the right to a fair trial be respected. However non-jury Diplock courts tried paramilitary-related trials, to prevent jury intimidation. Internment had previously been used as a means of repressing the Irish Republican Army. On all these occasions, internment has had a somewhat limited success."

Source: List of concentration and internment camps. (n.d.). Retrieved from list of concentration and internment camps Wiki: http://en.wikipedia.org/wiki/List_of_concentration_and_internment_camps

Internment Camps:
Coding: List group/country/year(s)

ORGINTR:
Internment Camps –Based on where the organization is based and/or operating, did that country use internment camps to counter this terrorist group in this year?

-99 Not known
0 No
1 Yes

ORGINTRABD:
Internment Camps: Abroad –Did a foreign country use internment camps to counter this terrorist group in this year?

-99 Not known
0 No
1 Yes –a foreign country use internment camps to counter this group within the home-base country of the organization
2 Yes –a country that is not the home-base of the organization use internment camps to counter this group within its own borders
3 Yes –both 1 and 2 occurred within this year

ORGINTRABD Country name

Check points:

Example: 1

"On May 10, the official Israel Defense Forces blog posted an article titled 'The 2012 Terror Attacks Against Israel You Never Heard About.' The title is somewhat misleading, since in fact, none of these attacks actually took place: They were thwarted by the IDF's unsung but daily counterterrorism operations in the West Bank.

While one or two items on the list seem questionable, most could undoubtedly have been deadly attacks. There are no innocent reasons for carting bombs around.

On April 11, for instance, soldiers caught a Palestinian at a checkpoint near Nablus 'carrying improvised explosive devices, three knives and 50 bullets.' On April 21, two Palestinian teens were caught near Tapuach Junction with five pipe bombs, a gun and ammunition. On April 24, soldiers found four improvised bombs in the bags of two Palestinians crossing a checkpoint near Jericho. On April 28, two Palestinians were caught trying to smuggle four pipe bombs through yet another West Bank checkpoint. On May 7, soldiers caught a Palestinian teen with three pipe bombs near Tapuach Junction. On May 10, two other Palestinians were caught near Tapuach Junction 'carrying 2 explosive devices and 3 prepped firebombs.'"

Source: Israel Defense Forces. (2012). The 2012 Terror Attacks Against Israel You Never Heard About. Retrieved from http://www.idfblog.com/2012/05/10/the-2012-terror-attacks-against-israel-you-never-heard-about/

Check Points:
Coding: List group/country/year(s)

ORGCHTP:
Check Points –Based on where the organization is based and/or operating, did that country use check points to counter this terrorist group in this year?
0 No
1 Yes

ORGCHPTABD:
Check Points: Abroad –Did a foreign country use check points to counter this terrorist group in this year?
0 No
1 Yes –a foreign country use check points to counter this group within the home-base country of the organization
2 Yes –a country that is not the home-base of the organization use check points to counter this group within its own borders

3 Yes –both 1 and 2 occurred within this year

ORGCHPTABD Country name

Example: 2

Algeria:

January 1998*: "In response to increasing FLN (*Front de Libération National)* terrorism the French authorities seal off the Arab quarter, known as the Casbah, with military checkpoints."

Source: German, M. (2007).*Thinking Like a Terrorist: Insights of a Former FBI Undercover Agent.* Lincoln, NE: Potomac Books, Inc. p. 114.
*Note the date was changed to fit within the time period for coding.

Check Points:
Coding: List group/country/year(s)

ORGCHTP:
Check Points –Based on where the organization is based and/or operating, did that country use check points to counter this terrorist group in this year?
0 No
1 Yes

ORGCHPTABD:
Check Points: Abroad –Did a foreign country use check points to counter this terrorist group in this year?
0 No
1 Yes –a foreign country use check points to counter this group within the home-base country of the organization
2 Yes –a country that is not the home-base of the organization use check points to counter this group within its own borders
3 Yes –both 1 and 2 occurred within this year

ORGCHPTABD Country name

Stop and Frisk:

Definition: "*The situation in which a police officer who is suspicious of an individual detains the person and runs his hands lightly over the suspect's outer garments to determine if the person is carrying a concealed weapon."* –source: http://legal-dictionary.thefreedictionary.com/Stop+and+Frisk

This variable is to code stop and frisk practices directed at specific suspected group members for the group being coded or toward suspected terrorists generally (which would be put in the second tab on the excel database).

Example:

Nigeria: Anti Terrorist Squad Frisk Vehicles in Abuja
BY MISBAHU BASHIR, 28 AUGUST 2012

"An anti-terrorist squad yesterday took over control of the Airport road military check point and used sniffer dogs to check all vehicles going into the Nigeria's capital, Abuja.

The dog's handler, leading it by the leash went round each vehicle as dog sniffed for signs of explosives or weapons.

This laborious process made the road almost impassible as endless queues of vehicles snaked back for several kilometers.

The search by the police counter terrorist team began in the morning, trapping passengers going into town from the Nnamdi Azikiwe International Airport as well as thousands of commuters coming into Abuja from the southern part of the country."

Source: Bashir, M. (August 28, 2012). Nigeria: Anti Terrorist Squad Frisk Vehicles in Abuja. *Daily Trust.* Retrieved from http://allafrica.com/stories/201208280538.html

Stop and Frisk:
Coding: List group/country/year(s)

ORGSPFK:
Stop and Frisk –Based on where the organization is based and/or operating, did that country use stop and frisk to counter this terrorist group in this year?

-99 Not known
0 No
1 Yes

ORGSPFKABD:
Stop and Frisk: Abroad –Did a foreign country use stop and frisk to counter this terrorist group in this year?

-99 Not known
0 No
1 Yes –a foreign country use stop and frisk to counter this group within the home-base country of the organization
2 Yes –a country that is not the home-base of the organization use stop and frisk to counter this group within its own borders
3 Yes –both 1 and 2 occurred within this year

ORGSPFKABD Country name

Torture:

Code if there is a direct reference to torture or a known method of torture (e.g. waterboarding, sleep deprivation).

Example:

"Mohammed was indicted in New York in 1996 for his alleged involvement in a Philippines-based plot to blow up 12 US-bound commercial airliners in a 48-hour time period. The indictment, made public in 1998, and federal arrest warrant provide details of how he operated within al Qaeda. The documents were unsealed in 1998 after Ramzi Yousef, Mohammed's nephew, was sentenced for his role in the 1996 airliner plot. Serious concerns have been expressed over Mohammed's treatment while in US custody and the possible use of statements obtained through torture as evidence against him. During his Combatant Status Review Tribunal (CSRT) hearing on March 10, 2007, Mohammed claimed that he was tortured while in US custody and that as a result, he made false confessions about both himself and others. In addition, he alleged that his children were detained and abused as well. The details of Mohammed's allegations from the transcript of his CSRT hearing are redacted, but the CIA has acknowledged "waterboarding" him 183 times while holding him in secret custody in 2002 and 2003. Waterboarding, a torture technique in which a prisoner is made to believe he is drowning, violates both the federal anti-torture statute and the War Crimes Act."

Source: Human Rights Watch. (2012). Khalid Sheikh Mohammed. Retrieved from http://www.hrw.org/news/2012/10/26/khalid-sheikh-mohammed

Torture:
Coding: List group/country/year(s)

ORGTORT:
Torture –Based on where the organization is based and/or operating, did that country use torture to counter this terrorist group in this year?

-99 Not known
0 No
1 Yes

ORGTORTABD:
Torture: Abroad –Did a foreign country use torture to counter this terrorist group in this year?

-99 Not known
0 No
1 Yes –a foreign country use to torture counter this group within the home-base country of the organization
2 Yes –a country that is not the home-base of the organization use torture to counter this group within its own borders
3 Yes –both 1 and 2 occurred within this year

ORGTORTABD Country name

Deradicalization/disengagement programs:

Rehabilitation and Deradicalization: Saudi Arabia's Counterterrorism Successes and Failures
Rob Wagner

August 01, 2010

"Since Saudi Arabia implemented its rehabilitation program to combat extremist ideology among Al-Qaeda captives and released Guantanamo Bay detainees, Western counterterrorism experts have been divided over the program's long-term effectiveness.

Characterized as "soft' rehabilitation, the Saudi government has seen only a 10 percent recidivism rate among program graduates returned to Saudi society. The Saudi program and its related counterterrorism efforts appear remarkably successful given that the recidivism rate in Western nations – specifically the United States and the United Kingdom – ranges from 60 to 70 percent.[1] [2] But is seven years long enough to accurately gauge the success of a program that is novel, if not radical, in its concept? The answer is no. Yet it appears that Saudi Arabia is pursuing a path to stem Islamic militancy that could achieve long-term positive results.

The Saudi program, combined with its expansive counterterrorism policies, renews the debate of rehabilitation versus incarceration as the most effective means to deter criminal activity. Rehabilitative efforts in the United States criminal justice system gave way to stiffer prison sentences in the 1970s. Little consideration for rehabilitation as an alternative has been given since then. The key component in the Saudi counterterrorism efforts is religious instruction to return militants to the right path of Islam. Secular nations have long been skeptical of using religion as a tool to rehabilitate prisoners, but critics fail to appreciate the role Islam plays in Saudi society."

Source: Wagner, R. (2010). Rehabilitation and Deradicalization: Saudi Arabia's Counterterrorism Successes and Failures. *Peace and Conflict Monitor.* Retrieved from http://www.monitor.upeace.org/archive.cfm?id_article=735

Deradicalization or disengagement Programs:

Coding: List group/country/year(s)

ORGDRAD:
Deradicalization Program –Based on where the organization is based and/or operating, did that country implement or maintain a deradicalization or disengagement program to counter this terrorist group in this year?

-99 Not known
0 No
1 Yes

ORGDRADABD:
Deradicalization Program: Abroad –Did a foreign country implement or maintain a deradicalization or disengagement program to counter this terrorist group in this year?

-99 Not known
0 No
1 Yes –a foreign country implement or maintain a deradicalization or disengagement program counter this group within the home-base country of the organization
2 Yes –a country that is not the home-base of the organization implement or maintain a deradicalization or disengagement program to counter this group within its own borders
3 Yes –both 1 and 2 occurred within this year

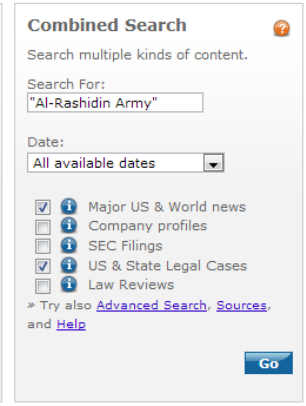
ORGDRADABD Country name

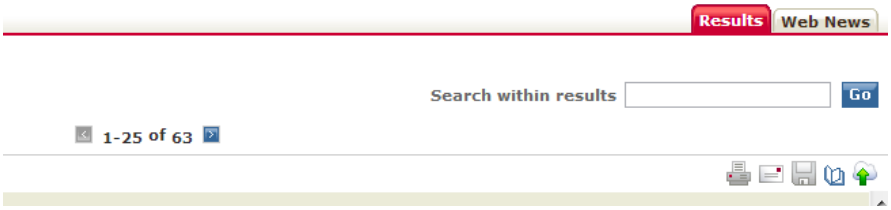
Appendix G

Search Protocol

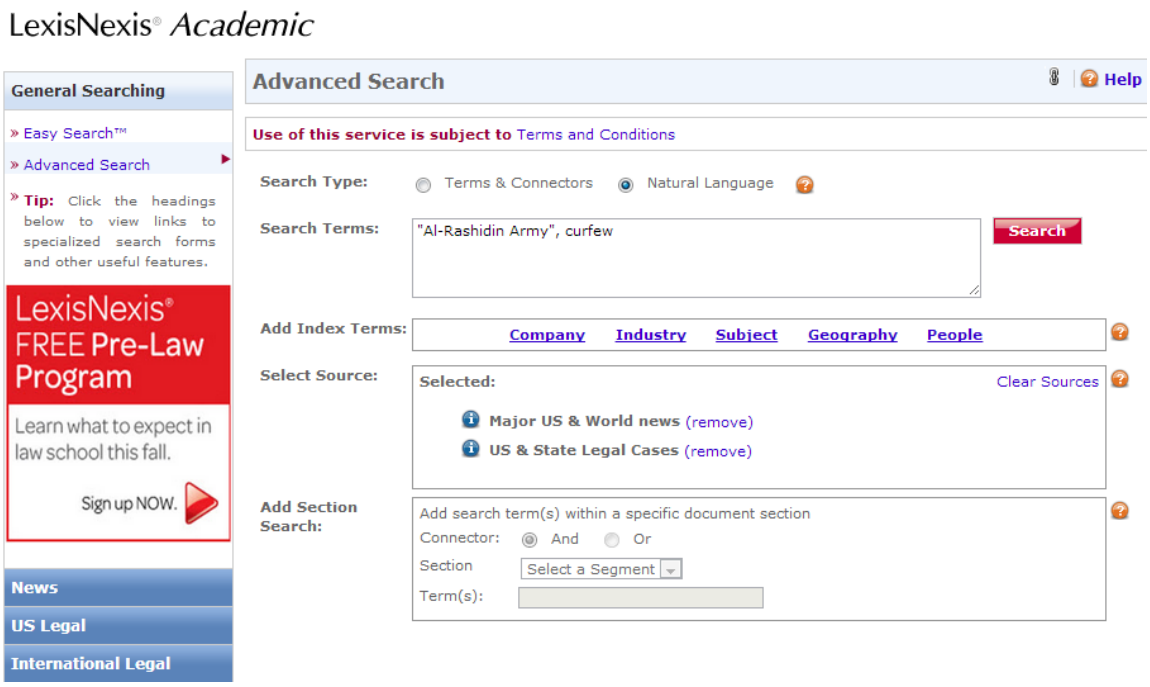
How to search the search engines:

1. Open all the search engines in the primary search tab.
2. Lexis Nexis:
    a. I type the group name in quotes (e.g. "Al-Rashidin Army") in the combined search area
    b. I select “All available dates” if the group existed before 2003. If the group is to be coded only for 2004-2007 then you can select the “Previous 10 years”
    c. I check “US & major world news” and “US & state legal cases” (just in case)

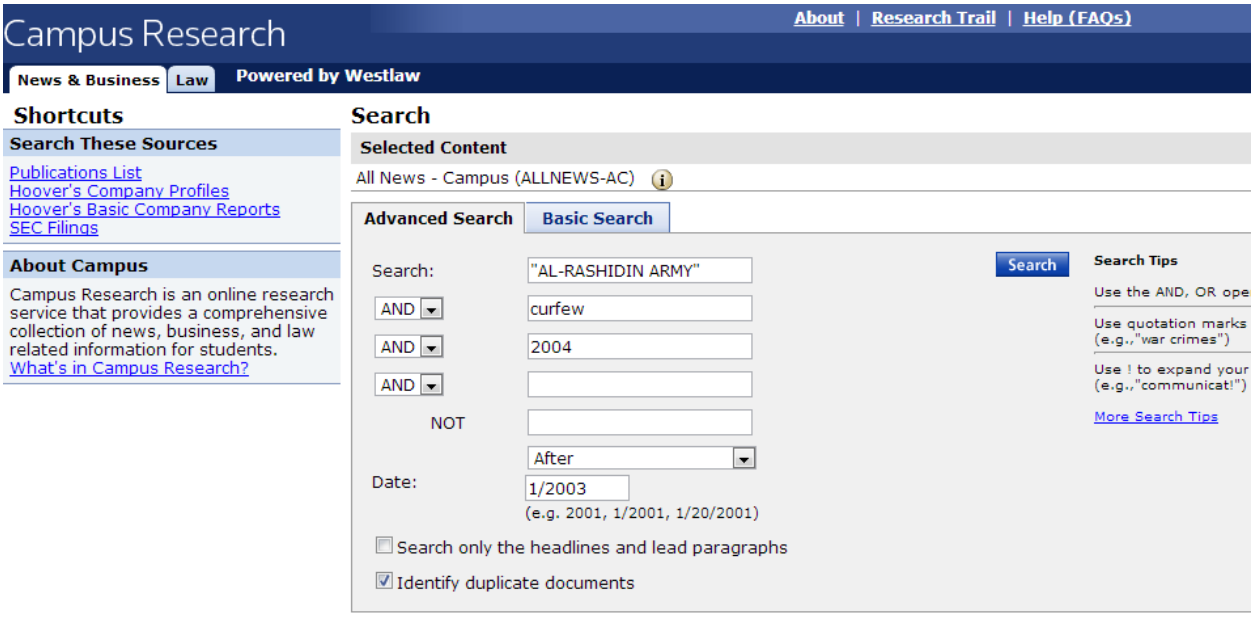




    d. If the results list is massive I then begin adding words related to the variables (see below) in the “search within results” or I go to the advanced search where I type the group name in quotes and a search term separated by a comma (e.g. "Al-Rashidin Army", curfew)



3. Westlaw:
    a. I type the group name in quotes in the first search line (e.g. "Al-Rashidin Army")
    b. I select “after” in the date section and then type the first year I am searching (e.g. if the group is being coded for 2002-2006 I would search for after 1/2002)
    c. I click the “Identify duplicate documents” so that the results list does not have numerous duplicate articles (though there still will be some)
    d. If the results list is massive I then click “back” and add words related to the variables in the second search line so that it searches for the group AND the search term (e.g. "Al-Rashidin Army" AND curfew)
    e. If the results are still massive or I found information for curfews in all the years except 2004, I would then add 2004 to the third search line for a more focused search (keeping the after 1/2003 in the dates searched)



4. Google, Yahoo
    a. I type the group name in quotes in each (e.g. "Al-Rashidin Army") and the variable I'm searching (e.g. "Al-Rashidin Army", curfew)
    b. I search through all the results in page 1 of Yahoo, and page 1 of Google. You'll see that some results may be on both Google and Yahoo, and if you looked at the source in Yahoo it turns purple in Google so you know you don't have to look at it again (same if you look in Google it will turn purple in Yahoo). Always search these search engines together so that you don't look at duplicates.
    c. There may be unlimited number of pages of results that come up with a search in Google/Yahoo. You will find that many websites (often after a few pages) are not relevant. You need only search until you start to find the websites are all irrelevant –you don't need to go through every page.

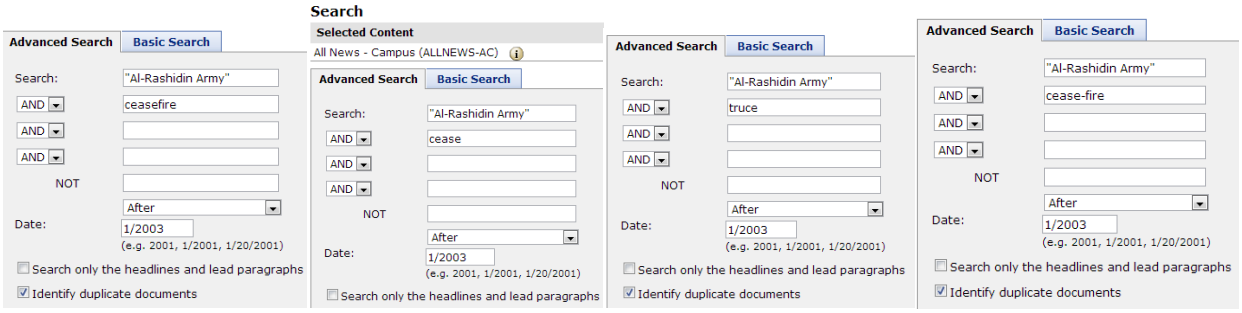
5. ProQuest:
    d. I enter the group name in quotes in the initial primary search tab and it pulls up the documents directly. Often times there are only a few documents in ProQuest related to the group.
    e. If there are many results you can go to the advanced search and enter the group name in quotes, a term for the variable you're searching, and the time period to search to narrow down the results list.

6. Additional search options:
    a. If it is not in the search document provided by BAAD, you can search the TOPs database: http://www.start.umd.edu/start/data_collections/tops/
    b. Global Security – Paramilitary Organizations: has group listed by region, but not all groups. Just those considered paramilitary organizations. http://www.globalsecurity.org/military/world/para/index.html
    c. South Asian Terrorism Portal –has a search function at the top of the page if you've got a group in south Asia. http://satp.org/
    d. Terrorism 101 –this site has limited information on few groups. See if your group is listed here. http://www.terrorism101.org/organizations/index.html
    e. The Investigative Project on Terrorism –this site has limited information on groups. See if your group is listed here. http://www.investigativeproject.org/profile/all/
    f. Prophet of Doom – Definitely biased, but may have some useful information if you can't find it elsewhere, list of groups on the right side of the screen. http://www.prophetofdoom.net/Islamic_Clubs_Abu_Nidal_Group.Islam
    g. Congressional Research Service Reports, you can search for your group in quotes and then add words related to variables you need. http://digital.library.unt.edu/govdocs/crs/

How to search for variables: Search the group as stated above and then add each of these terms individually to the search for the variable till you find information.

Ceasefire:

- I search for this variable with these words: “ceasefire”, “cease”, “truce”, “cease-fire”



Terrorist Financing: You’re looking for any information that indicates the group’s access for monetary funds is reduced due to a government action

- I search for this variable with these words: “financing”, “fund”, “assets”, “monetary”, “counterfeit”

Curfew:

- I search for this variable with these words: “curfew”, “lockdown”

Mass Arrest:

- I search for this variable with these words: “arrest”, “round up”, “custody”

Internment Camps:

- I search for this variable with these words: “internment”, “detention”

Checkpoint:

- I search for this variable with these words: “checkpoint”

Stop & Frisk:

- I search for this variable with these words: “frisk”, “pat down”, “interrogate” –looking to see if reference to an interrogation specifies anything activities prior to an interrogation

Torture:

- I search for this variable with these words: “torture”, “waterboarding”, “interrogate” or “interrogation” –looking to see if reference to an interrogation specifies anything activities involved in an interrogation

Target Hardening: Hard targets

- I search for this variable with these words: “target hardening”, “security”, “metal detector”, “roadblock”, “road block”, “blockade”, “airport”, “port”, “embassy”, “government”

Target Hardening: Soft targets –Do note that there is overlap in search terms to those above, so you wouldn’t have to search them again. You may find relevant info for this variable from the search above.

- I search for this variable with these words: “target hardening”, “security”, “metal detector”, “roadblock”, “road block”, “blockade”, “market”, “church”, “synagogue”, “mosque”

Deradicalization/Disengagement:

- I search for this variable with these words: “deradicalization”, “disengagement”

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