TACTICAL DECISION MAKING IN TERRORIST ORGANIZATIONS

A Dissertation

by

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ABSTRACT

From 1970 to 2019, approximately 71% of all terrorist attacks were classified as either a bombing or an armed assault. This pattern suggests that other tactical choices are made with less frequency and may need specific explanations. How are tactical decisions made within terrorist organizations? And what factors influence those decisions? While there is a robust political science literature on the causes and consequences of terrorism writ large, relatively little is known about how terrorist organizations approach decision-making across their tactical repertoires. In this dissertation, I will explore several potential factors that could influence how tactical decisions are made by terrorist organizations. First, I argue that terrorist organizations use specific tactics and expand the number of tactics employed in response to increasing uncertainty in the external operating environment, specifically in response to a state's use of repressive actions. I argue that, where possible, terrorist organizations will match the state's repression actions in subsequent attacks. Further, when a matching technique is no longer available, a terrorist organization will have no choice but to increase the number of tactical types it employs in an attempt to make its actions less predictable for the state. In the next two chapters, I approach the question of tactical decision-making from an organizational perspective, drawing upon literature on isomorphic pressures that organizations face. In the second empirical chapter, I develop an argument for terrorist professionalization based on the relationships between parent, affiliate, and allied organizations. The final empirical chapter pivots the focus to the relationship between parent, splinter, and rival organizations. Specifically, I argue that the existence of splinter and rival organizations are evidence of radical movements inside the profession, which tests the jurisdictional bounds of the profession. Developing and testing theories such as those suggested in this dissertation will bring the research community closer to capturing the reality of terrorist activities.

DEDICATION

In memory of the giants, whose shoulders I was fortunate to stand on:

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Clint Bondarenko (1934-2021)

Richard Atkinson (1935-2021)

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NOMENCLATURE

AQ	al Qaeda
AQAP	al Qaeda of the Arabian Pennisula
CINC	Composite Index of National Capability
CIRI	Cingranelli and Richards Human Rights dataset
EDTG	Extended Data on Terrorist Groups
GDPPC	Gross Domestic Product per capita
GTD	Global Terrorism Database
IED	Improvised Explosive Device
IMET	International Military Education and Training
IRA	Irish Republican Army
ISIL	Islamic State of Iraq and the Levant
ISIS	Islamic State of Iraq and Syria
MGAR	Militant Group Alliances and Relationships
OIRA	Official Irish Republican Army
OLS	Ordinary Least Squares
PIRA	Provisional Irish Republican Army
ROLE	Rebel Organization Leaders database
START	National Consortium for the Study of Terrorism and Responses to Terrorism
TVC	Time Varying Covariate
US	United States

VRA	Vehicle Ramming Attack

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1. INTRODUCTION

> "If you are not able to find an IED or a bullet, then single out the disbelieving American, Frenchman or any of their allies. Smash his head with a rock or slaughter him with a knife or run him over with your car or throw him down from a high place or choke him or poison him. [...] If you are unable to do so, then burn his home, car, or business. Or destroy his crops. [...] If you are unable to do so, then spit in his face."
>
> —ISIS SPOKESPERSON, 2014

1.1 Puzzle: What Happened to Vehicle Ramming Attacks?

The Bastille Day celebrations on July 14, 2016, in Nice, France drew crowds that swelled to the size of nearly 30,000 people, according to some estimates. Following the end of the celebration's evening firework display, a driver of a 20-ton rental truck plowed through the crowds and barriers for over one mile, striking and killing 86 people while injuring an additional 486 others. The attack only ended after the driver of the truck was shot and killed by police. In the days following the attack, the Islamic State claimed responsibility for its destruction.[1]

The Nice truck attack was followed by similar attacks using trucks. More generally, truck attacks are referred to as vehicle ramming attacks (VRAs). VRAs are the tactic wherein an attacker drives a vehicle into a target-rich environment, such as the crowd of pedestrians in Nice, France. Following the July 2016 VRA in France, there were two additional VRAs at Ohio State University in Columbus, Ohio[2] (November) and in Berlin, Germany[3] (December). Truck attacks continued into 2017 taking place in London, United Kingdom[4]; Stockholm, Sweden[5]; Barcelona, Spain[6];

[1] For news coverage of the event: BBCNews (2016*b*)
[2] Blau, Grinberg, and Prokupecz (2016)
[3] BBCNews (2016*a*)
[4] BBCNews (2019)
[5] Anderson and Sorensen (2017)
[6] Smith-Spark (2017)

Edmonton, Canada[7]; and New York City, New York.[8] And nearly as suddenly as truck attacks arrived on the scene, the tactic appears to have slipped out of favor. There were only two such truck attacks during 2018 in Danghara, Tajikistan[9] and London (Westminster), United Kingdom[10].

Cronin (2019) identifies twelve criteria that make new technologies more likely to become tools used in political violence, which she refers to as the "lethal empowerment theory." Technologies that are more likely to become tools of political violence are those that are: (1) accessible, (2) cheap, (3) simple to use, (4) transportable, (5) concealable, (6) effective, (7) "multi-use," (8) not cutting-edge, (9) bought off-the-shelf, (10) part of a cluster of other emerging technologies, (11) symbolically resonant, and (12) given to unexpected uses (Cronin, 2019). The criteria are additive, so a new technology need not meet all twelve criteria. However, the more criteria that a new technology meets, the more likely it is to be adopted for the use of politicla violence.

While Cronin (2019) does not specifically assess truck attacks using her theory, I provide an application of her theory to the tactic. The results of my assessment are available in Table 1.1. By many measures, the truck attacks appear to fall squarely within the confines of Cronin's (2019) "lethal empowerment theory." As I show in Table 1.1, ten of the twelve criteria from the theory apply to VRAs. Yet the tactic has failed to become commonplace across terrorist organizations as predicted by the theory. Why have VRAs not been adopted more broadly? Enders and Sandler (1993) would suggest that governments have implemented counter-strategies that disincentivize terrorist organizations from using the tactic, which would cause terrorist organizations to change tactics. One such counter-strategy for VRAs is the installation of concrete barriers around public markets and government buildings. But such barriers cannot protect every public gathering place and we still observe a lack of adoption for the tactic. The lack of adoption of VRAs by terrorist organizations suggests that forces beyond simple mimetic pressures to emulate other terrorist orga-

[7]Levin (2017)
[8]Guardian (2017)
[9]BBCNews (2018*a*)
[10]BBCNews (2018*b*)

nizations may play a factor in tactical decision making for terrorist organizations. How do terrorist organizations make their tactical decisions?

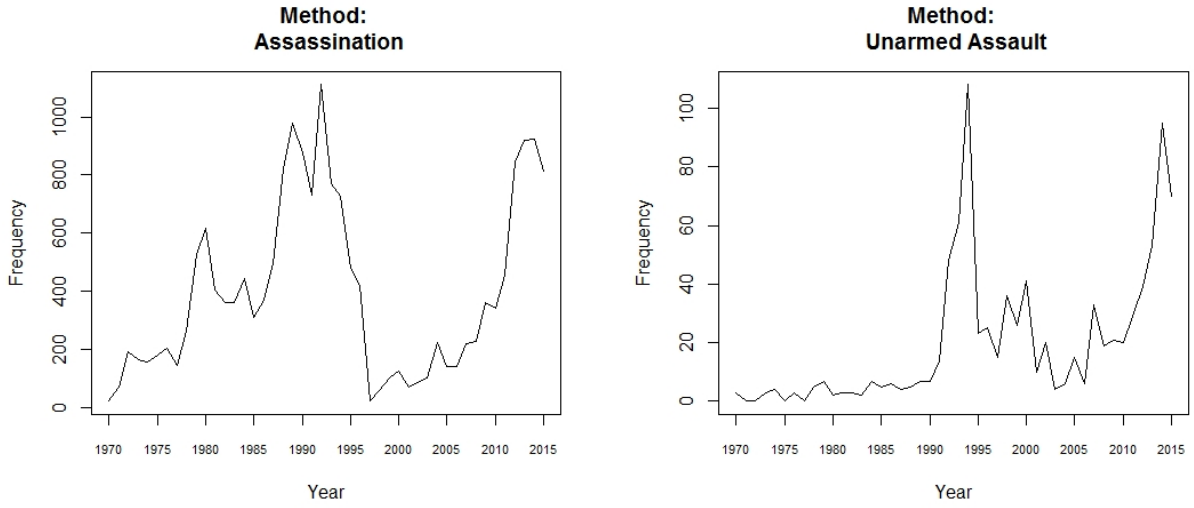
Table 1.1: Application: Cronin's (2019) Lethal Empowerment Theory to VRAs

	Criteria	**Applies to VRAs?**
1	Accessible	✓
2	Cheap	✓
3	Simple to use	✓
4	Transportable	✓
5	Concealable	
6	Effective	✓
7	"Multi-use"	✓
8	Not cutting-edge	✓
9	Bought-off-the-shelf	✓
10	Part of a cluster of other emerging technology	
11	Symbolically resonant	✓
12	Given to unexpected uses	✓

Vehicle ramming attacks are not the only terrorist tactic that appears to rapidly arise and nearly as suddenly retreat from favor. Figure 1.1 shows additional evidence of other terrorist tactics that follow the same pattern described for VRAs. The left panel shows the annual number of assassinations from 1970 to 2016. The right panel shows the annual number of unarmed assaults over the same time period. Both panels show a pattern similar to that of the vehicle ramming attacks. After a period of rapid adoption of the tactic, there is a subsequent sudden retreat. For example,

assassinations show a rapid adoption of the tactic from nearly 1985 to 1993. But by 1995, the tactic enters a period of dormancy. But by the early 2000s, the tactic regains popularity. Unarmed assaults follow a similar pattern. After a rapid adoption of the tactic from 1990 to 1995, the terrorists appear to suddenly retreat from the tactic. There is a similar rapid adoption of unarmed assaults beginning around 2010.

Figure 1.1: Additional Evidence of the Problem: Assassinations (left) and Unarmed Assaults (right)



The longer time series shown in Figure 1.1 offer an additional insight: tactics that lose favor over a period of time appear to re-emerge later. The data in the extended time series suggest that terrorist organizations are willing to recycle previously utilized tactics after periods of infrequent use. Again, while Enders and Sandler (1993) provide one explanation for retreat from a tactic, their explanation does not account for why we would expect to see a return to the tactic years later. The identified pattern leads me to further question why terrorist organizations rapidly adopt and retreat from particular tactics. And further, as suggested by the longer time series, I question why some terrorist tactics re-emerge as popular choices after periods of relative little use.

How are tactical decisions made by terrorist organizations? And what factors influence the decision-making processes? While researchers have studied individual terrorist tactics, far less attention has focused on how terrorist organizations decide across the available options. These questions underline the three chapters I explore in this manuscript. Understanding how terrorist organizations approach decision making, particularly tactical decisions, drives the academic discussion forward toward thinking about the tactical repertoires of terrorist organizations instead of singular tactics. By expanding to think about tactical repertoires, this research agenda aligns more closely with the daily activities of terrorist organizations. Further, my arguments include how terrorist organizations relate to one another as well as how terrorist organizations relate to the actions taken by governments. Both perspectives provide greater context to understand the complexity of how organizations approach tactical decision making, which I anticipate will be illuminating for both academics and policymakers. I argue that understanding how terrorist organizations approach tactical decision making may provide insight into how to better counter their strategies.

1.2 Conceptualizing Terrorism, Terrorist Organizations, and Tactics

Before I proceed, I want to discuss three important concepts that underpin my dissertation: terrorism, terrorist organization, and terrorist tactics. Each of these terms can be conceptualized in a variety of manners, depending on the author and audience. I will review some of the prevailing trends in the literature for each concept before providing an explanation of how each concept will be used in this dissertation.

Phillips (2015) provides a framework for evaluating definitions of terrorist organizations, which I discuss further below. However, the framework may be useful when thinking about defining each of the concepts under consideration. He argues that definitions can be "inclusive" or "exclusive." Inclusive definitions tend to err on the side of considering a greater number of cases, whereas exclusive definitions limit the sample based on theoretical grounds (Phillips, 2015). By definition, inclusive definitions subsume exclusive definitions. He argues that there are many benefits of

starting with an inclusive definition, with the primary benefit being that inclusive definitions serve as a baseline sample for theory (Phillips, 2015). From a baseline, scholars refine the sample to test increasingly specific subgroups. In practice, research may not always follow in a linear fashion from baseline to refined sample. However, the benefit to beginning with a baseline sample remains: scholars can later work to refine the concepts and theories to increase specificity. I will continue to discuss the benefits of using an inclusive definition throughout the discussion of my concepts. In what follows, I will evaluate the concepts through the lens of "inclusivity" versus "exclusivity."

1.2.1 Terrorism

The perennial question in any study of terrorism is how the concept of terrorism is defined. The first chapter of many notable books on the subject is dedicated to this very question (See for example: Schmid and Jongman, 2005; Richardson, 2007; Smelser, 2009; Schmid, 2011; Hoffman, 2018; Chenoweth and Moore, 2018). Identifying a common definition for terrorism has vexed both academic and policy communities for decades. Laqueur (1977*b*) argued that it is impossible to identify a common definition for the term as it has taken many forms in a variety of contexts. Rather, someone could only identify terrorism upon seeing it. Tilly (2004, 11-12) similarly argues "Terrorists range across a wide variety spectrum of organizations, circumstances, and beliefs. Terrorism is not a single causally coherent phenomenon. No social scientist can speak reasonably as though it were." Asal et al. (2012, 475) state that the "key lesson" from scholarship that attempts to identify a singular definition for terrorism is "...that we will not *ever* find a single, correct definition" (emphasis added). All of these authors go on to argue that, instead, scholars must identify a useful definition.

In an effort to generate discussion of a useful definition for terrorism, Merari (1993, 215) identifies three "common elements" in definitions of terrorism: "...(1) the use of violence; (2) political objectives and, (3) the intention of sowing fear in a target population." Although, he continues on to acknowledge that these three common elements alone do not yield a useful definition. Crenshaw

(1983, 2-3) provides an example of how all three common elements proposed by Merari (1993) can be incorporated into a what she refers to as a "basic definition":

> [Terrorism is] ...the systematic use of unorthodox violence by small conspiratorial groups with the purpose of manipulating political attitudes rather than physically defeating the enemy. The intent of terrorist violence is psychological and symbolic, not material. Terrorism is premediated and purposeful violence, employed in a struggle for political power. As Harold Laswell defined it: 'Terrorists are participants in the political process who strive for political results by arousing acute anxieties.'

In an effort to further identify the elements necessary for a definition of terrorism, Schmid and Jongman (2005) expand and test a list of common elements to twenty-two based on the elements of 109 definitions of terrorism. The authors ask experts to identify the elements that are necessary to develop a definition of terrorism. Based on frequency of response, the experts identified the top five elements as: (1) violence, fear; (2) political; (3) fear, terror emphasized; (4) threat and, (5) psychological effects and anticipated reactions (Schmid and Jongman, 2005, 5). All five of these elements are present in the Crenshaw (1983) definition provided above. Six years later, Schmid (2011) revisited the count of unique definitions for terrorism dating back as far as 1794. He identified 262 unique definitions for terrorism. Ultimately, Schmid and Jongman (2005, 28) produce the following definition of terrorism:

> Terrorism is an anxiety-inspiring method of repeated violent action, employed by (semi-) clandestine individual, group, or state actors, for idiosyncratic, criminal, or political reasons, whereby—in contrast to assassination—the direct targets of violence are not the main targets. The immediate human victims of violence are generally chosen randomly (targets of opportunity) or selectively (representative or symbolic targets) from a target population, and serve as message generators. Threat—and violence—based communication processes between terrorist (organization), (imperiled) victims, and main target (audience(s)), turning it into a target of terror, a target of demands, or a target of attention, depending on whether intimidation, coercion, or propaganda is primarily sought.

The definition provided above includes sixteen of the twenty-two identified common elements. While the definition is thorough, it is not parsimonious. And Schmid and Jongman (2005) ac-

knowledge that some scholars will critique the length and detail of the definition, while others will make adjustments for their own research purposes.

For the purposes of working toward my definition of terrorism, I propose some changes to the Schmid and Jongman (2005) definition. First, the authors require that terrorism be a "repeated violent action." However, some terrorist attacks are perpetrated by individuals or organizations that attack one time. Blomberg, Engel, and Sawyer (2010) identify that many terrorist attacks are undertaken by "one-hit-wonders." To allow for the inclusion of such events, I relax the need for terrorism to be a repeated action. Second, the authors allow for terrorism by state actors. The use of terrorism by state actors aligns closely with the original concept of terrorism. The term terrorism was first used to describe actions taken by the French government during the French Revolutionary War (Tilly, 2004; Hoffman, 2018). For this dissertation, I specifically exclude cases of terrorism by state actors because I am interested in explaining how non-state actors make tactical choices in response to actions taken by the state (See Chapter 2). While I exclude state use of terrorism from my scope, the topic remains of importance to the academic and policy communities. Third, I conceptualize the use of terrorism as violent action for political, economic, religious, or social reasons. Thereby, I exclude individuals or organizations that use idiosyncratic and criminal reasons. Research on the crime-terrorism nexus provides insights into why a criminal organization chooses to use terrorism and why insurgent organizations choose crime (See for example: Makarenko, 2004; Makarenko and Mesquita, 2014; Phillips, 2018; Asal, Rethemeyer, and Schoon, 2019). However, I argue that the dynamics associated with tactical decision making in criminal organizations may be different from the theory that I propose in this dissertation.

There is one portion of the Schmid and Jongman (2005) definition that I keep intact for my conceptualization of terrorism. The authors allow for the use of discriminate and indiscriminate violence. Fortna (2015) specifically excludes the use of discriminate violence from her definition of terrorism, which she studies in the context of civil war. Instead, she argues that terrorism is the use of indiscriminate violence against civilians. There are two reasons provided for exclud-

ing discriminate violence. First, Fortna (2015) argues that narrowing the consideration to only the indiscriminate use of violence draws the focus back to the random and outrageous nature of terrorism. While the author is correct that discriminate violence is not random and may be less outrageous from a targeting perspective, she fails to acknowledge that discriminate violence can still be random and outrageous from the perspective of the timing of the attack, tactic, or technique. As I will discuss with the aid of Figure 1.3 below, understanding the planning process and impact associated with an attack is quite complex. Target selection is but one element that defines terrorist activity.

The second reason that Fortna (2015) argues that discriminate violence should be removed from consideration is that the target does not hold symbolic value, which is a tenant of many definitions of terrorism. In this case, the author implicitly assumes that the target of discriminate violence will not hold symbolic value to a larger audience. However, a discriminatory act of violence against a leader or high-ranking official could carry symbolic value to a larger audience. Take for example, the 2018 attempted assassination of Venezuelan President Nicolas Maduro by non-state actors. In an analysis of the event, Macdonald (2018) notes that the attack "shocked" many observers. The reason for the shock was two-fold: (1) the use of a drone in an assassination [technique and tactic] and (2) the targeting of a national leader. I argue that such a case should be considered terrorism, thereby employing a more inclusive definition. Out of fairness to Fortna (2015), the context for her study of terrorism is civil war. By narrowing the scope of the study to civil war, the argument for removing acts of discriminatory violence may be appropriate.

In addition to the scoping elements I discussed from Schmid and Jongman's (2005), for the purposes of this dissertation, my definition of terrorism aligns with the definition provided by Enders, Sandler, and Gaibulloev (2011) with some adjustments. Enders, Sandler, and Gaibulloev (2011, 321) define terrorism as "...the premeditated use or threat to use violence by individuals or subnational groups against noncombatants in order to obtain a political or social objective through intimidation of a large audience beyond that of the immediate victims." As discussed above, I ex-

pand the objectives to include political, economic, religious, and social objectives in my definition of terrorism. Further, the definition provided by Enders, Sandler, and Gaibulloev (2011) allows for state-sponsored terrorism. However, for reasons discussed below, I exclude state-sponsored terrorism from my definition and my subsequent analysis.[11]

1.2.2 Terrorist Organizations

Despite the extensive academic and policy dialogue on the definition of terrorism, Phillips (2015) notes that defining the boundaries of a terrorist organization or group receives little academic attention. Within the extant literature, Phillips (2019) notes that formal, well-established organizations receive the most scholarly attention. He partially attributes the attention to the lethality associated with formal, well-established terrorist organizations (Alakoc, 2017; Phillips, 2017). But defining the boundaries of terrorist organizations based on formal, well-established organizations could generate threats to inference by not full capturing the variation in the boundaries of less-established organizations. The study of terrorist organizations continues to grow, which should lead to richer discussions on questions of what constitutes a terrorist organization and how to define terrorism.[12]

Before continuing on to define a terrorist organization, I want to explore some of the existing work on how groups and organizations are broadly defined. Olson (2009, 8), for example, defines a group as "...a number of individuals with a common interest." The key element from the definition is a "common interest," which bounds otherwise random individuals to one another. The author continues on to argue that while some people might suggest that any random selection of individuals, taken together, could constitute a group, that the lack common interest between these randomly selected individuals would prevent them from taking collective action (Olson, 2009).

[11] See Appendix A for a side-by-side comparison of the definitional elements across Schmid and Jongman (2005), Enders, Sandler, and Gaibulloev (2011), and Bondarenko (2022).

[12] For example, a recent special edition of *Defence and Peace Economics* was devoted to questions related to terrorist organizations. The special edition featured works by Gaibulloev and Sandler (2021*b*); Tschantret, Yang, and Nam (2021); Hou (2021); Klotzbücher, Krieger, and Meierrieks (2021); Piazza (2021); Gaibulloev and Sandler (2021*a*); and Conrad et al. (2021).

In the context of terrorist organizations, the common interest may be expressed through the organization's strategies and goals. I discuss the strategies and goals of terrorist organizations later. Wilson (1989) urges scholars not to confuse organizations with organizational structures. As a way of thinking about the difference, he explains that organizations have little to do with hierarchy or even organizational charts. Instead, he writes "An organization, in the words of Chester Barnard, is a 'system of consciously coordinated activities or forces of two or more persons"' (Barnard, 1968 in Wilson, 1989, 24). This definition of an organization requires more than a common interest and moves us toward the notion that organizations are designed to coordinate activities.

In keeping with my inclusive definition for terrorism, I also use an inclusive definition for terrorist organizations. I adopt the inclusive definition put forward by Phillips (2015, 237), who defines a terrorist organization as "a subnational political organization[13] that uses terrorism." This definition is in alignment with other scholars, who define a terrorist organization as "...a subnational collective whose members engage in violence or its threat in order to secure a political goal by intimidating an audience" (Hou, Gaibulloev, and Sandler, 2020; Gaibulloev and Sandler, 2019 in Gaibulloev and Sandler, 2021*b*, 237). Based on these definitions, my concept for a terrorist organization aligns closely with my definition of terrorism.

It is important to note that I do not impose any requirements for terrorist organizations to maintain any specific organizational structure in my definition. Keeping the definition free of language regarding organizational structures aligns with the distinction between organizations and organizational structures discussed earlier. Although, the organizational structure may ultimately

[13]As used in this context, subnational means below the state-level. Used in this manner, Phillips (2015) definition is that terrorist organizations are political organizations that exist below the level of a state. One potential point of confusion could be between distinguishing between terrorist organizations, which are subnational political actors, and transnational terrorist organizations. The point of distinction is not between subnational and transnational organizations. Transnational organizations are still below the state. The point of distinction is between transnational and domestic organizations. When discussing transnational terrorist organizations, scholars are focused on terrorist organizations that maintain a home base in one country, but execute attacks outside of the home base country. A transnational terrorist organization may execute attacks within the home base country, giving it a second title as a domestic terrorist organization. Distinguishing between transnational and domestic terrorist organizations happens after recognizing the organizations as subnational organizations.

play a role in theory-building, I do not include it in determining the sample as I continue to use inclusive definitions to provide as full of a test of the theory as possible.

By using an inclusive definition of terrorist organization, I assume that organizations can cease the use of terrorism and thus cease being terrorist organizations. This assumption is supported by other scholars who define terrorist organizations in a similar fashion (Asal (2012) in Asal et al. (2012)). My definition for a terrorist organization will also capture organizations that may engage in activities outside of terrorism. Moghadam, Berger, and Beliakova (2014) acknowledge that organizations can be classified in multiple ways (e.g., terrorist and insurgent), based on the ability to hold territory, for example. Therefore, my sample extends by organizations that use "pure terrorism" strategies, meaning those that are incapable of mounting larger insurgency movements (Metz, 2007; Byman, 2008). By engaging with a broader definition, I am able to test my theory on a baseline sample.

A frequently raised issue when defining a terrorist organization is the question of territorial control (Merari, 1993; Sánchez-Cuenca and De la Calle, 2009; De la Calle and Sánchez-Cuenca, 2011; Hoffman, 2018). While I do not use territorial control to determine if an organization is a terrorist organization, the discussion from the literature remains useful. De la Calle and Sánchez-Cuenca (2011, 453) argue that "The core of terrorism is coercive violence carried out by those insurgent groups not holding territorial control within the state's borders." The authors go on to argue that insurgent groups that hold territory are guerrilla organizations. The determination of terrorist versus guerrilla is made along two dimensions: (1) type of violence and (2) control of territory. De la Calle and Sánchez-Cuenca (2011) break type of violence into two categories: (1) coercive violence and (2) military power. The distinction between these categories is particularly useful as we pivot into a discussion of tactics. The control of territory is also split into two categories: (1) underground and (2) holding territory (De la Calle and Sánchez-Cuenca, 2011). Thus, getting back to the distinction between terrorists and guerrillas, the authors posit that terrorists are underground actors or organizations that use coercive violence. And while actors or organizations

may continue to use coercive violence after controlling territory, the actors would then be considered guerrillas that choose to operate in a clandestine manner inside state-controlled territory (De la Calle and Sánchez-Cuenca, 2011).

While Hoffman (2018) also distinguishes terrorists from guerrillas and insurgents based on the terrorists lack of territorial control (among other elements), he cautions that overlap exists between the categories. Critiques of the territorial control definitional distinction raise concerns with identifying organizations based on a structural weakness (Asal (2012) in Asal et al. (2012)). The structural weakness, in this case, is an inability to control territory. The argument that a terrorist organization cannot hold territory is predicated on the basis of an extreme power asymmetry between the state and the the organization (Sánchez-Cuenca and De la Calle, 2009). In both publications, Sánchez-Cuenca and De la Calle (2009) and De la Calle and Sánchez-Cuenca (2011) refer to terrorist organizations as "underground." The authors adopt the language from McCormick (2003), who defines underground to mean "covert" or "clandestine." McCormick (2003) adopts his definition of underground from Molnar, Tinker, and LeNoir (1966).

Tracing the language back to the originating document unveils some slippage from how the authors discussed the relationship between underground organizations and other parts of insurgency movements. While Molnar, Tinker, and LeNoir (1966) define an underground organization in a manner consistent with McCormick (2003), the authors go on to explain that the underground organization is a part of an insurgency movement. In fact, it is the first phase of an insurgency, as conceptualized by Molnar, Tinker, and LeNoir (1966). As an underground organization, the actors are working "..to create a structure strong enough to support a specialized organization for armed activity" (Molnar, Tinker, and LeNoir, 1966, ix-x).

Once an insurgency arrives at the militarization phase, the guerrilla organization emerges. During this phase, the guerrilla organization will move through three stages Molnar, Tinker, and LeNoir (1966). The first stage is harassment of the state's military forces. The second stage involves drawing the state's military forces into armed skirmishes over territorial control. And the

final stage is territorial control. The final stage in the militarization phase aligns with the theory put forward by Sánchez-Cuenca and De la Calle (2009) and De la Calle and Sánchez-Cuenca (2011). However, Molnar, Tinker, and LeNoir (1966) do not argue that the terrorist organization ceases to exist, nor do they sever the tie between the different subgroups. Instead, they acknowledge that "During all of these stages the underground acts as the supply arm of the guerrillas, in addition to carrying out propaganda, terrorist, sabotage, and other subversive activities" (Molnar, Tinker, and LeNoir, 1966, xi). Significantly, the authors do not ascribe to the theory that the taking territory moves an organization from underground to guerrilla. Instead, the original concept of underground organizations suggests that those organizations will continue to exist, even when a portion of the organization is able to capture territory. The tie between underground organizations and guerrilla counterparts may not be broken based on territorial control alone.

The idea the underground/terrorist organizations and guerrilla organizations are inextricably linked is captured by Laqueur (1977*a*, x), who writes "What is now commonly called 'urban guerrilla' warfare is, of course, terrorism in a new dress." If terrorist organizations continue to support guerrilla organizations in insurgency movements as suggested above, my decision to use inclusive definition of terrorist organizations is viable. Further, in the originating discussion of underground activities, Molnar, Tinker, and LeNoir (1966) do not preclude the use of terrorism by guerrilla organizations. Therefore, while discussions of territorial control to differentiate between terrorist and guerrilla organizations may provide theoretical leverage for other scholars, it is not necessary for my conception of a terrorist organization. A future avenue for research could include differentiating between the two organizational types in order to further refine and test the theory I present.

I have one final note on my use of the term terrorist organizations. In my survey of the extant literature, I noticed that scholars appear to use the terms "terrorist organization" and "terrorist group" interchangeably. Olson (2009) similarly uses the terms group and organization interchangeably[14]

[14]Note for future consideration: Is there an identifiable difference between an organization and a group? If so, is

in his seminal work on the theory of groups and public goods. In this dissertation, I will use the term "terrorist organization," unless I am citing published work that refers to the term terrorist group.

1.2.3 Tactics

Now that I have defined how terrorism and terrorist organizations will be used in my dissertation, we can turn to a discussion of tactics. In reviewing the existing scholarly work on tactics, I found substantial variation across the definitions in published work. Roughly speaking, the variation can be split into three categories. Some scholars use the term "tactic" when the actual focus of the study is related to targets. To borrow the language of Gutiérrez-Sanín and Wood (2017), this group of scholars claim to answer the "what" question, but instead focus on the "against whom" question. A second group of scholars refer to terrorism itself as a tactic. De la Calle and Sánchez-Cuenca (2011) refer to the second group as those that study the "action-sense" of terrorism. The flip side of the "action-sense" is the "actor-sense" of terrorism, in which the authors define terrorism as a type of insurgency. Scholarly work falling into the "terrorism is a tactic" category include, but are not limited to: Tilly (2004); Rasler and Thompson (2009); Findley and Young (2012*b*); Bueno de Mesquita (2013) Polo and Gleditsch (2016); Gaibulloev and Sandler (2022). Many, although not all, scholars in this category place terrorism along the scale of non-violent to violent actions that are available to nonstate actors that are at odds with the state. From this perspective, terrorism is part of a broader discussion surrounding contentious politics. The third category of scholars define tactics as the specific method of attack in terrorist activity. Scholarly work falling into the third category include, but are not limited to: Blomberg, Gaibulloev, and Sandler (2011);

there an identifiable difference between a terrorist organization and a terrorist group? Huff and Kertzer (2018) test for a difference between a terrorist organization and terrorist group in their survey experiment regarding how the public defines terrorism. The authors find that the public is more likely to define an attack as terrorism when it is executed by an organization or group (Huff and Kertzer, 2018). However, the authors do not define the differences between the language selected. The professionalization literature may provide leverage along those lines. For example, in this dissertation I am examining highly structured collections of individuals that engage in terrorism. We could call these organizations. Whereas many of the "others" in the dissertation may qualify as groups. Perhaps the graduation from a group to an organization is a part of the professionalization process.

Horowitz, Perkoski, and Potter (2018); De la Calle and Sánchez-Cuenca (2015); Boyle (2020); Nanes and Bachus (2021). For the purposes of this dissertation, I fall into the third category. My focus is specifically on the method by which terrorist organizations execute their attacks.

By tactics, I specifically refer to the method by which the attack is executed. Some of the early work on terrorist tactics provides useful distinctions relative to other violent tactical options. For example, Merari (1993) examines tactics across three modes of violent struggle: (1) conventional war, (2) guerrilla, and (3) terrorism. Tactics, in the conventional war context, are "usually joint operations involving several military branches" (Merari, 1993, 227). In contrast, guerrilla tactics are "commando style," which the author never clearly defines. However, some examples provided included occupation of towns, attacks on police stations and military convoys, and control over territorial areas (Merari, 1993). More recently and in a similar manner, De la Calle and Sánchez-Cuenca (2011) provide the following examples as guerrilla tactics: raids, small-scale battles, seizing small villages for discrete periods of time, road controls, and attacks against facilities. Finally, Merari (1993, 227) defines terrorist tactics as "specialized" and offers some examples, to include kidnappings, assassinations, car-bombing, hijacking, and barricade-hostage. The list of terrorist tactics provided by De la Calle and Sánchez-Cuenca (2011) is strikingly similar and includes kidnappings, improvised explosive devices (IEDs), suicide bombing, and hijacking. The authors are agnostic about the tactic of assassination as being either guerrilla or terrorist (De la Calle and Sánchez-Cuenca, 2011).

Before continuing the discussion of terrorist tactics, I want to take a brief aside to discuss how I differentiate between tactics and techniques/weapons. McCormick (2003) argues that when it comes to planning and executing attacks, terrorist organizations have three primary, interrelated decisions to make: (1) target, (2) tactic, and (3) timing. I agree with the three categories and argue that a fourth category of technique/weapon should be added. I argue that tactics are the method or form of violence, while the technique/weapon is the manner by which the tactic is carried out. To borrow the language of Gutiérrez-Sanín and Wood (2017) a tactic answers the question

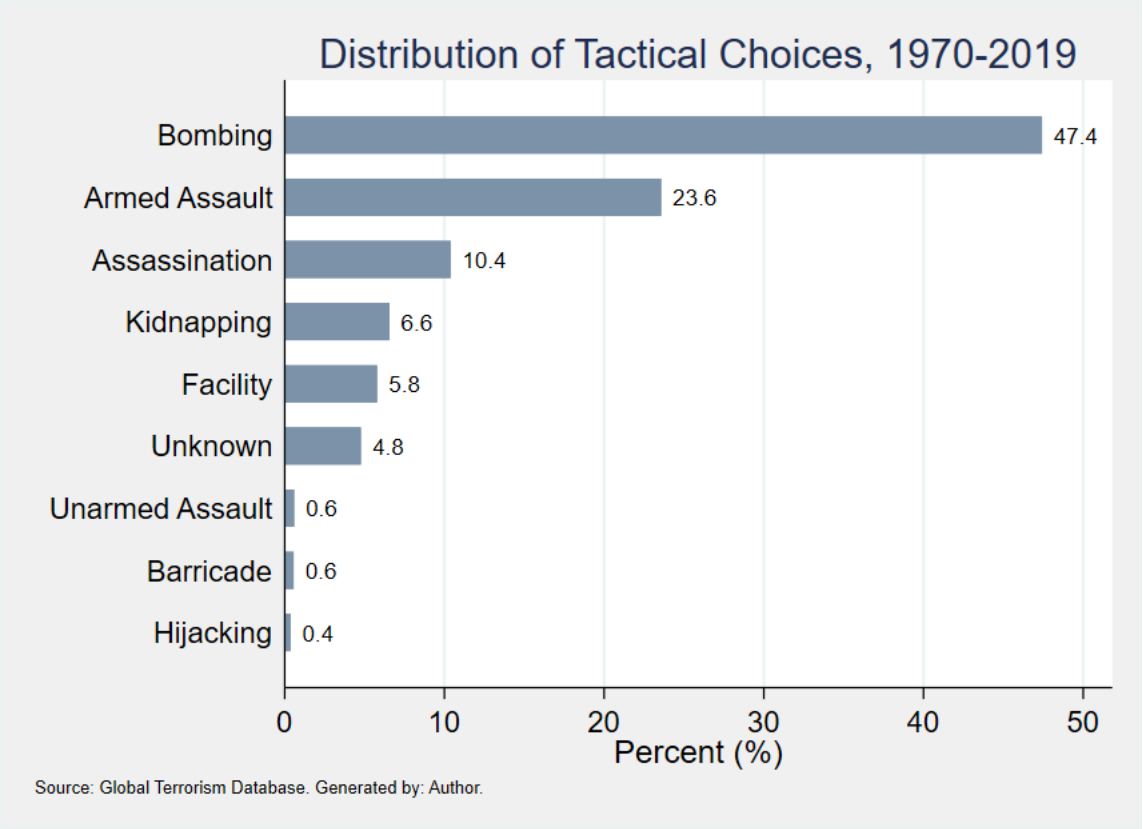
about "what" the attack will be and the technique/weapons answers the question "how" attack will happen. Returning to the above list of terrorist tactics provided by De la Calle and Sánchez-Cuenca (2011), I would argue that IEDs are the technique/weapon and the associated tactic is a bombing. I will discuss how each of these four decisions link together in the next section.

Returning to our attention to the topic of terrorist tactics, Figure 1.2 reflects the distribution of commonly identified terrorist tactics that terrorist organizations selected from 1970-2019. I draw the data from the Global Terrorism Database (GTD), which is an event-level data set that tracks terrorist activities from 1970 to 2019 (LaFree and Dugan, 2007).[15] As GTD captures data at the event-level for nearly 50 years, there are over 200,000 observations in the dataset. I discuss the GTD further in later chapters. One striking feature about the distribution is that 71% of all attacks are either bombings or armed assaults. The popularity of bombings and armed assaults is an often-noted finding when analyzing the distribution. LaFree, Dugan, and Miller (2014) explain that the pattern shown in Figure 1.2 is the result of the ease of bombings and armed assaults relative to the other tactical choices.

Not all scholars agree on the full range of terrorist tactics shown in Figure 1.2. Determining which methods of violence qualify as terrorism has generated some debate in the literature. Questions of which violent tactics are considered terrorist tactics often occur in conjunction with the earlier discussion of the use of discriminate and indiscriminate violence. As I discussed above, some scholars, such as Fortna (2015), exclude acts of discriminate violence from their definitions of terrorism. Excluding acts of discriminate violence from definitions of terrorism has implications for the types of violence that those scholars consider terrorist tactics. Taking the argument for the removal of discriminate violence a step further, Fortna, Lotito, and Rubin (2022) theoretically and empirically differentiate between different types of terrorist tactics based on levels of discrimination. The authors also make use of the GTD data, which aids our comparison to Figure 1.2. First,

[15] GTD allows for up to three tactical choices to be recorded for each event. In Figure 1.2, I focus exclusively on the primary tactic used. In approximately 97% of the events, only one tactic is recorded.

Figure 1.2: Distribution of Tactical Choices (1970-2019)



the authors develop a "Less Restrictive Measure of Indiscriminate Violence," which includes the categories hijacking, kidnapping, barricade, bombing, armed assault, and unknown. The excluded categories are assassination, facility, and unarmed assault (Fortna, Lotito, and Rubin, 2022). The authors further refine the sample based on target, but that discussion is beyond the scope of tactics. Next, the authors generate a "More Restrictive Measure of Indiscriminate Violence" and include only two tactical choices, which are bombing and armed assault (Fortna, Lotito, and Rubin, 2022). As I am using a more inclusive definition of terrorism, the measures produced by Fortna, Lotito, and Rubin (2022) will not be used in this dissertation. However, the measures may be useful as future work continues to refine the sample and theory that I present here.

1.2.4 A Final Word on the Main Concepts & Scope

I recognize that some scholars may disagree with how I define the main concepts in my dissertation, which determines the scope of the project. The variation in definitions for the main concepts naturally leads to this type of disagreement. I adopt an inclusive definition and err on the side of including organizations that use terrorism, regardless if those organizations can be classified as other types of actors (e.g., rebel organizations or other armed non-state actors). By using an inclusive definition, I provide a baseline sample to test my theory. As Phillips (2015) explains, the benefit of using a baseline sample that stems from an inclusive definition is that the sample can be further refined over time. Thus, future avenues for research could include limiting the sample of organizations under consideration or making adjustments to the types of tactics that are included in the analysis. I argue that there is tremendous value in analyzing the data from multiple definitional perspectives. And I would encourage research that continues to refine the work done in this dissertation to identify further scope conditions and sub-samples that test the theory in novel ways.

Defining terrorism, terrorist organizations, and terrorist tactics is not simply important from a theoretical standpoint, but from a methodological one as well. How we define each concept has consequences for the manner in which data on the subject are collected and ultimately analyzed (McCann, 2020). I provide a discussion of the data issues that arise from existing datasets in the concluding chapter.

1.3 Tactics and Tactical Repertoires: What We Know

In discussing how I conceptualize terrorist tactics, I introduced some of the mostly commonly identified tactical choices. Figure 1.2 reflects the variation in the tactical choice set. What accounts for the variation across the tactics? Questions relating to variation in tactical choice sets are by no means new territory for scholars. Classic accounts of why we observe variation in tactical choice sets can be traced to Tilly (2003), Tilly and Tarrow (2015), and Gurr (1971). Tilly (2003, 53), for example, asked "[...] what explains the variation in the form, salience, and coordination of the

outright damage to persons and objects?"

Despite these earlier works, we still lack a comprehensive understanding of how terrorist organizations make selections within their tactical choice set and how adjustments are made to those choice sets. I contend that there are two primary reasons for the existing gap in the literature: (1) authors have been chasing headlines and (2) data availability and reliability concerns. First, just as Diehl (2002) forewarns, I am of the opinion that researchers have allowed the shock and awe from the public over the use of individual tactics to drive their research agendas. Chasing the headlines in this manner might explain the explosion of niche research agendas that focus on individual tactics, such as suicide bombings,[16] hijackings,[17] hostage-taking incidents,[18] and weapons of mass destruction.[19] The benefit of studying tactics individually is that it allows scholars to theorize deeply and test rigorously the dynamics surrounding specific tactical choices. However, by focusing on a single tactic at a time, these research agendas fail to systematically test the relative influence of alternative tactical choices. And further, questions related to how terrorist organizations make decisions between the types of tactics largely is ignored (Horowitz, Perkoski, and Potter, 2018).

The second reason for the existing gap in the literature is the concern surrounding data availability and reliability. In order to understand how decisions are made within organizations, we need to understand the internal and external factors that push and pull the preferences of the actors making the decisions. In many cases, the internal factors of terrorist organizations are not directly observable. In large part, the inability to directly observe terrorist organizations is due to the covert nature of terrorist organizations. While some scholars offer anecdotal evidence of internal debates of various terrorist organizations regarding potentially expanding tactical choice sets (See for example: Shapiro, 2013), we do not have systemic observational data on each organization's

[16]Pape (2003); Bloom (2005); Pape (2006); Horowitz (2010); Soules (2022)

[17]Cauley and Im (1988); Enders and Sandler (1993); Wilson (2000); Dugan, LaFree, and Piquero (2005)

[18]Sandler and Scott (1987); Wilson (2000); Brandt and Sandler (2009); Lee (2013); Abrahms and Gottfried (2016)

[19]Gurr and Cole (2002); Blum, Asal, and Wilkenfeld (2005); Jenkins (2006); Ellis (2014); Binder and Ackerman (2021)

strategy/goals, resources, training, and the level of leadership control in decision-making. I return to the discussion of collecting organizational-level data in greater detail in the concluding chapter.

External factors that may influence decision making, on the other hand, include observable measures, such as the other actors with which a terrorist organization may interact. In this case, the other actors include the state, other terrorist organizations, and the general public more broadly. And because we are able to observe the actions of these actors, we obtain insights into the condition of the external operating environment. We are thus able to consider the factors that shape the external environment to which terrorist organizations are responding. By bringing the focus of how the external environment conditions the responses of terrorist organizations, we are offered an opportunity to explore how these organizations make decisions.

While the field is less saturated by research regarding how terrorist organizations select across tactics relative to research on individual tactics, there are two notable contributions that I wish to highlight. Both scholarly contributions consider substitution effects between tactical types and the tactical repertoire more generally. First, it may be the case that tactical choices serve as substitutes for one another, particularly when government intervention prevents the use of one tactic (Enders and Sandler, 1993). For example, when governments began installing metal detectors in airports, it became more difficult for terrorist organizations to hijack airplanes. Thus, terrorist organizations shifted their tactics to similar, but lower cost tactics, such as kidnappings and barricade incidents (Enders and Sandler, 1993). While tactics may be substitutes for one another, this model still assumes that all options are effectively "on-the-table" when it comes time to make decisions, which may be problematic as we will see in Chapter 2. Further, Enders and Sandler (1993) test the effects of mid-level government interventions, such as installing metal detectors or fortifying embassies, but fail to consider higher-order levels of government intervention, such as repression activities, that create higher levels of uncertainty for the terrorist organizations. As I will argue in Chapter 2, higher levels of uncertainty in the external operating environment should induce terrorist organizations to expand the options in their tactical repertoire in order to attempt to ensure the

organization's survival.

Further, Horowitz, Perkoski, and Potter (2018) provide support for a research agenda that considers tactical portfolios[20] as a dynamic set of tactical options. Horowitz, Perkoski, and Potter (2018) ask why some militant groups employ a more diverse set of tactics while others groups maintain a smaller portfolio. The authors argue that militant groups will diversify their tactical portfolios in response to increased uncertainty in the operating environment due to (1) increased state repression and/or (2) increased competition from other groups (Horowitz, Perkoski, and Potter, 2018). The author's hypotheses and empirical evidence drive the conversation forward on the conditions under which terrorist organizations will make adjustments to their tactical repertoire. I content that further work can be done to refine and expand on Horowitz, Perkoski, and Potter's (2018) contributions. In Chapter 2, I specifically work on this task by theorizing on how terrorist organizations respond to specific types of repression. And in Chapters 3 and 4, I begin to explore the theory outside the conditions of state repression.

1.4 Putting it All Together

I generated Figure 1.3 to capture how each concept from the preceding discussion fits together. When generating this figure, Gutiérrez-Sanín and Wood (2017) were particularly informative in their careful analysis of the different concepts. While their work focused on political violence as a whole, I created the figure to reflect my focus specifically on the use of terrorism, which is included in their broader discussion. The figure is split into two panels. The panel on the left shows the relationship from terrorist organization as a whole down to the individual decision about which technique/weapon is used in an attack. The panel on the right shows the main questions that are answered for analysts and researchers based on the information from the left panel. The questions provide a baseline understanding for each terrorist event. The figure captures the internal factors

[20]Horowitz, Perkoski, and Potter (2018) use the nomenclature portfolio to describe what I refer to as a repertoire. The concepts are equivalent; however, I use the nomenclature repertoire to mirror the broader language use of the contentious politics literature. To appropriately capture the contributions of Horowitz, Perkoski, and Potter (2018), I capture the nomenclature used by the authors.

that influence how terrorist organizations make decisions.

Figure 1.3: Relationship Between Strategy and Attack Choices

Starting at the top of Figure 1.3, the first level is a terrorist organization, which answers the question of "who" perpetrates the violence. Moving one level down, I show the strategy and goals, which answers the question of "why" the organization is taking action. In their discussion, Gutiérrez-Sanín and Wood (2017) do not explicitly consider the role that an organization's strategy and goals may play in determining the pattern of violence. Although, the authors do suggest that strategy may be a constraining factor for the organization in question. I explicitly consider the strategies and goals of terrorist organizations because I argue that the strategy and goals of an organization serve as a filter by which organizations can narrow down the potential list of violent activities. Other scholars put forward similar arguments. For example, Criado (2011) argues that

terrorist organizations first set a strategy and then have the choice between violent and non-violent actions to achieve the strategy.

There is an extensive literature on goals and strategies of terrorist organizations (See for example: Kydd and Walter, 2006; Abrahms, 2006; Jones and Libicki, 2008; Abrahms, 2008; Findley and Young, 2012*a*; Fortna, 2015). Some of the most notable work on terrorist strategies is Kydd and Walter (2006). The authors identify five goals and five strategies of terrorists. The five goals include: (1) regime change, (2) territorial change, (3) policy change, (4) social control, and (5) status quo maintenance (Kydd and Walter, 2006). In order to achieve those goals, the authors outline five strategies: (1) attrition, (2) intimidation, (3) provocation, (4) spoiling, and (5) outbidding (Kydd and Walter, 2006). Organizations can be engaged in multiple strategies simultaneously. The goals and strategies outlined by the authors implicitly assume that terrorists are engaged with the public and the state. In this dissertation, I argue that the audience of other terrorist organizations adds strategies and goals that may also serve as a filtering mechanism for making tactical decisions.

With the goals and strategy acting as a filter, terrorist organizations must then decide on the repertoire of violence, which is theoretically equivalent to the discussion on tactical selection above. Gutiérrez-Sanín and Wood (2017) explain that this step in the decision making process answers the question about "what" forms the violence will take. As I have already discussed the forms of violence available in a terrorists organization's tactical repertoire, we can move directly into the final three decisions to be made in advance of an attack.

Gutiérrez-Sanín and Wood (2017) argue that the final three decisions are made for each tactic that an organization chooses. The authors are agnostic about the order of the remaining decisions. For purposes of clarity, I will continue to work from top to bottom. After determining the optimal tactic(s), terrorist organizations must select a target, which is also discussed extensively above. Target selection answers the question "against whom" is the action taken. In addition, terrorist organizations need to decide the frequency with which the tactic will used as well as the timing for each event. Frequency and timing of the tactical use answer "when" and "how often" the form of

violence is employed. To round out the set of decisions, terrorist organizations must also decide on a technique, or weapon, that will be used in conjunction with the tactic. I provided distinctions between techniques and tactics above. The final question answered, then, is "how" the violent form carried out.

Taken together, the decisions surrounding the repertoire of violence, target selection, frequency/timing, and technique are the terrorist organization's "pattern of violence." Gutiérrez-Sanín and Wood (2017) argue that the level of specificity associated with the patterns of violence allow for higher quality comparisons across units (e.g., terrorist organizations) and circumstances. An additional benefit not considered by the authors is that Figure 1.3 can be used to assess event-level data or could be aggregated at any level in the analysis. While my analyses in this dissertation do not employ the full granularity recommended by Gutiérrez-Sanín and Wood (2017), the discussion so far suggests that parsing the data in such a manner could be a viable test for the theory I present, as a future research agenda.

In the immediately preceding section, I also discussed the role of external factors that influence decision making in terrorist organizations. Figure 1.3 does not depict the role of external factors in the decision making process. However, we can account for the external factors by first assuming that the decision making process presented in the figure takes place in respect to the environment in which the terrorist organization is operating. For example, in Chapter 2, I explore tactical decision making in the face of the state's use of repression. The repressive environment could impact the process from top to bottom. Further, in Chapters 3 and 4, I introduce the environment in which other terrorist organizations matter to the organization in question. And the relationships between those organizations is of particular importance. The introduction of a new audience for the terrorist organization's use of violence could be particularly influential at the stage of strategy and goal-setting.

1.5 Professional Terrorists? Normative Isomorphism and Stability in Repertoires

As discussed earlier, one of the notable patterns in tactical choice among terrorist organizations is the relative choice stability over time. Figure 1.2 shows a strong preference toward the selection of bombings and armed assaults. What explains the homogenization in terrorist tactical selection? Literature from sociology and public administration explore theories of group homogenization in ways that are not discussed in relation to terrorist tactical choices. One particularly influential theory of group homogenization is developed by DiMaggio and Powell (1983). These authors put forth three mechanisms that explain the homogenization of organizations over time. The three isomorphic pressures are: (1) coercive isomorphism, (2) mimetic isomorphism, and (3) normative isomorphism. The authors explain that, while it may be difficult to disentangle these mechanisms empirically, each of the mechanisms "... tend to derive from different conditions and may lead to different outcomes" (DiMaggio and Powell, 1983, 150). Next, I will explain how each of these mechanisms is constructed as well as how researchers have (or have not) integrated elements of each mechanism into the study of terrorist organizations.

Coercive isomorphism is the pressure that organizations face from other organizations upon which they are dependent (DiMaggio and Powell, 1983). This type of pressure is akin to a command-and-control structure in which an organization must act in a particular manner or else the organization may risk paying a cost. For the purposes of this dissertation, I exclude consideration of coercive isomorphic pressures.

Mimetic isomorphism is the idea that individuals or groups will imitate one another's behavior when faced with uncertainty. It is perhaps the most frequently engaged explanation for the spread of terrorist behaviors (See for example: Midlarsky, Crenshaw, and Yoshida, 1980*b*; Heyman and Mickolus, 1980; Midlarsky, Crenshaw, and Yoshida, 1980*a*; Horowitz, 2010; Kettle and Mumford, 2017; Goerzig, 2019; Polo, 2020). As some of the discussion in the spread and use of terrorist tactics suggested, many terrorism scholars gravitate toward models that suggest that terrorist or-

ganizations observe the actions of other groups and follow in that behavior when faced with their own tactical decision. In the theoretical discussion for Chapter 2, I argue that changes in the tactical choices made by a terrorist organization require that organization to undergo a search process for new options, which is a costly endeavor. Because searching for alternative tactical options is costly, terrorist organizations will attempt to identify ways to minimize the costs of searching for new, alternative tactics. One way to minimize the cost associated with searching for new, alternative tactics is for terrorist organizations to succumb to mimetic pressures.

DiMaggio and Powell (1983) explain that uncertainty in an environment can lead individuals or groups to imitate others. The advantage of imitating others is that it shortens the search process, thus minimizing the sunk costs that the group needs to pay, by drawing on the actions taken by others to provide new alternatives in the decision making process. Imitating others is considered a rational choice because an individual or group observes another individual or group taking an action and adjusts their own behavior to match (or nearly match) that behavior, particularly if the behavior that they are matching has proven successful in for the individual or group that is being copied (Rogers, 2003). Further, mimetic isomorphism can occur in the absence of any evidence that the behavior, policy, or tactic being emulated is actually effective at achieving the desired ends.

Finally, there is normative isomorphism, which is also known as professionalization. Professional, professionalism, and professionalization are three interrelated concepts, which carry a variety of definitions. The naïve, or common use, definition of professional "...is often used to describe a personal dedication to excellence, with perhaps a detached demeanor" (Teodoro, 2011, 61). But public administration scholars tend to adopt a narrower definition. (Teodoro, 2011, 61) suggests that the narrower definition of professional is "...adherence to standards set by external reference group of peers." Similarly, (Wilson, 1989, 60) defines a professional as "...someone who receives important occupational rewards from a reference group whose membership is limited to people who have undergone specialized formal education and have accepted a group-defined code of conduct." We will encounter further details about the formalization of education and group-

defined codes of conduct as related to terrorist organizations. Further, an individual's level of professionalism is a product of how much she allows her behavior to be shaped by her desire for the reference group's rewards (Wilson, 1989, 60). Thus, Wilson (1989) introduces the fact that professionalism can vary at the individual level, which suggests that it may also vary at the aggregate level. It is important to note that the aforementioned rewards need not carry material value, but may be intrinsic as well.

Disentangling the various forms of isomorphism can be difficult. My goal is not to state that normative isomorphism carries more theoretical value than the other two isomorphic pressures for terrorist organizations. Instead, I argue that normative isomorphism may provide another lens through which we can understand the actions of terrorist organizations. In this dissertation, I will use both mimetic and normative isomorphic explanations, which also provides evidence that the two pressures can work together to explain terrorist organizational behaviors.

1.6 The Professionalization of Professions

How do we know when a profession is professionalized? As espoused by Abbott (2014), professionalization is not a binary status. Instead, in keeping with Abbott (2014), I argue that we ought to think about professionalization on a sliding scale. There are several hallmarks or indicators that a profession is professionalizing. In his seminal article, Wilensky (1964) outlines five steps to professionalization. While his argument aligns more closely with a binary view of professionalization, the indicators that he develops are useful as a basis for our sliding scale of professionalization as well. First, the occupation must move from a part-time, or ad-hoc, basis to a line of full-time employment. The next step is the formalization of training programs. After training programs are developed, professional organizations begin to form. At this point in the system, there may be competing groups working to clearly delineate the work. Thus, the fourth stage is one in which the individuals engaged in the occupation protect the job territory, often through legal means. And finally, individuals engaged in the occupation in question will create a

formal code of ethics meant to guide the work of practitioners. I argue that terrorist organizations, although not all actors engaged in terrorist activities, are in the process of professionalization.

Wilensky (1964) begins describing the process of professionalization by explicitly stating that actors need to start doing what needs to be done full-time.[21] This explanation can be further explained using economic market terms. First, there must be a demand for the task to be completed. Individuals who resources and energy can supply the labor necessary for task completion. But it is not until the demand for task completion reaches or exceeds the individual's supply of labor that the first step is cleared. In cases where the demands for the labor exceed the supply, additional labor resources can be provided by adding supplying laborers to the market to meet the demand. For most actors holding a full-time position in an organization, Wilensky's first step to professionalization is achieved by definition.

Following a surge individuals who devote their resources and energy to an occupation full-time, the second step in Wilensky's (1964) process to professionalization is the emergence of training programs. The training programs described by Wilensky (1964) are the equivalent of the formal education described by Wilson (1989) above. March and Simon (1958, 70) also explain that "Professionalization implies specific formal training and thus substantial homogeneity of background." When these authors describe how training programs relate to professionalization, they are mainly concerned with formal, classroom education.

Somewhat related to the second indicator, the third indicator of professionalization is the development of professional associations (Wilensky, 1964). These associations often serve as "gatekeepers" for the profession. Wilensky (1964) explains that professional associations are often comprised of the individuals who push for the formalized training programs and have completed the requisite training experiences.

During the process of professionalization, multiple groups can form that are attempting to compete for the power to define the profession (Wilensky, 1964). Such territorial disputes among

[21] This assumption is implicit in the other explanations of professionalism that I discussed previously.

competing groups shape the critical landscape of the profession and the competing claims often need to be sorted out through the rule of law. Abbott (2014) grounds his discussion of professionalization in a discussion of the power to define the profession, which he refers to as the profession's "jurisdiction." I will discuss the concept of jurisdiction in Chapter 4 of this manuscript.

The final step in the process of professionalization is the formalization of a code of ethics that practitioners will follow (Wilensky, 1964). The Hippocratic Oath is an example of a formal code of ethics in the medical profession. The American Bar Association maintains several codes and oaths, which barred attorneys are expected to follow.

While not a comprehensive list of indicators of professionalization, Wilensky's (1964) steps to professionalization are a starting position through which we will examine whether or not terrorist organizations are professionalizing. In the dissertation, I will draw some parallels between the indicators above and some evidence that terrorist organizations are taking such actions. But before we can consider if terrorism can be professionalized, I want to begin with a discussion of whether violence as a whole can be subjected to a professionalization process.

1.6.1 The Professionalization of Violence

Can the use of violence be professionalized? Literature related to the professionalization of militaries, particularly those of Western descent, would suggest an affirmative answer (See for example: Huntington, 1981; Wolfendale, 2007; Olsthoorn, 2013; Janowitz, 2017). In one of the foundational pieces of scholarship on the professionalization of violence, Huntington (1981, pg.11) traces the origins of the "management of violence" to Harold Lasswell. When speaking to the professionalization of military officers, Huntington (1981, pg.15) argues that officers must master the skill of violence and accept the responsibility that comes from mastery of the skill. Through descriptive explanations of the military officer structure in the United States military Janowitz (2017) further develops the argument that violence can be professionalized by the state. Although somewhat dated, Feaver (1999) provides an excellent overview of the academic reach of the work

done by Huntington (1981) and Janowitz (2017) and how other scholars have used their works as the foundations for a rich academic literature on civil-military relations.

The study of the professionalization of violence has extended beyond the foundational work focusing on Western militaries. Musa and Heinecken (2022), for example, explore a case of what they argue is the unprofessional nature of the Nigerian military. Others explore military-to-military relationships and exchanges. Some of these exchanges occur "...through the United States' International Military Education and Training (IMET) program" (Brooks, 2019, 393). Training programs of this nature may elevate the professionalism of militaries, which in may improve control over civilian populations (Atkinson, 2006). However, other scholars argue that such training programs can provide individuals within authoritarian regimes with increased human capital, which in turn increases the probability of a coup (Savage and Caverley, 2017; Böhmelt, Escribà-Folch, and Pilster, 2019). As the literature on civil-military relationships continues to evolve, some scholars have shifted to focus on the role of a variety of different actors. For example, some scholars focus on sub-military actors, such as paramilitaries and progovernment militias (Böhmelt and Clayton, 2018). Another emerging literature focuses on police-military relations (Brooks, 2013; Kandil, 2014; Nassif, 2015; Genç Yılmaz, 2022). Brooks (2019) provides a thorough summary of the trajectory of and the potential next steps for the scholarly work in many of these emerging areas of the literature.

If the professionalization literature can be applied to state-run militaries and other state sub-actors, a natural extension would be to include non-state actors that use violence. In forthcoming work, Yi (n.d.) shows that the military training provided to individuals conscripted by colonial powers during World War II aids demands for statehood upon the end of the war. The author finds that nationalist movements are more likely to occur in locations where native populations conscripted by colonial powers during World War II. The argument aligns with the research done by Savage and Caverley (2017) and Böhmelt, Escribà-Folch, and Pilster (2019) discussed above. By receiving formal military training, individuals gain a skill set that is necessary to take actions that

better align with their interests, which may diverge from the state. These research agendas speak directly to a broader discussion on the role that past experiences impact future political actions at the individual level (See for example: Horowitz and Stam, 2014; Horowitz, Stam, and Ellis, 2015; Grossman, Manekin, and Miodownik, 2015; Kertzer and Tingley, 2018). Along these lines, Huang, Silverman, and Acosta (2022) develop a new dataset called the Rebel Organization Leaders (ROLE) database. The data are used to test how the past experiences of rebel leaders impact their future ability to obtain foreign backing. Beyond the initial application, the database shows promise for research questions that focus on the professionalization of non-state actor violence.

The question if non-state actors that use violence can professionalize remains open for contributions. And the extant literature on the professionalism of violent non-state actors suggests there is a scholarly appetite for research on the subject. For example, in his seminal work on insurgent violence, Weinstein (2006) argues that encouraging an environment of professionalism can help rebel group leaders maintain control of their organizations. Notably, he points to two hallmarks of the professionalization process, codes of conduct and training, as mechanisms through which rebel leaders can encourage professionalization (Weinstein, 2006). I return to a discussion of codes of conduct and training in Chapter 3.

There is one notable example of research along the lines of the professionalization of non-state actors. Finnegan (2019) develops an argument that non-state actors can professionalize in a manner similar to state-operated militaries through the use of a case study of the Provisional IRA (PIRA). The author encourages future work to develop additional individual case studies. My work will expand on this line of research by introducing the social element of professionalization. As we encountered earlier, professionalization requires acknowledgement of an external reference group. While studying a singular organization can test some of the conditions for recognition as a profession, I argue that to fully develop the argument that terrorist organizations are professionalized that we need to account for the relationships between the organizations. To support this agenda, I empirically test the relationships between organizations in this dissertation.

While the extant literature suggests that normative isomorphic pressures may shape the behavior of violent non-state actors, the existing theories and evidence largely explore the relationship at the incorrect level of analysis. There is a notable difference between whether or not individuals themselves are professionals or whether an occupation is professionalized. Professional individuals exist in most organizations that we encounter on a daily basis. A stand-alone organization itself may fulfill many of the criteria developed by sociologists to recognize professionalization, as is the case with Finnegan's (2019) study of the PIRA. Much of the existing literature on the professionalization of violent non-state actors focuses on the individual organizations. The question is *not*: are individual terrorists and terrorist organizations professional? Instead, the question is: is terrorism a profession? The existence of individuals or organizations operating in a professional manner is a necessary, but insufficient condition for determining if an occupation is a profession.

My work expands upon the extant literature of non-state actor professionalization to consider how the network of terrorist organizations influences professionalization. Studying the network of terrorist organizations moves the unit of analysis from the organizational-level to the occupational-level. I develop arguments about professionalization as it relates to the network of terrorist organizations because normative isomorphism implicitly assumes that there is a relationship between various individuals, working across organizations, who execute some kind of work or vocation. The relationships between the individuals in the various organizations is what allows some occupations, or vocations, to become professionalized. As the network of individuals and organizations becomes larger and the jurisdiction becomes more clearly defined, standards begin to rise and be codified (Wilensky, 1964; Abbott, 2014). And as the standards rise within a given jurisdiction, an occupation can become a profession. Put differently, in order to fully explore the role of normative isomorphism in non-state actor violence, we need explore the phenomenon at the occupational-level rather than through the use of evidence from individuals or individual organizations.

1.6.2 Scope Conditions for Chapters 3 & 4

I explore professionalization as it applies to non-state terrorist organizations. By limiting my analysis to non-state terrorist organizations, I purposely exclude cases in which the state perpetrates the act of terror as well as state-sponsored terrorist organizations. Further, the reliance on organizations will also exclude "lone wolf" actors and "one-hit-wonder" attacks organized by groups of individuals that never become formalized organizations, which Blomberg, Engel, and Sawyer (2010) suggest are the most common type of attack. I believe that the professionalization of non-state terrorist organizations leads to decision making processes that may operate differently from when a state uses terrorist tactics, state-sponsored terrorism, and lone wolf actors. And while "one-hit-wonder" groups may be influenced by the observed professionalization of well-established organizations, I exclude these groups from consideration. A future avenue for research is inclusion of "one-hit-wonders" into the theory.[22]

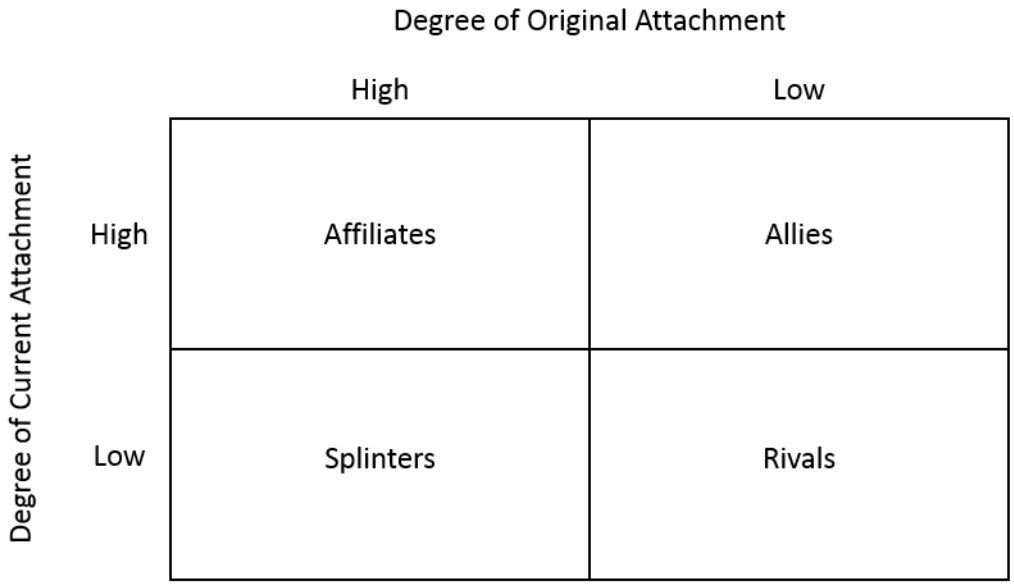
I argue that the first step to professionalization as outlined by Wilensky (1964) offers a scope condition for which actors are becoming the professionalized subset of actors who use terrorist tactics. That is to say, not all individuals who use acts of terror are professional terrorists. To make an analogy, suggesting that all actors who make use of terrorist activities are professional terrorists is akin to saying that anyone who performs basic medical care, like first aid, is a professional medical doctor. While individuals who are trained in first aid techniques may be aware of medical practices and even be trained by professional medical doctors, it does not mean that first aid-trained individuals are considered part of the professional medical community, especially if they do not engage with the activity in a full-time manner.

In Chapters 3 and 4, I focus on six specific types of terrorist organizations. The first type are

[22]I have some preliminary thoughts on how "one-hit-wonder" groups could be influenced by normative isomorphic pressures. I argue that "one-hit-wonder" groups may be influenced by normative isomorphic pressures through the same mechanism as described for the unattached organizations, which is another subgroup of terrorist actors that are largely left unexplored in this dissertation. Both "one-hit-wonder" and unattached organizations are vital to our understanding of the professionalization process of terrorism. Their relative exclusion from the dissertation was primarily a choice driven by the need to scope the manuscript.

the large, long-standing terrorist organizations, which I refer to as the parent organizations. There are three other types of organizations with some level of attachment to the parent organizations: (1) affiliates, (2) allies, and (3) splinters. The fifth category are rival organizations, which lack any direct attachment to and often are in direct competition with the parent organization. Any organization that fails to rise to the definitions of the five organizations under consideration will be defined as others or unattached organizations. Setting aside the others category, Figure 1.4 identifies the relationship between the parent organization and the four terrorist organizational types under consideration.

Figure 1.4: Relationship between Parent Organization and Different Terrorist Organization Types



A parent terrorist organization is one which has at least one affiliate, allied, or splinter terrorist organization within its network as a first-degree connection. It is important to note that the presence of a rival terrorist organization is not a sufficient condition for defining a parent terrorist

organization for the purposes of my argument. The primary reason is that when examining the relationship between two rivals, it would not be possible with no additional information to define which rival would serve as the parent terrorist organization. My focus also remains focused on first-degree relationships between the parent organization and its immediate affiliates, allies, splinters, and/or rival organizations. Questions regarding relationships at the secondary and lower degrees of connection could serve as an area to receive future attention. Further, questions regarding how the relationships between affiliate, allied, splintered, and rival organizations play in the role of the professionalization of terrorist organizations also remain outside the scope of my current analysis.

I argue that an affiliate organization is a special subset of the ally classification. The primary difference between the two classifications is the degree of original attachment to the parent organization. In most cases, the parent organization, being the organization in power to determine the classification of different relationships, will act as a gatekeeper by deciding which organizations are classified as affiliates and which are classified as allies. For example, al Qaeda plays such a gatekeeping role by maintaining a tight-hold on which organizations can use the al Qaeda branding in their names and which organizations cannot (Mendelsohn, 2015). In many ways, this type of gatekeeping is akin to determining which potential recruits will eventually be granted permission to join the organization with formal recognition (De Mesquita, 2005). Formally recognized recruits are those that have been extended formal offers from those inside the organization. Alternatively, the organization may allow others to act using its name, but will not afford those individuals any of the personal benefits of organizational membership.

Allies are also formally recognized by the parent organization, although the nature of their relationship with the parent organization is different from that of affiliates. Allies may share resources and training burdens with the parent organization, which generates formal opportunities to define the acceptable behaviors of the allied organization. However, allies are not permitted full access to the parent organization's branding and marketing. There are two plausible reasons why an affiliate maintains a lower degree of original attachment to the parent organization. First,

the ally may wish to retain some autonomy in their own decision making and internal structure. Therefore, the ally is satisfied with the level of support afforded to the organization without the additional benefits provided from a closer level of allegiance to the parent organization. Second, as mentioned above, the parent organization may not want every ally to be an affiliate because affiliates maintain a higher-degree of original attachment, and too many affiliates could overextend the parent organization.

Splinter organizations are those terrorist organizations that had a stronger degree of attachment with the parent organization at the beginning, but have severed the tie with the parent organization. I argue that splinter organizations are a special subset of rival organizations, much like affiliates are a subset of allies. Splinter organizations can emerge directly from a parent organization or start as an affiliate. One example of a splinter organization that emerged directly from a parent organization is the Reall Irish Republican Army (RIRA), which splintered from the Provisional Irish Republican Army (PIRA) when a subset of RIRA members disagreed with the strategy set by PIRA leaders (Finnegan, 2019). A further example of a splinter organization is the Islamic State, which originated as an al Qaeda affiliate. In both cases, the organizations splintered from the parent organization over disagreements regarding organizational direction, which included internal arguments over appropriate tactical decisions.

Rival organizations are those that stand in direct opposition to the parent organization. In many instances, rival organizations may share ideological motivations. Rival organizations are in direct competition with the parent organization for access to financial and material resources, potential recruits, community support, and other intangible assets. I will geographically bound rival-based relationships. Specifically, I will only include organizations that operate in the same state as the parent organization that do not qualify as affiliates, allies, or splinters. By geographically bounding rivalry relationships, I assume that the organizations are in direct head-to-head competition for financial and material resources, potential recruits, community support, and other intangible assets. One avenue for future work is to consider broadening the definition of rivals to allow for regional

or transnational rivalries.

Finally, organizations that fail to rise to the definitions of the five organizational types described above are the others, which we can think about as unattached organizations. Organizations that simply emulate or mimic without any professional ties to a parent organization also fall into this category. For the purposes of my dissertation, I do not spend considerable time or attention on unattached organizations. Despite a lesser role in this dissertation, organizations falling into the the others category play an important role in our collective understanding of terrorist organizations. Future research should work to unpack the role that organizations in the unattached category play in the professionalization of terrorism. For example, we may want to understand the conditions under which an organization moves from the others category to become allies or rivals. Because unattached organizations fall outside the structured networks that I argue are evidence of the professionalization of terrorist organizations, I argue that the tactical behaviors of unattached organizations are better described applying the prevailing argument for mimetic pressures, to the extent that there is overlap in their tactical repertoires with other terrorist organizations.

2. TERRORIST ORGANIZATIONS' DECISION MAKING IN RESPONSE TO STATE REPRESSION

> "The general who thoroughly understands the advantages that accompany variation of tactics knows how to handle his troops."
>
> —SUN TZU (*The Art of War*)

2.1 Introduction

Why and when will a terrorist organization expand (or contract) the types and number of tactics it is willing to employ? In 2014, the Islamic State appeared to be taking a page straight out of Sun Tzu's *The Art of War* when it urged potential attackers to consider expanding the choices for potential types of attacks (Tzu, 2008). The Islamic State wanted potential attackers to consider expanding their options to include the use of "low-tech" attack options, listed in the epigraph of the introduction, should more traditional tactical choices be unavailable to these potential attackers. Between 2016 and 2018, there is some evidence that attackers took heed of the advice by using vehicle-ramming attacks. Despite the call-to-action from the Islamic State and what appears to be a response from actors associated with the organization, we still do not know why the potential attackers were encouraged to expand their tactical options in the first place.

Expanding the tactical choice set available to terrorist actors can be both costly and potentially risky, especially if the organization is attempting to use a tactic that has never been employed by that organization. The Islamic State encouraging the use of an expanded set of tactical options carries an implicit assumption that the organization thought it was necessary for its followers to change their tactical choice sets. In this chapter, I explore the conditions under which terrorist organizations, such as the Islamic State, choose to expand their tactical choice sets, as well as the conditions that lead to specific choices on which tactics to employ.

I argue that terrorist organizations use specific tactics and expand the number of tactics em-

ployed in response to increasing uncertainty in the external operating environment, specifically in response to a state's use of repressive tactics to counter violent terrorist organizations. Based on a rational choice model, I argue that terrorist organizations will match the state's repression actions in subsequent attacks. Further, when a matching technique is no longer available or optimal, a terrorist organization will have no choice but to increase the number of tactical types it employs in an attempt to make its actions less predictable for the state.

Questions of political behavior relating to how decisions are made abound in political science and the social sciences more generally. While models of rational actors assume that a comprehensive set of alternatives is available for every option, evidence from social psychology suggests that individuals use shortcuts to improve the efficiency and effectiveness of the decision making process. Using insights from social psychology, public policy, and contentious politics, I offer an argument about how we should expect terrorist organizations to respond to changes in the external operating environment.

Through the analysis offered in this chapter, I contribute to a number of academic discussions. First, I contribute to the ongoing discussions about the potential repercussions states may face when using violent repression. Second, I contribute to the literature that examines how terrorist organizations make decisions. Rather than examining terrorist tactics one at a time, I consider the range of violent actions that a terrorist organization regularly employs in order to achieve its political goals. Looking across the available tactics aligns the research more closely with observable reality. And finally, this chapter contributes to the study of dynamic decision making more broadly. In this chapter, I offer some conditions under which individuals (or organizations) might consider expanding beyond the options they typically consider during the decision making process.

2.2 Dynamic Decision Making

Decision making processes do not take place in a vacuum, but rather require individuals and groups to interact with others and consider environmental factors as part of the process. Brehmer

and Allard (1991) capture and define dynamic decision making processes as being embodied through three characteristics. First, dynamic decision making processes require the individual or group to make a series of interdependent choices. Thus, individuals or groups making a singular choice are not part of a dynamic decision making process. Instead, these decisions are static in nature. Second, Brehmer and Allard (1991), explain that the state of the decision making process changes over time. These changes can be both a result of the decision maker's actions and autonomous changes to the process. And finally, in order for a decision making process to be dynamic, the decisions need to be made in real time (Brehmer and Allard, 1991).

These conditions apply to terrorist organizations that make more than one decision to execute an attack, under the first criterion. Second, as terrorist organizations execute attacks, the external operating environment is changing. And finally, terrorist organizations are making decisions in real time because if an organization fails to act then it may miss its opportunity to compel change in the political environment. Further, failure to act in real time could result in the termination of the organization. And while Brehmer and Allard (1991) offer a model for considering what it takes to qualify as a dynamic decision making process, the authors do not specifically examine the list of options an individual or group will have to choose between.

For considerations of the list of alternative actions that an individual or group may take, we have to turn our attention to more classic models based on rationality. Rational-comprehensive models of decision making suggest that when a rational actor is faced with the task of making a decision, she will consider all of the options available (Lindblom, 1959; Kingdon, 1984). Consideration of all the alternative options is sometimes referred to as the search process. That is, an individual will continue to search for all available options until an exhaustive list is formed. After considering the potential payoffs for each option as well as her own preferences, she will choose the option that maximizes her expected utility. Under rational-comprehensive models all options are effectively "on-the-table" for consideration (Lindblom, 1959).

There is evidence, however, that such rational and comprehensive consideration of all options

for every decision is not only unlikely, it may be impossible for most individuals. Individuals are cognitively bounded, which places limitations on an individual's ability both to identify all available options and calculate the expected utility of each (Lindblom, 1959). Further, research suggests that an individual's ordered preferences may change over time and as the result of evolving external circumstances (Kingdon, 1984). Thus, the expected utility for each option is likely to change over time and as external circumstances change. To make decisions under these complicated circumstances, individuals to rely on heuristics, or "rules of thumb" (Tversky and Kahneman, 1974).

March and Simon (1958) explain that the act of searching for alternatives is a costly process for individuals: as an individual invests time and resources into considering options, she is incurring a sunk cost before the decision is even made. Thus, "Individuals and organizations give preferred treatment to alternatives that represent continuation of present programs over those that represent change" (March and Simon, 1958, 173). The idea of preferential treatment being offered to previously employed decisions is a heuristic called "anchoring." Under the anchoring heuristic, individuals begin their search for options by considering the results of past decision making processes (Tversky and Kahneman, 1974).

Building from the findings in social psychology, Mintz et al. (1997) introduce the poliheuristic theory of decision making into foreign policy analysis. The authors suggest that decision making contains two distinct processes. First, in a screening stage, actors determine the options from which they are able to choose. The actor's list of available options is known as a screened list. Then actors turn to selecting a final choice from the screened list (Mintz et al., 1997). If we think about applying a poliheuristic theory of decision making into the context of terrorist organizations, then the screening phase would allow for organizations to set which options it will regularly choose from when making tactical choices. Then individual tactical decisions will be made based off the existing screened list. The poliheuristic theory of decision making is useful for examining situations in which the list of available options is believed to be dynamic rather than static.

In public policy studies, one way researchers think about expanding alternative policy options or how new policies are brought to the agenda, which implies a dynamic process, is through "focusing events." Birkland (1998, 54) defines focusing events as "...an event that is sudden; relatively uncommon; can be reasonably defined as harmful or revealing the possibility of potentially greater future harms; has harms that are concentrated in a particular geographical area or community of interest; and that is known to policy makers and the public simultaneously." Such events have the power to create what Kingdon (1984) refers to as "windows of opportunity" for large-scale changes to public policies. Applying the logic of focusing events into the context of a terrorist organization making a decision provides some leverage for understand when such an organization would consider expanding its tactical choice set. Specifically, a focusing event would need to be a change in the environment that is (1) sudden, (2) uncommon, (3) harmful to the terrorist organization in question, (4) harmful to the operating environment of that organization, and (5) is known both to the terrorist organization and other actors such as the state simultaneously. As we will see below, changes in state repression activities could be thought of as a focusing event that drives terrorist organizations to make the decision to expand their tactical choice sets.

2.3 State Repression and Terrorism

I am interested in further exploring how terrorist organizations respond to different types of state repression activities that are directed at the terrorist organizations. Goldstein (1978, xxvii) defines repression as "the actual or threatened use of physical sanctions against an individual or organization, within the territorial jurisdiction of the state, for the purposes of imposing a cost on the target as well as deterring specific activities and/or beliefs perceived to be challenging to government personnel, practices or institutions." The purpose of using state repression activities is to discourage other actors, in this case terrorist organizations, from the ability or willingness to participate politically. Actors are deterred by placing a high cost on the decision to engage in the activity that the state deems is disruptive to the established political system. Tilly and

Tarrow (2015, 38) explain that "..violent repression is only one of a differentiated set of tools that a state uses in order to oppose challengers." If we imagine the tools available to states to respond to contentious actors, violent repression will be at the far end of the scale. Less physical acts of repression, such as respect for civil liberties, will be at the other end of scale. And we might imagine counter-terror measures taken by the state would take their place in the middle of the scale. In this chapter, I focus on the extreme end of the scale in which a state uses violent repressive activities against a specific terrorist organization(s).

In this chapter, I specifically focus on state repression activities that are directed at terrorist organizations. A state's decision to use repressive activities to counter terrorist activity goes above and beyond "typical" counterterror strategies, such as the hardening of targets or monitoring of terrorist activities. The extranormal nature of the physical sanctions levied against those that engage in terrorist activities raises the cost of participating in terrorist activities significantly. I argue that targeted, specific state repressive activities can be classified as focusing events, based on the above definition, that cause terrorist organizations to reassess their tactical repertoires. A state's decision to use repressive measures can be sudden, evolving uncommon activities that are geared toward harming the terrorist organization. A prolonged campaign of repressive activities can harm the operating environment of a terrorist organization. And because the repressive activities are targeted and specific to an organization in question, the repression is known to the state and the terrorist organization simultaneously.

After the state escalates to the use of repression activities, terrorist organizations have two options: (1) acquiesce to the state or (2) respond. If a terrorist organization chooses to acquiesce to the state, it will often lead to organizational decline (Cronin, 2009). On the other hand, if a terrorist organization chooses to respond, Horowitz, Perkoski, and Potter (2018, 146) argue that "High levels of repression also magnify a militant group's desire and need to successfully retaliate against the state." A response of retaliation implies that a terrorist organization needs to either match or outbid the sanctions imposed from the state's use of repression. Physical acts of violence

by the state pose the greatest risk to terrorist organizations because physical acts of repression are a state's most extreme tool to contain violence. As Horowitz, Perkoski, and Potter (2018) suggest, state repression introduces uncertainty into the external operating environment for terrorist organizations, which drives these organizations to shift their tactical choice in the hopes of survival. DiMaggio and Powell (1983) suggest that individuals and groups will diversify their strategies and tactics in response to increased uncertainty from external actors. This logic also aligns with classic work done on investment portfolios, which suggests that investors ought to maintain a diverse investment portfolio to reduce the risk of financial loss due to a single investment (Markowitz, 1971; Goetzmann and Kumar, 2008). I argue that when a terrorist organization faces repressive activities from the state, it needs to consider tactics beyond the most common campaigns of bombings and armed assaults in order to increase its odds of surviving the targeted counter-violence.

2.4 Responding to Uncertainty from State Repression

Changes in the tactical choices made by a terrorist organization require that organization undergo a search process for new options. March and Simon (1958) suggest that because the act of searching for alternative options is a costly endeavor, it should only be executed when satisfaction with the extant list of options is decreasing. In the case of increased state repression targeting an organization, a terrorist organization's satisfaction with its extant tactical choice set is likely to be decreasing and this creates pressure to add variety in the hopes of surviving against the increasing physical violence targeting the organization. As a reminder, the extant tactical choice set represents the two most commonly used tactics of bombings and armed assaults. Furthermore, a terrorist organization may expand its tactical choice set in the face of increasing physical violence targeting the organization in order to avoid appearing weak against the state's actions. Because searching for alternative tactical options is costly, terrorist organizations will attempt to identify ways to minimize the costs of searching for new alternative tactics and may succumb to mimetic and/or normative pressures.

DiMaggio and Powell (1983) explain that uncertainty in an environment can lead individuals or groups to imitate others. The advantage of imitating others is that it shortens the search process, thus minimizing the sunk costs that the group needs to pay, by drawing on the actions taken by others to provide new alternatives in the decision making process. Imitating others is considered a rational choice in the rational choice model because an individual or group observes another individual or group taking an action and adjusts their own behavior to match (or nearly match) that behavior (Rogers, 2003). The implicit assumption in this argument is that an organization will match (or nearly) match successful or effective behaviors.

I argue that one actor from which terrorist organizations take their cues for alternative tactical choices is the state. Specifically, I expect that when responding to state repression, terrorist organizations will act in matching behavior, or a near-matching behavior by identifying tactics that mimic those employed by the state. But why match the behavior of the state? The state's use of extreme counter-violent tactics, such as those associated with repression, cause terrorist organizations to hone in on violent actions of the state. When faced with the decision to acquiesce or respond, a terrorist organization must consider the repressive activities of the state. As the repressive activities will be visible to the terrorist organization, mimicking the state's actions is one way that the terrorist organization can make the search process less costly. The terrorist organization is able to observe the state's actions and will consider adopting (near-) matching behavior, when appropriate. The argument assumes that the state's repressive activities are clearly visible to the terrorist organization, seen as credible counter-violent actions targeted against the organization in question, and effective. Further, my argument assumes that the state's repressive activities can be (nearly-)matched by terrorist violence.

The second mechanism through which a terrorist organization may choose to adopt a (near-)matching strategy when faced with state repressive activities is normative isomorphism. As explained in the introduction chapter, state actors are often viewed as "managers of violence." In particular, military and law enforcement personnel can be interpreted as the professionals of vio-

lence. As a terrorist organization seeks to professionalize, it must compete for legitimacy to also be viewed as a "manager of violence." By adopting a tactic that (nearly-)matches the repressive action of the state, a terrorist organization is attempting to signal that it is capable of following the norms of the professionals. I argue that taken together, mimetic and normative pressures, reduce the cost associated with identifying new terrorist tactics and cause the terrorist organization to (nearly-)match the repressive activities of the state, when possible. My argument implies that terrorist organizations are attuned to the decisions made by states to counter the organization's violent activities. While the state is not the only actor that a terrorist organization can choose to respond to, when faced with extranormal counterterror strategies, the state becomes the primary opponent of interest for a terrorist organization.

While there are many types of repressive actions that a state can take to counter terrorist activities, for the scope of this dissertation, I focus on the four most commonly recognized types of repression. The international community generally recognizes (and measures) four types of state repression activities: extrajudicial killings, disappearances, political imprisonment, and torture. Cingranelli, Richards, and Clay (2014) define each of the state repression activities. Extrajudicial killings are events in which state officials kill individuals without following due legal process (Cingranelli, Richards, and Clay, 2014, 7). In the case of terrorism, extrajudicial killings would target individuals associated with a specific terrorist organization. Disappearances are defined as events in which an individual goes missing, likely due to political motivation and state officials are likely responsible for the disappearance (Cingranelli, Richards, and Clay, 2014, 12). Political imprisonment refers to individuals who are incarcerated by state officials due to "...their speech; their non-violent opposition to government policies or leaders; their religious beliefs; their non-violent religious practices including proselytizing; or their membership in a group, including an ethnic or racial group" (Cingranelli, Richards, and Clay, 2014, 21). For the scope of this study, disappearances and political imprisonment also focus on individuals associated with a specific terrorist organization. And finally, torture is defined as the use of extreme mental or physical pain by state

officials against individuals (Cingranelli, Richards, and Clay, 2014, 17). Torture may or may not be used to gather information about an individual or group that is considered a threat to the status quo of the state's power. For the purposes of my argument, I assume that a state's use of torture is aimed at gathering information about a specific terrorist organization. The torture will be directed towards members of the organization that are captured through judicial and extrajudicial processes. Violations that span across multiple categories are known as threats to the physical integrity of an individual or organization.

My argument aligns specific expectations to the different types of terrorist repressive activities, which is an extension of the work done by Horowitz, Perkoski, and Potter (2018). To aid the reader, Table 2.1 captures each of my hypotheses and the associated mechanism. The first column provides the hypothesis identifier. The second column captures the five types of state repression: (1) extrajudicial killings, (2) disappearances, (3) political imprisonment, (4) torture, and (5) violations of physical integrity. In the third column, I show my theoretical expectations. And the final column identifies the mechanism through which the hypothesis is derived. There are two theoretical mechanisms: (1) matching (or nearly matching) behavior and (2) revolutionary reaction.

Table 2.1: Overview of Hypotheses

Hypothesis	**State Repression Type**	$\Longrightarrow$	**Terrorist Tactical Choice**	**Mechanism**
H2a	Extrajudicial Killing		Assassinations	Matching Behavior
H2b H2c	Disappearances Political Imprisonment		Hostage Incidents	Matching Behavior
H2d H2e	Torture Physical Integrity		Increase number of tactics	Revolutionary Reaction

I am interested in identifying the conditions under which terrorist organizations to change from the most frequently used tactics, bombings and armed assaults[1], to consider other tactical choices. I focus first on the matching (or nearly matching) mechanism, which I developed above. When the state is using extrajudicial killings, based on the available tactical choices, I argue that assassinations are the nearest matching behavior for a terrorist organization. The logic for selecting assassinations is that such attacks also specifically target individuals of interest with the intention of killing the individual outside the normal judicial processes. Thus, when the state uses discriminatory violence, we should expect to see terrorist activity respond in kind. When the state uses disappearances or political imprisonment, which may be seen as substitutes for one another, I argue the nearest matching behavior available to terrorist organizations is hostage incidents. Hostage incidents may provide terrorist organizations with the necessary leverage to negotiate for the return of disappeared or politically imprisoned individuals. This yields the first three hypotheses:

Hypothesis 2a. *Increasing state repression in the form of extrajudicial killings should lead terrorist organizations to increase the use of assassinations.*

Hypothesis 2b. *Increasing state repression in the form of disappearances should lead terrorist organizations to increase the use of hostage incidents.*

Hypothesis 2c. *Increasing state repression in the form of political imprisonment should lead terrorist organizations to increase the use of hostage incidents.*

Tilly (2003) suggests that while state repression can lead to a contraction of the tactical choice set, there may be conditions under which actors will expand their tactical choices when facing state repression. First, actors may expand their tactical choices if there is any sign of weakness or

[1] See Figure 1.2.

visible division from the repressing party. Second, if the actors receive defensive support from an ally. And third, when repressive acts threaten the survival of the individual or group in question, again a condition that we encountered earlier when developing the logic for a matching behavior. Similarly, Tilly and Tarrow (2015) explain that the changing interactions between a state and contentious actors can lead to a spiral effect in which the contentious actors respond to state actions by escalating the types and frequencies of their actions. Gurr (1971) explains that while acts of terror can demonstrate a regime's inability to protect its citizens, that such acts are likely to incite counter-violence from the regime. And regimes that have experienced such terrorist violence may begin to reallocate resources to measures of coercive control.

State repression in the forms of extrajudicial killings, disappearances, and political imprisonment all offer opportunities for terrorist organizations to respond in (near-)kind as the rational choice model suggests. However, I do not expect a terrorist organization to respond in (near-)kind when faced with the state's use of torture. While terrorist organizations are capable of responding with the use of torture, I argue that the circumstances surrounding the use of torture force terrorist organizations to not only respond in kind, but also to expand the total number of tactics in their tactical portfolios. The logic for the decision to diversify the tactical portfolio is based on the assumption that the state's use of torture is intended to elicit information about the terrorist organization from the individual being tortured. I argue that the terrorist organization will become concerned about the operational security of future planned attacks if someone is captured and tortured because the terrorist organization does not know if the individual will reveal the information under the persuasion of the state's use of terrorism. Because the terrorist organization cannot guarantee the operational security of its intended strategy, it must diversify its tactics in its forthcoming attacks in order to attempt to confuse the state of its intentions.

Therefore, I propose a separate mechanism to explain how terrorist organizations respond to state's use of torture. Explanations for how terrorist organizations respond to the use of torture are particularly important, as Amnesty International reported that nearly half of all countries employed

the use of torture in 2011 alone (Conrad, Haglund, and Moore, 2013). Gurr (1971) suggests that the final tactical option available to groups that are using violence to incite change in the political environment, when met with counter-violence from the state, is "open revolutionary warfare." While Gurr (1971) never specifically defines open revolutionary warfare, I contextualize open revolutionary warfare as a group's ability to move rapidly among a multitude of varying tactics in order to overwhelm the state's security forces.[2] I refer to this mechanism as the revolutionary reaction in Table 2.1.

When terrorist organizations face the use of torture, I argue that because of concerns that the captured individual may divulge future attack plans, a terrorist organization will increase the number of types of tactics they use in a revolutionary-style reaction. That is, a terrorist organization will expand its tactical repertoire by using more attack types than it has in the past in an attempt to confuse and overwhelm the state's forces. However, I have no specific expectations about particular attack types that will be included in the repertoire.

Hypothesis 2d. *Increasing state repression in the form of torture should lead terrorist organizations to increase the number of types of tactical choices they make.*

Finally, I consider the possibility that states may use multiple types of state repression. I argue that state repression activities exhibit an additive effect. The additive effect of repressive activities are known as violations of physical integrity. This theoretical argument is in alignment with Horowitz, Perkoski, and Potter (2018). That leads to the final hypothesis, which I label as a replication hypothesis:

Hypothesis 2e. *Increasing state repression across a variety of repression activities should lead terrorist organizations to increase the number of types of tactical choices they make.*

[2]We might consider "open revolutionary warfare" as a guerrilla warfare tactic.

In Table 2.1, I label the mechanism for H2e as the revolutionary reaction. It is important to note that Horowitz, Perkoski, and Potter (2018) do not use this specific language to describe their mechanism. However, the proposed mechanism aligns closely with the authors' argument. While I draw upon the work of Horowitz, Perkoski, and Potter (2018) to develop my theory, it is important to note that my theory extends beyond the scope of the original work. I develop a series of expectations about how terrorist organizations will respond to specific types of state repression, whereas Horowitz, Perkoski, and Potter (2018) focus on state repression writ large. In addition to disaggregating among different types of state repression, I assume that the repressive activities are specifically targeting the terrorist organization in question, whereas Horowitz, Perkoski, and Potter (2018) assume that any state repressive activity will induce a response from terrorist organizations. Therefore, while my argument builds on the existing work by offering more specific expectations about how terrorist organizations respond to different types of state repressive activities.

2.5 Data

2.5.1 Dependent Variables: Tactical Choices

In order to develop the dependent variables, I use the Global Terrorism Database (GTD), which is an event-level data set that tracks terrorist activities from 1970 to 2019 (National Consortium for the Study of Terrorism and Responses to Terrorism (START), 2021*b*). I include a discussion on my choice to use the GTD as well as other data sources in Appendix C. Ultimately, the data are are censored to only examine events between 1981 and 2011 based on the availability of the covariates, primarily the measures of state repression. There are over 201,000 events recorded in the complete dataset.

Events are collected using news reports[3] and must meet the GTD's definition for terrorism. GTD defines a terrorist attack as "...the threatened or actual use of illegal force and violence by

[3]As with any event-level dataset that are collected from media sources, researchers need to be aware of potential biases induced in both the reporting and recording of events (Cook and Weidmann, 2019; Cook et al., 2017).

a non-state actor to attain a political, economic, religious, or social goal through fear, coercion, or intimidation" (National Consortium for the Study of Terrorism and Responses to Terrorism (START), 2021*a*). For an event to be recorded in GTD, at least two of three inclusion criteria must be met: (1) "the act must be aimed at attaining a political, economic, religious, or social goal;" (2) "there must be evidence of an intention to coerce, intimidate, or convey some other message to a larger audience(s) than the immediate victims;" and (3) "the action must be outside the context of legitimate warfare activities" (National Consortium for the Study of Terrorism and Responses to Terrorism (START), 2021*a*, 12).

Following the method outlined by Enders, Sandler, and Gaibulloev (2011), I use the "Doubt Terrorism Proper" filter to purge the event-level data of any events that fail to meet all three inclusion criteria. Restricting the observations to only those that meet all three inclusion criteria eliminates observations of other forms of political violence that share similarities with terrorism. Those events failing to meet all three inclusion criteria are classified as one of the following: (1) insurgency/guerrilla action; (2) other crime type; (3) intra/inter-group conflict; (4) lack of intentionality; or (5) state actor (National Consortium for the Study of Terrorism and Responses to Terrorism (START), 2021*a*, 12). The use of the "Doubt Terrorism Proper" filter drops 23.3% (or 46,894 observations) of the total events from the original dataset. Further, because my theory applies to terrorist organizations, I use the "Individual" filter to purge the event-level data of any events that were perpetrated by individuals unaffiliated with a terrorist organization (National Consortium for the Study of Terrorism and Responses to Terrorism (START), 2021*a*). Removing events using the "Individual" drops 0.4% (or 559 observations) of the remaining events in the data. After the data are properly purged of out-of-scope events and reshaped to the organization-country-year unit of analysis, there are approximately 14,000 observations in the final dataset that I use for my analyses.

For each event in the dataset, GTD records the tactic used in the event.[4] In my analysis, there

[4]GTD allows for up to three tactical choices to be recorded for each event. I only focus on the primary tactic used.

are six tactical choice categories:[5] (1) assassination, (2) armed assault, (3) bombing/explosion, (4) hostage incident, (5) facility/infrastructure, and (6) unarmed assault. Figure 2.1 shows the distribution of tactical choices from 1981-2011, which are the data used in the sample for the empirical test. Each bar represents the proportion of attacks classified by tactic. Much like the distribution for the complete dataset, shown in Figure 1.2, bombings and armed assaults are the two most frequently used tactics and account for nearly three-quarters of all the observations in the sample. Assassinations and hostage incidents, two of the main tactical choices under theoretical consideration, represent 13.3% and 6.4% of the sample respectively.

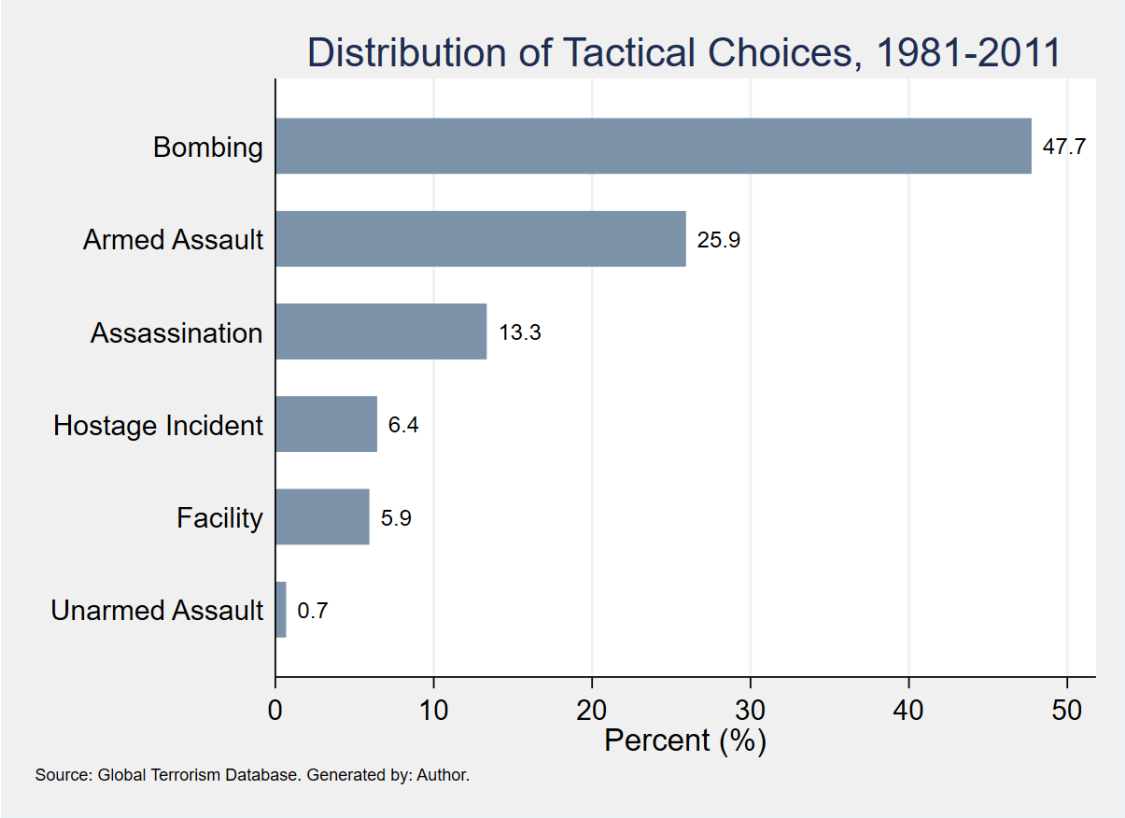
I develop two different dependent variables to test the hypotheses. The first dependent variable is a binary measure for a organization's use of each tactical category. The unit of analysis for the first dependent variable is organization-country-year. When threatening or executing an attack, organizations choose among the six options described above. These choices are considered discrete and the list of choices is exhaustive. This version of the dependent variable will be used to test the first three hypotheses, in which I have specific expectations about which tactical choice will be selected based on the conditions of the external operating environment (i.e., in response to the state's use of extrajudicial killings, disappearances, and political imprisonment).

The second dependent variable is a count of the number of tactics each group uses. To construct the second dependent variable, the dataset is reshaped to the group-year-country unit of analysis. Thus, the variable is the number of tactics used by each group in each country in which that

In approximately 97% of the events, only one tactic is recorded.

[5]GTD records nine tactical choice categories. In this analysis, I drop any case in which the tactical choice is unknown, which is approximately 5% of the events in the entire dataset. Further, I combine kidnapping, barricade incident, and hijacking events into a single category called "hostage incidents." The three collapsed categories are often treated as substitute tactical choices (Enders and Sandler, 1993). The descriptions in the GTD code book are also informative for my decision to collapse the categories. The only difference between a kidnapping and barricade incident is that in a kidnapping, the victims are moved to an undisclosed location. Whereas in a barricade incident, the victims are held in the location in which they are found (National Consortium for the Study of Terrorism and Responses to Terrorism (START), 2021*a*). The code book describes that in hijacking events, the focus is on capturing the vehicle rather than the capture of individuals. However, given that individuals are often present in hijacking events and that hijackings only account for less than 1% of all events, the category can be combined hostage and barricade incidents (National Consortium for the Study of Terrorism and Responses to Terrorism (START), 2021*a*). Substantively, the difference between the three categories is marginal for the analysis.

Figure 2.1: Distribution of Tactical Choices (1981-2011)



group operates for every year that the group threatens or executes an attack. As this version of the dependent variable is a count of the number of tactics a group uses, it can take on values between 1 and 6. This version of the dependent variable is used to test the last two hypotheses, in which I do not have specific expectations about the specific types of tactics that will be selected, but rather have expectations about how many tactics will be selected.

2.5.2 Independent Variables: State Repressive Activities

For the state repression measure, I use the Cingranelli and Richards (CIRI) Human Rights dataset (Cingranelli, Richards, and Clay, 2014). The CIRI dataset is one of the most frequently used datasets to measure the concept of state repression (Conrad and Ritter, 2019). The U.S. Department of State and Amnesty International each publish annual reports that assess the extent to

which such activities are carried out by each country around the world. Data are drawn from an analysis of U.S. State Department and Amnesty International reports on the conditions of human rights in 195 countries from 1981 to 2011. The data are reported at the country-year level. While I argue that terrorist organizations are responsive to repressive activities targeting a specific organization(s), the best available repression data with global coverage are measured at the country-level. A future research avenue for consideration is identifying state repressive activity measures at the organization-level. The data used in this chapter are measured across of four subcategories: (1) extrajudicial killings, (2) disappearances, (3) political imprisonment, and (4) torture. Each of these categories is measured on a 0-2 scale. A fifth category of physical integrity is created by summing across each subcategory, resulting in a composite measure of a country's total repressive activity in a given year. The physical integrity score is measured on a 0-8 scale.

Table 2.2 provides a summary of how each category is measured in the original dataset as well as in my data. Each type state repression type is represented in the first column. In the second column, I report the number of incidents reported from the analyses conducted by the U.S. State Department and Amnesty International reports. The third column reflects the inverted original measures from the CIRI dataset. Because the original data are measured in terms of a country's respect toward human rights, I invert the scales for my analyses to capture violations of these conditions. The data for the first three columns are pulled directly from the CIRI dataset (Cingranelli, Richards, and Clay, 2014).

In the final column, I convert the 3-point scale used in the inverted original measure into a binary measure for my purposes. When a country does not have any incidents of a specific repression type (or the value is unreported), my binary measure is coded as 0. When a country practiced a repression type either occasionally or frequently, my binary measure is coded as 1. I convert the 3-point scale from the original data into a binary measure as I do not have specific expectations about how the different levels of repressive activities impact tactical choice selection. Operationalizing the data in this manner is appropriate because the theory presented focuses only on whether or

Table 2.2: Measurement of the Independent Variables

State Repression Type	**# of Incidents Reported**	**Inverted Original Measure**	**My Measure**
Extrajudicial Killings	0	0: Have not occurred / Unreported	0
	1-49 50+	1: Practiced occasionally 2: Practiced frequently	1
Disappearances	0	0: Have not occurred / Unreported	0
	1-49 50+	1: Practiced occasionally 2: Practiced frequently	1
Political Imprisonment	0	0: None / None reported	0
	1 50+	1: Yes, but few 2: Yes, and many	1
Torture	0	0: Not practiced / Unreported	0
	1-49 50+	1: Practiced occasionally 2: Practiced frequently	1
Physical Integrity		0-8: Sum across subcategories	0-8

Note: I invert the scale from the original CIRI measures to align with my theory.

not the state practiced any amount of the state repressive types in question. The physical integrity score remains intact without any transformations beyond the inversion of the original scale.

For my analyses, each type of state repression is used to evaluate a different hypothesis. The first four hypotheses are related to specific types of state repression. The final hypothesis uses the physical integrity composite score to capture the variation across all state repressive activities. In each case, I lag the values of the state repression type by one year to capture my theory that the actions taken by states encourage particular terrorist tactical choices.

2.5.3 Control Variables: Country- and Organization-Level

Control variables are drawn from two different levels: country- and organization-level covariates. Country-level covariates are selected based on the ability of those variables to inform the level of state repression and the tactical choices for terrorist organizations. The country-level covariates include: Polity2 scores, GDP per capita, CINC scores, infant mortality rates, and population. I include the Polity2 score for the country in which the group is operating. Polity2 scores measure regimes from -10 (autocratic) to 10 (democratic) (Marshall, Gurr, and Jaggers, 2018). The relationship between terrorist activity and democracy is widely studied with mixed evidence supporting both increased and decreased terrorist activity associated with increasing levels of democratization (Eubank and Weinberg, 1994; Li, 2005; Chenoweth, 2013). The remaining country-level control variables are all connected to the state's wealth and propensity for violence. Each of these variables are logged. GDP per capita, infant morality rates, and population data are all drawn from the World Bank. The Composite Index of National Capabilities (CINC) scores serve as a measure of national military capabilities (Greig and Enterline, 2017).

As I am testing a theory that suggests that terrorist organizations are responding to the external operating environment, I need to account for organization-level characteristics in the models. One of the major organization-level characteristics necessary for this assessment is a measure of the resources available to an organization to execute attacks. Organizational age is one way to capture

a terrorist organization's resources to execute attacks. Horowitz, Perkoski, and Potter (2018) suggest that organizational age can account for both younger organizations' ability to be more flexible with their tactical choices as well as older organizations' more bountiful resources. Older terrorist organizations are less likely to adopt new tactics, such as suicide terrorism (Horowitz, 2010). Following, Vittori (2009); Horowitz (2010); Horowitz, Perkoski, and Potter (2018), I calculate organizational age by counting from the first year of activity for each group recorded in GTD to each subsequent year of activity. The age variable is calculated using the full GTD data, which dates back to 1970. I also include a squared value of organizational age to account for the potentially non-linear impact of organizational age on tactical decisions making (Asal and Rethemeyer, 2008).

Additional organization-level covariates are drawn from the Extended Data on Terrorist Groups (EDTG) dataset (Hou, Gaibulloev, and Sandler, 2020). A dummy variable for whether or not the group is led in a hierarchical manner is included to account for more formalized decision-making structures (Shapiro, 2013). The EDTG dataset includes four dummy variables for organization ideology: left, right, nationalist, and religious. I include left and nationalist ideologies into the model and allow religious groups to serve as the baseline category.[6] Organization ideology may determine which tactics groups are likely to use in the first place (Horowitz, 2010; Pape, 2003). Furthermore, accounting for organization ideology is a proxy for capturing the organization's goals and strategic aims. Finally, I include count variables for the number of allies and the number of rivals each organization is reported to have. The number of allies may provide an organization with additional resources to carry out different tactics than it would be able to without such connections (Tamm, 2016; Gade et al., 2019). I include the number of rivals for each organization to control for the alternative hypotheses about rival organization competition raised by Horowitz, Perkoski, and Potter (2018).[7]

[6]Terrorist organizations with a "right" ideology are dropped from the analyses due to a lack of other available covariates. Thus, when I include the right ideology into the models, all of the observations drop. The missingness of the other covariates for terrorist organizations with a "right" ideology may not be random. Before I submit this chapter to a peer-reviewed publication, I intend to evaluate this issue further. But for the purposes of this manuscript, the right ideological organizations are dropped.

[7]Horowitz, Perkoski, and Potter (2018, 147) hypothesize "As competition between organizations increases, tactical

One potential concern with adding organization-level covariates, beyond organizational age and age squared, is that the sample size will be reduced due to data availability issues. That is, only the organizations for which covariates exist will be included in the sample. While there are approximately 3,700 unique organizations included in the full GTD dataset, the EDTG data only provides covariates for approximately 500 terrorist organizations. And there may be concerns about the selection effects for organizations that are included in the EDTG dataset. The organizations included in the EDTG dataset may be included in a non-random manner because the organizations for which covariates have been collected are those which pose the greatest threat to state governments. While such concerns are valid, I argue that narrowing the sample to only consider persistently threatening organizations offers insights into the organizations that pose the greatest threat to the stability of state regimes.[8]

2.6 Research Design

To test my hypotheses, I conduct a series of analyses of the relationship between state repression and the tactical choices made by terrorist organizations. The first three hypotheses (H2a-H2c) concern expectations about specific tactical choices that should be made based on different types of state repression. In the final two hypotheses (H2d-H2e), I offer no specific expectations about how choices are made across the choice set, but rather focus on the number of choices that a terrorist organization makes. Because of the different nature of these two sets of hypotheses, I use the two different dependent variables (discussed above) to test my two different causal mechanisms.

2.6.1 Testing the Type of Tactical Selection

To test the first three hypotheses, the unit of analysis is organization-country-year. These hypotheses provide specific expectations about which choices should be selected from the tactical choice set. The dependent variables are binary indicators for a terrorist organization's use of assas-

diversity will increase." The authors find empirical support for the hypothesis.

[8]The limited sample should also help to address my discussant's recommendation to focus on some the largest and most resource-rich organizations that are driving the findings. The sample is limited to such organizations based on covariate coverage in EDTG.

sinations or hostage incidents in a given country within a year. The key independent variable for each model will be the specific type of state repression under consideration. For the first hypothesis, the state repression measure is a binary indicator of the state's use of extrajudicial killings. To test the second hypothesis, the state repression measure is a binary indicator of the state's use of disappearances. And for the third hypothesis, the state repression measure is a binary indicator of the state's use of political imprisonment. Each of the independent variables are lagged by one year, which aligns with the theory that terrorist organizations are responding to the repressive actions taken by the state. If the state repression variable is not lagged, this would suggest that both the state and the terrorist organization are making choices contemporaneously.

To model the relationships for the first three hypotheses, I use a logit model. In addition to the key independent variable in each model, I also include a lag of the dependent variable to account for the influence of past terrorist behavior on future terrorist behavior. Further, I include the country- and organization-level covariates discussed above as control variables. Additionally, I include annual fixed effects to account more completely for unobserved unit-level heterogeneity. And finally, I use standard errors clustered at the country-level to account for commonalities across time for observations at the country-level (Rogers, 1994). The clustered standard errors will be more robust, although I will lose some efficiency in the estimates.

2.6.2 Testing the Variety of Tactical Choices

To test the final two hypotheses in this chapter, the unit of analysis remains at the organization-country-year. This data structure aligns with the tests conducted by Horowitz, Perkoski, and Potter (2018). The dependent variable is a count of the number of tactics an organization uses in a country within a given year. To model this relationship, an OLS regression model is used. As a robustness check, I also run the analysis using a negative binomial modeling strategy. The key independent variables will be the specific type of state repression under consideration. For the fourth hypothesis, the state repression measure is a binary indicator of the state's use of torture.

And the final hypothesis uses the state measure of physical integrity, which is a count variable that captures the state's overall use of repression. The independent variables for the final two hypotheses will also be lagged by one year for the same reasons explained above. As with the previous models, I also include a lag of the dependent variable to account for the influence of past terrorist behavior on future terrorist behavior. I include the same country- and organization-level control variables. These models also include the annual fixed effects and cluster the standard errors at the country-level for the same reasons discussed above.

2.6.3 A Note on the Models and Samples

For each hypothesis, I analyze the results of eleven model-sample combinations. A full accounting of the model-sample combinations can be found in Table B.1. Further, Table B.2 captures the covariates that are included in each model. Both tables are available in Appendix B.

2.7 Results

2.7.1 Results for H2a

The first hypothesis (H2a) posits a relationship between the state's use of extrajudicial killings and a terrorist organization's decision to select the tactic of assassination. I argue that assassinations are a near-matching behavior in response to extrajudicial killings. The main results for the first hypothesis are represented in Figure 2.2.[9] Each panel shows the predictive margins of a state's use of extrajudicial killings using three different model-sample combinations. The results are shown using a 90% confidence interval to reflect the directional nature of the hypothesis. In all three panels, the horizontal axis represents whether or not a state practiced extrajudicial killings and the vertical axis shows the predicted probability that a terrorist organization selects assassinations in response. The three panels can be analyzed both independently and as a whole.

Figure 2.2, Panel (a) shows the results for the model that includes all of the country-level

[9]Table B.3 shows the complete logit model results for all eleven model-sample combinations and is available in Appendix B.

covariates as well as the Age and Age^2 covariates. The sample for the figure is any observations that include all of the necessary country-level covariates as well as Age and Age^2. The results align with hypothesis H2a. As expected, when a state practices extrajudicial killings in the previous time period, terrorist organizations are more likely to use assassinations in response. When a state does not practice extrajudicial killings, the probability that a terrorist organization will use assassinations is 8.4%. However, when a state uses extrajudicial killings in the previous period, the probability that a terrorist organization will use assassinations increases to 11.6%. Thus, when a state uses extrajudicial killings in the previous period, a terrorist organization is 3.2% more likely to use assassinations in response. The result is statistically significant at the 90% confidence level.

Figure 2.2: Predictive Margins of Extrajudicial Killings

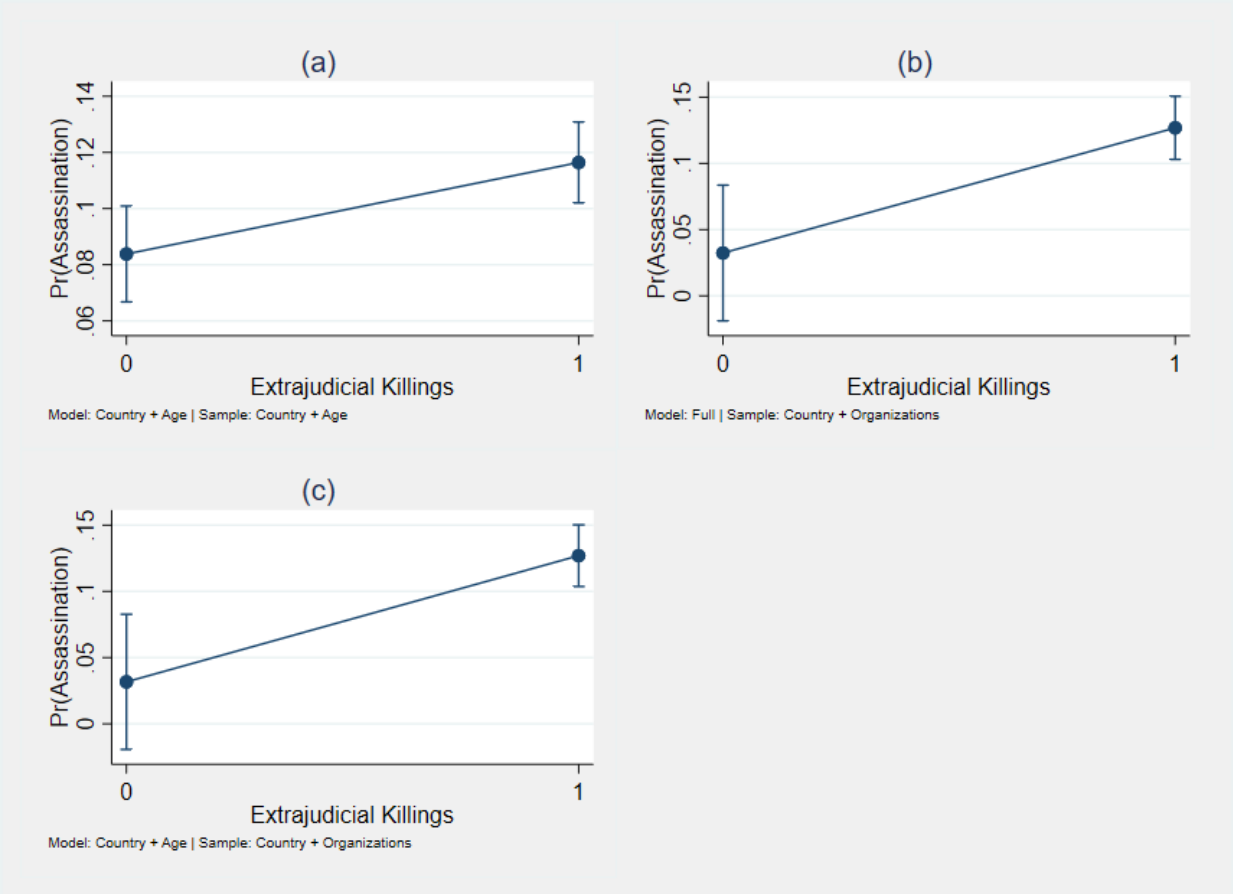


Figure 2.2, Panel (b) shows the results for the model that includes all covariates (country- and organization-level). The sample for the figure is any observations that include all of the necessary country- and organization-level covariates. The results using the restricted sample and fully specified model are similar to the results shown in Figure 2.2, Panel (a). As expected, when a state practices extrajudicial killings in the previous time period, terrorist organizations are more likely to use assassinations in response. When a state does not use extrajudicial killings, the probability that a terrorist organization will use assassinations is 3.2%. However, when a state uses extrajudicial killings in the previous period, the probability that a terrorist organization will use assassinations increases to 12.7%. Thus, when a state uses extrajudicial killings in the previous period, a terrorist organization is 9.5% more likely to use assassinations in response. The magnitude in the response is greater for the restricted sample and fully specified model. However, the result fails to reach significance at the 90% confidence level.

Figure 2.2, Panel (c) shows the results for the model that includes all of the country-level covariates as well as the Age and Age^2 covariates. The sample for the figure is any observations that include all of the necessary country- and organization-level covariates. Thus, the results presented in Figure 2.2, Panel (c) show the same model as Figure 2.2, Panel (a) and the same sample as Figure 2.2, Panel (b). Once again, the results align with the theoretical expectations for hypothesis H2a. As expected, when a state uses extrajudicial killings in the previous time period, terrorist organizations are more likely to use assassinations in response. When a state does not use extrajudicial killings, the probability that a terrorist organization will use assassinations is 3.2%. However, when a state uses extrajudicial killings in the previous period, the probability that a terrorist organization will use assassinations increases to 12.7%. Thus, when a state uses extrajudicial killings in the previous period, a terrorist organization is 9.5% more likely to use assassinations in response. The results are identical to those shown in Figure 2.2, Panel (b), with minor changes in the confidence intervals. While the results are in the expected direction, once again, the relationship fails to reach statistical significance at the 90% confidence level.

Figure 2.2 provides mixed support for hypothesis H2a. when a state practices extrajudicial killings in the previous time period, terrorist organizations are more likely to use assassinations in response. However, the two models that use a restricted sample fail to reach statistical significance at the 90% confidence level. One plausible explanation for the failure to reach statistical significance using the restricted sample is the limited size of the sample. As organization-level covariates can be collected on additional terrorist organizations, the analysis can be updated.

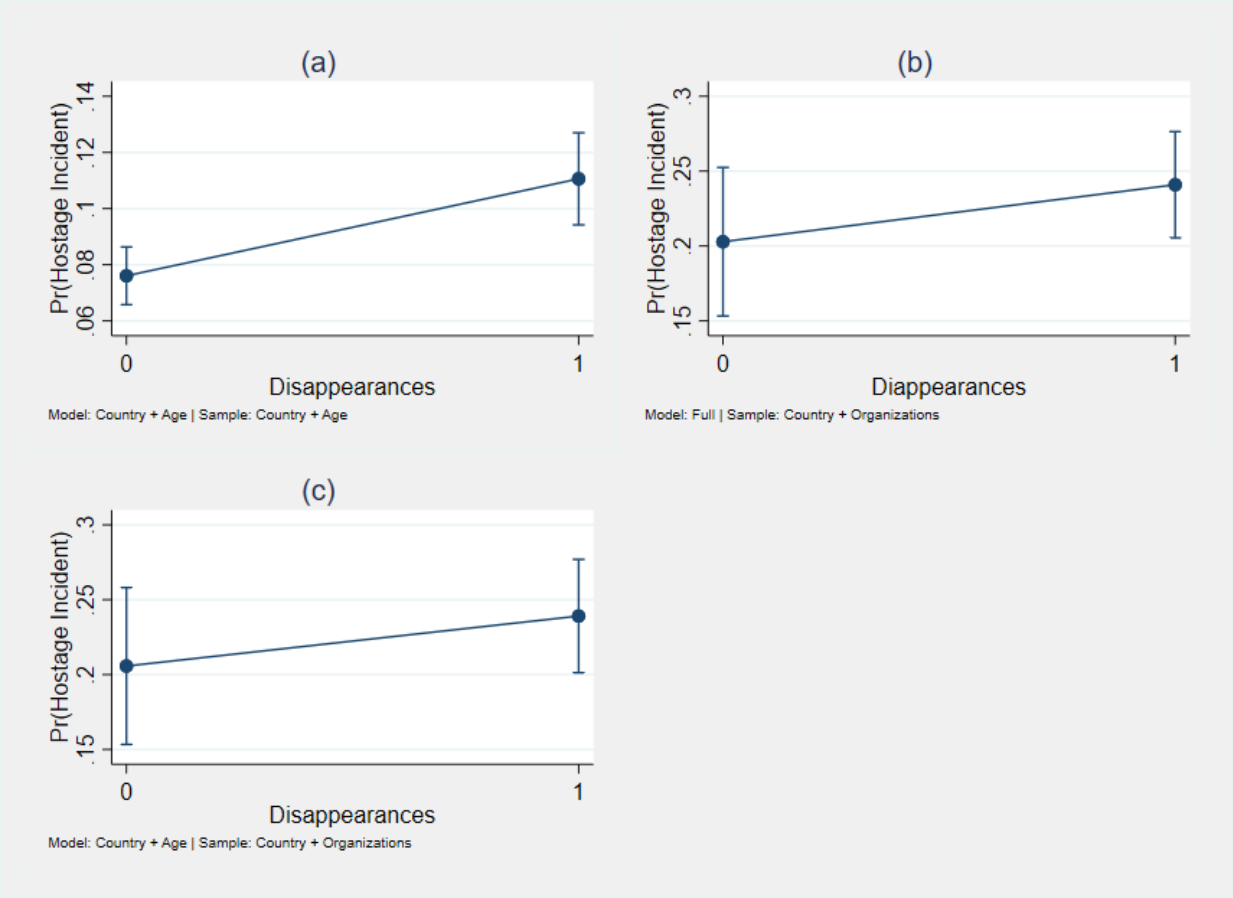
2.7.2 Results for H2b

The second hypothesis (H2b) posits a relationship between the state's use of disappearances and a terrorist organization's decision to select the tactic of hostage incidents. I argue that hostage incidents are a near-matching behavior in response to disappearances. The main results for the second hypothesis are represented in Figure 2.3.[10] Each panel shows the predictive margins of a state's use of disappearances using three different model-sample combinations. The results are shown using a 90% confidence interval to reflect the directional nature of the hypothesis. In all three panels, the horizontal axis represents whether or not a state practiced disappearances and the vertical axis shows the predicted probability that a terrorist organization selects hostage incidents in response. The three panels can be analyzed both independently and as a whole.

Figure 2.3, Panel (a) shows the results for the model that includes all of the country-level covariates as well as the Age and Age^2 covariates. The sample for the figure is any observations that include all of the necessary country-level covariates as well as Age and Age^2. The results align with hypothesis H2b. As expected, when a state uses disappearances in the previous time period, terrorist organizations are more likely to use hostage incidents in response. When a state does not use disappearances, the probability that a terrorist organization will use hostage incidents is 7.6%. However, when a state uses disappearances in the previous period, the probability that a terrorist organization will use hostage incidents increases to 11.1%. Thus, when a state uses

[10]Table B.4 shows the complete logit model results for all eleven model-sample combinations and is available in Appendix B.

Figure 2.3: Predictive Margins of Disappearances



disappearances in the previous period, a terrorist organization is 3.5% more likely to use hostage incidents in response. The result is statistically significant at the 90% confidence level.

Figure 2.3, Panel (b) shows the results for the model that includes all covariates (country- and organization-level). The sample for the figure is any observations that include all of the necessary country- and organization-level covariates. As expected, when a state uses disappearances in the previous time period, terrorist organizations are more likely to use hostage incidents in response. When a state does not use disappearances, the probability that a terrorist organization will use hostage incidents is 20.3%. However, when a state uses disappearances in the previous period, the probability that a terrorist organization will use hostage incidents increases to 24.1%. Thus, when a

state uses disappearances in the previous period, a terrorist organization is 3.8% more likely to use hostage incidents in response. However, the result fails to reach significance at the 90% confidence level. The failure to reach statistical significance would suggest that organizations in the restricted sample (those with complete country- and organization-level covariates) are not as sensitive to the state's use of disappearances as a repressive action.

Figure 2.3, Panel (c) shows the results for the model that includes all of the country-level covariates as well as the Age and Age^2 covariates. The sample for the figure is any observations that include all of the necessary country- and organization-level covariates. Thus, the results presented in Figure 2.3, Panel (c) show the same model as Figure 2.3, Panel (a) and the same sample as Figure 2.3, Panel (b). Once again, the results align with the theoretical expectations for hypothesis H2b. As expected, when a state uses disappearances in the previous time period, terrorist organizations are more likely to use hostage incidents in response. When a state does not use disappearances, the probability that a terrorist organization will use hostage incidents is 20.6%. However, when a state uses disappearances in the previous period, the probability that a terrorist organization will use hostage incidents increases to 23.9%. Thus, when a state uses disappearances in the previous period, a terrorist organization is 3.3% more likely to use hostage incidents in response. While the results are in the expected direction, once again, the relationship fails to reach statistical significance at the 90% confidence level.

Figure 2.3 provides mixed support for hypothesis H2b. When a state uses disappearances in the previous time period, terrorist organizations are more likely to use hostage incidents in response. However, the two models that use a restricted sample fail to reach statistical significance at the 90% confidence level. One plausible, although weak, explanation for the failure to reach statistical significance could be the limited sample size. Due to the availability of covariates at the organization-level, both Panel (a) and (b) only include 720 observations.

Another plausible, and perhaps more promising, explanation for the failure to reach statistical significance using the restricted sample is that there may be a fundamental difference between those

organizations in the restricted sample and those in the unrestricted sample (i.e., country covariates, Age, and Age^2). An examination of the vertical axes across each panel provides an unexpected insight. In general, organizations in the restricted sample are more likely use hostage incidents, regardless of the state's use of disappearances, than organizations in the unrestricted sample. The result may indicate that the well-known terrorist organizations with available covariates in the restricted sample use hostage incidents more frequently than the less-well-established counterparts. Further, the statistically significant result recovered from Figure 2.3, Panel (a) may suggest that less well-established organizations start using hostage incidents in response to state repression and that the tactic is particularly "sticky" as terrorist organizations become more well-established. The results for this hypothesis are worthy of further study and should be subjected to additional theorizing.

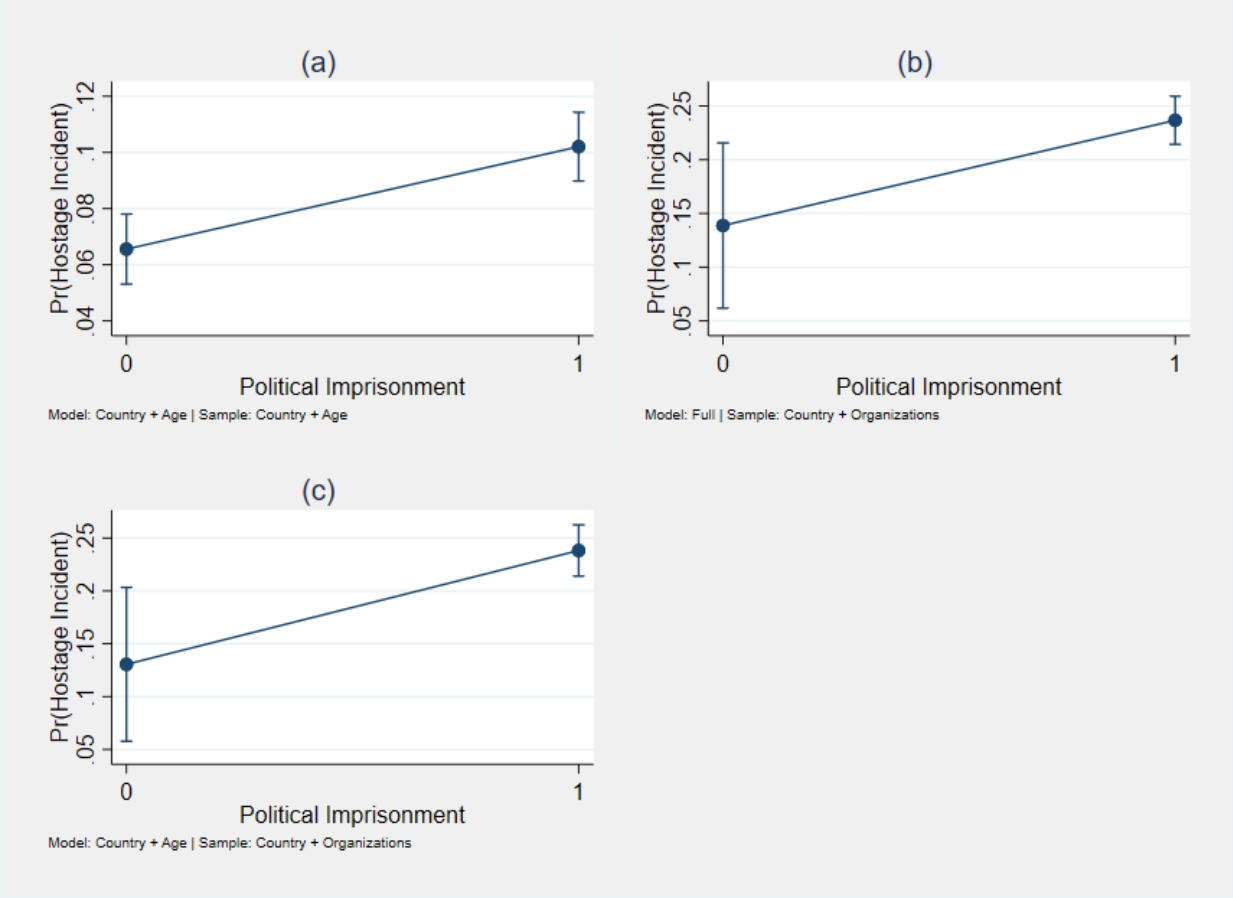
2.7.3 Results for H2c

The third hypothesis (H2c) posits a relationship between the state's use of political imprisonment and a terrorist organization's decision to select the tactic of hostage incidents. I argue that hostage incidents are a near-matching behavior in response to political imprisonment. The main results for the third hypothesis are represented in Figure 2.4.[11] Each panel shows the predictive margins of a state's use of political imprisonment using three different model-sample combinations. The results are shown using a 90% confidence interval to reflect the directional nature of the hypothesis. In all three panels, the horizontal axis represents whether or not a state practiced political imprisonment and the vertical axis shows the predicted probability that a terrorist organization selects hostage incidents in response. The three panels can be analyzed both independently and as a whole.

Figure 2.4, Panel (a) shows the results for the model that includes all of the country-level covariates as well as the Age and Age^2 covariates. The sample for the figure is any observations

[11]Table B.5 shows the complete logit model results for all eleven model-sample combinations and is available in Appendix B.

Figure 2.4: Predictive Margins of Political Imprisonment



that include all of the necessary country-level covariates as well as Age and Age^2. The results align with hypothesis H2c. As expected, when a state practices political imprisonment in the previous time period, terrorist organizations are more likely to use hostage incidents in response. When a state does not uses political imprisonment, the probability that a terrorist organization will use hostage incidents is 6.6%. However, when a state uses political imprisonment in the previous period, the probability that a terrorist organization will use hostage incidents increases to 10.2%. Thus, when a state uses political imprisonment in the previous period, a terrorist organization is 3.6% more likely to use hostage incidents in response. The result is statistically significant at the 90% confidence level.

Figure 2.4, Panel (b) shows the results for the model that includes all covariates (country- and organization-level). The sample for the figure is any observations that include all of the necessary country- and organization-level covariates. As expected, when a state uses political imprisonment in the previous time period, terrorist organizations are more likely to use hostage incidents in response. When a state does not use political imprisonment, the probability that a terrorist organization will use hostage incidents is 13.9%. However, when a state uses political imprisonment in the previous period, the probability that a terrorist organization will use hostage incidents increases to 23.7%. Thus, when a state uses political imprisonment in the previous period, a terrorist organization is 9.8% more likely to use hostage incidents in response. The result is statistically significant at the 90% confidence interval.

Figure 2.4, Panel (c) shows the results for the model that includes all of the country-level covariates as well as the Age and Age^2 covariates. The sample for the figure is any observations that include all of the necessary country- and organization-level covariates. Thus, the results presented in Figure 2.4, Panel (c) show the same model as Figure 2.4, Panel (a) and the same sample as Figure 2.4, Panel (b). Once again, the results align with the theoretical expectations for hypothesis H2c. As expected, when a state practices political imprisonment in the previous time period, terrorist organizations are more likely to use hostage incidents in response. When a state does not use political imprisonment, the probability that a terrorist organization will use hostage incidents is 13.1%. However, when a state uses political imprisonment in the previous period, the probability that a terrorist organization will use hostage incidents increases to 23.8%. Thus, when a state uses political imprisonment in the previous period, a terrorist organization is 10.7% more likely to use hostage incidents in response. And once again, the result is statistically significant at the 90% confidence interval.

Figure 2.4 provides support for hypothesis H2c. When a state uses political imprisonment in the previous time period, terrorist organizations are more likely to use hostage incidents in response. And all three models reach statistical significance at the 90% confidence level. Similar

to the results shown in Figure 2.3, an examination of the vertical axes across each panel provides an additional unexpected insight. In general, organizations in the restricted sample are more likely use hostage incidents, regardless of the state's use of political imprisonment, than organizations in the unrestricted sample. The result may indicate that the well-known terrorist organizations with covariates in the restricted sample use hostage incidents more frequently than the less-well-established counterparts. Further, the statistically significant result recovered from Figure 2.4, Panel (a) may suggest that less well-established organizations start using hostage incidents in response to state repression and that the tactic is particularly "sticky" as terrorist organizations become more well-established. As with the similar results for hypothesis H1b, the results for this hypothesis are worthy of further study and should be subjected to additional theorizing.

2.7.4 Results for H2d

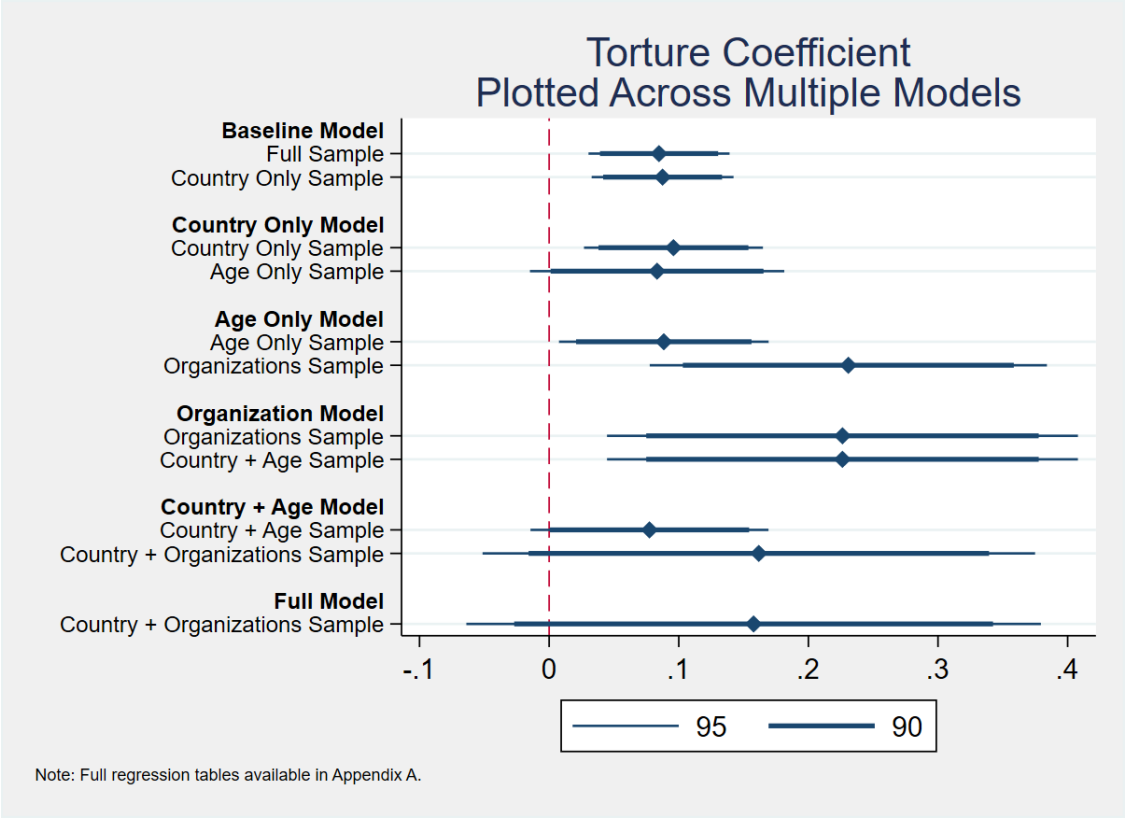
The fourth hypothesis (H2d) posits a relationship between the state's use of torture and a terrorist organization's decision to increase the number of tactics used annually. I argue that in response to torture, terrorist organizations increase the number of tactics used annually in an attempt to overwhelm the state by making their choices less predictable.

The main results for the fourth hypothesis are represented in Figure 2.5.[12] The figure is a coefficient plot for the covariate of interest, which is the state's use of torture (lagged by one year). In the resulting figure, I plot the coefficient value using all eleven model-sample combinations. The results are shown with both a 90% and 95% confidence interval. The 90% confidence interval reflects the directional nature of the hypothesis. The horizontal axis represents the value of the torture coefficient and the vertical axis indicates the model-sample combination from which the coefficient is drawn.

The results from all eleven model-sample combinations show mixed support for Hypothesis H2d. In alignment with my expectation, when the state uses torture in the previous year, terrorist

[12]Table B.6 shows the complete OLS regression model results for all eleven model-sample combinations and is available in Appendix B.

Figure 2.5: Torture Coefficient Plot



organizations are more likely to increase the number of tactics in their repertoire. However, several models fail to reach statistical significance at the 90% confidence level. In particular, the final three coefficients on the plot, all fail to reach statistical significance. These three models are the model-sample combinations considered for the first three hypotheses.

As a robustness check, I ran the same model-sample combinations using a negative binomial modeling strategy.[13] The negative binomial modeling strategy accounts for the dependent variable being measured as a count variable. The results for the robustness check also show mixed evidence in support of Hypothesis H2d.

[13]Table B.7 shows the complete table of results and Figure B.1 reflects the resulting coefficient plot for the torture coefficients. Both are available in Appendix B.

2.7.5 Results for H2e

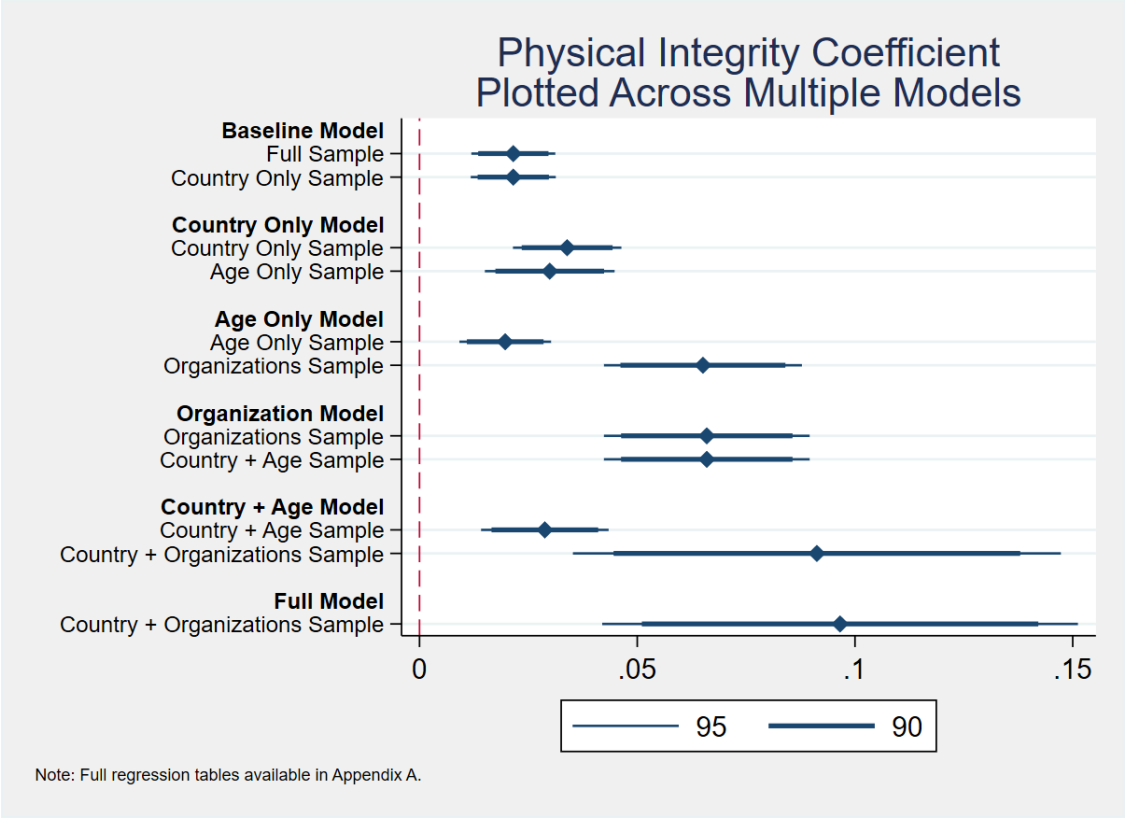
The final hypothesis (H2e) posits a relationship between the state's overall use of repressive activity (i.e., physical integrity score) and a terrorist organization's decision to increase the number of tactics used annually. I argue that in response to the overall use of repressive activity, terrorist organizations increase the number of tactics used annually in an attempt to overwhelm the state by making their choices less predictable. As a reminder, this hypothesis is a replication of the work done by Horowitz, Perkoski, and Potter (2018). However, unlike Horowitz, Perkoski, and Potter (2018), I include organization-country-year observations in which the organization did not execute any attacks, where applicable.

The main results for the final hypothesis are represented in Figure 2.6.[14] The figure is a coefficient plot for the covariate of interest, which is the state's use of overall use of repressive activity (lagged by one year). In the resulting figure, I plot the coefficient value using all eleven model-sample combinations. The results are shown with both a 90% and 95% confidence interval. The 90% confidence interval reflects the directional nature of the hypothesis. The horizontal axis represents the value of the physical integrity coefficient and the vertical axis indicates the model-sample combination from which the coefficient is drawn.

The results from all eleven model-sample combinations show strong support for Hypothesis H2e. In alignment with my expectation, as the state's level of overall repressive activity increases in the previous year, terrorist organizations are more likely to increase the number of tactics in their repertoire. The results are robust at the 90% and 95% confidence levels across all eleven model-sample combinations. The models using the country- and organization-level covariates (i.e., the most restricted sample) are particularly sensitive to changes in the state's overall repressive activities. This result may suggest that organizations for which organization-level covariates are available are different from the overall sample of organizations, for the same reasons discussed

[14]Table B.8 shows the complete OLS regression model results for all eleven model-sample combinations and is available in Appendix B.

Figure 2.6: Physical Integrity Coefficient Plot



above.

As a robustness check, I ran the same model-sample combinations using a negative binomial modeling strategy.[15] The negative binomial modeling strategy accounts for the dependent variable being measured as a count variable. The results for the robustness check also show strong support of Hypothesis H2e.

2.8 Addressing Endogeneity

Before concluding the discussion, it is important to note the potential endogeneity between state repressive activities and terrorist tactical choices. The main threat to inference with this project pertains to the causal direction of the theory. The theory that I outline shows the causal

[15]Table B.9 shows the complete table of results and Figure B.2 reflects the resulting coefficient plot for the torture coefficients. Both are available in Appendix B.

arrow moving from state repressive activities to terrorist tactical choice. However, an alternative, plausible explanation is that the state selects its repressive activities in response to terrorist tactical choices. Thus, the terrorist organization would take the first action and the state would respond to that action with a (near-)matching behavior or a behavior intended to diminish the open revolutionary warfare activity.

In the preceding analysis and discussion, I offered one solution to alleviate concerns of endogeneity by lagging the key independent variable of interest in each of the models. Lagging the key independent variable in each model aligns with the theory that the state's repressive activities encourage a particular response from terrorist organizations. However, this method does not fully account for the concern regarding the causal direction of the theory. To further address this issue, I also analyze the data for the first three hypotheses using a Cox Proportional Hazards Model with time varying covariates (TVCs).

The dependent variables used to test hypotheses H2a-H2c are modified to capture "failure." In this case, failure represents when a terrorist organization starts using assassinations (as a robustness check for hypothesis H2a) or hostage incidents (as robustness checks for hypotheses H2b and H2c). As a reminder, the data are organized at the organization-country-year level. Therefore, I am interested in observing when an organization begins using assassinations or hostage incidents as a response to a particular state's use of repressive actions. Substantively, the data are coded such that for each organization-country pair, the organization takes on a value of 0 until it uses the tactic in question for the first time. The organization takes on a value of 1 for the first time that it uses the tactic. Thereafter, the organization is recorded as a 0. Some organization-country pairs will be censored from the data as the organization will never fail, meaning that the organization in question may never use an assassination or hostage incident. These observations remain in the data, but the dependent variable remains constant at 0.

As with the original modeling specification, I lag the key independent variable to test the theory that the state's repressive activities influence the tactical selection of a terrorist organization. The

TVCs for the models are the country-level covariates, which include the Polity2 score, logged GDP per capita, logged CINC score, logged infant mortality rate, and the logged population. In addition, from the organization-level covariates, age and age-squared are also identified as TVCs. When appropriate, all other organization-level covariates are included as time independent variables. The time independent variables in the model include terrorist organization hierarchical structure, the number of allies, the number of rivals, whether the organization is leftist, and whether the organization is nationalist. Box-Steffensmeier and Jones (2004, 114-116) recommend the use of robust standard errors when modeling relationships that include TVCs as TVCs often allow multiple records for each observation. Thus, using robust standard errors helps to account for the lack of independence among the observations (Box-Steffensmeier and Jones, 2004).

For each hypothesis under consideration, I analyze four Cox Proportional Hazard Models. The first model only includes the lagged independent variable. This model is the baseline and the sample is full. The second model reflects the the lagged independent variable with the country-level and age covariates. The sample includes all those observations including the country-level and age covariates. In the third model, I include all country-level and organization-level covariates, which is the fully specified model. The sample for the third model are all observations in which we have country- and organization-level covariates. Finally, in the fourth model I return to the country-age model, which is the second modeling strategy. However, for the fourth test, I use the sample from model three (i.e., only those observations in which we have complete information for the country- and organization-level covariates). To aid the reader, I include a note for each model and sample at the bottom of each table.

In Table 2.3, I present the results for the Cox Proportional Hazard Models as a robustness check for hypothesis H2a. The results reflect the hazard rates. A larger hazard rate indicates that the event is more likely to happen sooner and a smaller hazard rate is less likely to occur soon. As such, hazard ratios greater than 1 imply that the likelihood (or hazard) of assassination increases as the value of the independent variable (extrajudicial killings) increases, thus resulting in a greater

likelihood of failure (shorter time until the organization uses assassinations). Hazard ratios smaller than 1, in turn, imply that the likelihood (or hazard) of assassination termination decreases as the value of the independent variable increases, thus resulting in a smaller likelihood of failure (longer time until the organization uses assassinations). In contrast, hazard ratios close to 1—as in the case of the results for the Polity2 scores and infant mortality rates—imply that the hazard rate is essentially invariant to changes in the independent variable, i.e. the coefficient has no effect on increasing (or decreasing) the hazard of an organization beginning to use assassinations.

Across the four model-sample specifications, the key independent variable reflects a value greater than 1, which indicates that the terrorist organizations are more likely to beginning using assassinations more quickly when the state previously used extrajudicial killings than organizations that do not face the same repressive activity. However, the result is only robust for the first and second model-sample specifications. The models which include the full sample (i.e., all country- and organization-level covariates) fail to reach statistical significance. The results from the logit model are not robust for the full sample. However, the discussion of the differences between the samples from above may play a role in the results presented in Table 2.3 as well. As future research continues to refine and theorize in the differences across sub-samples, it is worthwhile to return to these results.

Table 2.4 reflects the results for the Cox Proportional Hazard Models as a robustness check for hypothesis H2b. The results reflect the hazard rates. And the results will be interpreted in the same manner as above with reference to a value of 1. Across the four model-sample specifications, the key independent variable reflects a value greater than 1, which indicates that the terrorist organizations are more likely to beginning using hostage incidents more quickly when the state previously used disappearances than organizations that do not face the same repressive activity. However, the result is only robust for the first and second model-sample specifications. Once again, the models which include the full sample (i.e., all country- and organization-level covariates) fail to reach statistical significance. The results from the logit model are not robust for the full sample. However,

Table 2.3: Cox Model: Hazard Ratios for H2a

	(1)	(2)	(3)	(4)
Extrajudicial Killings$_{t-1}$	1.81***	1.40*	1.92	1.82
	(0.28)	(0.26)	(2.01)	(1.91)
Country Covariates:				
Polity2		1.00	1.00***	1.00***
		(0.00)	(0.00)	(0.00)
GDPPC (log)		1.00	1.02	1.02
		(0.01)	(0.02)	(0.02)
CINC (log)		1.01	1.03	1.03
		(0.01)	(0.02)	(0.02)
Infant Mortality (log)		1.02	1.06	1.06**
		(0.02)	(0.04)	(0.03)
Population (log)		0.99	0.99	0.99
		(0.01)	(0.02)	(0.01)
		(0.26)	(2.01)	(1.91)
Organization Covariates:				
Age		0.99***	0.99**	0.99***
		(0.00)	(0.00)	(0.00)
Age^2		1.00***	1.00*	1.00***
		(0.00)	(0.00)	(0.00)
Hierarchical Structure			2.52	
			(3.09)	
# of Allies			1.03	
			(0.07)	
# of Rivals			0.86	
			(0.50)	
Left			1.43	
			(1.88)	
Nationalist			1.25	
			(0.95)	
Observations	5018	4072	325	325
Model:	Baseline	Country + Age	Full	Country + Age
Sample:	Full	Country + Age	Country + Org.	Country + Org.

Note: *p<0.1; **p<0.05; ***p<0.01. Robust standard errors.

the discussion of the differences between the samples from above may play a role in the results presented in Table 2.4 as well. As future research continues to refine and theorize in the differences across sub-samples, it is worthwhile to return to these results.

Table 2.5 reflects the results for the Cox Proportional Hazard Models as a robustness check for hypothesis H2c. The results reflect the hazard rates. And the results will be interpreted in the same manner as above with reference to a value of 1. Across the four model-sample specifications, the key independent variable reflects a value greater than 1, which indicates that the terrorist organizations are more likely to beginning using hostage incidents more quickly when the state previously used political imprisonment than organizations that do not face the same repressive activity. However, the result is only robust for the first and second model-sample specifications. Once again, the models which include the full sample (i.e., all country- and organization-level covariates) fail to reach statistical significance. And, in this case, the coefficients are well-above the baseline assessment score of 1. The results from the logit model are not robust for the full sample. However, the discussion of the differences between the samples from above may play a role in the results presented in Table 2.5 as well. As future research continues to refine and theorize in the differences across sub-samples, it is worthwhile to return to these results.

I used two different methods to overcome the concerns of endogeneity. In the main models, I lagged the key independent variable of interest. My decision aligns closely with the theory. The results provide evidence that the theory may capture the interaction between state repressive activities and terrorist tactical choices. To further the analysis, I provide the results from a Cox Proportional Hazards model. Some of the results bolster the findings from the main analysis. The results from the hazards models do not support the findings for our restricted sample (i.e., the sample that includes country- and organization-level covariates). While neither method independently nor the two methods together are fully able to satiate concerns of endogeneity, the relative consistency across both methods serves as a sensitivity analysis for the main models. Young and Findley (2011) also use a second modeling strategy as a sensitivity analysis to assess concerns of

Table 2.4: Cox Model: Hazard Ratios for H2b

	(1)	(2)	(3)	(4)
Disappearances$_{t-1}$	2.06***	1.66***	1.74	1.59
	(0.28)	(0.30)	(0.80)	(0.81)
Country Covariates:				
Polity2		1.00	1.00	1.00
		(0.00)	(0.00)	(0.00)
GDPPC (log)		1.01	0.97	0.98
		(0.01)	(0.02)	(0.02)
CINC (log)		0.98	0.96**	0.97
		(0.01)	(0.02)	(0.02)
Infant Mortality (log)		1.02*	0.96*	0.97
		(0.01)	(0.02)	(0.02)
Population (log)		1.02	1.04	1.03
		(0.02)	(0.03)	(0.03)
Organization Covariates:				
Age		0.99***	1.00	1.00
		(0.00)	(0.00)	(0.00)
Age^2		1.00***	1.00	1.00
		(0.00)	(0.00)	(0.00)
Hierarchical Structure			1.38	
			(1.07)	
# of Allies			1.05	
			(0.04)	
# of Rivals			0.54	
			(0.27)	
Left			0.92	
			(0.50)	
Nationalist			1.87	
			(0.97)	
Observations	7455	4832	315	315
Model:	Baseline	Country + Age	Full	Country + Age
Sample:	Full	Country + Age	Country + Org.	Country + Org.

Note: *p<0.1; **p<0.05; ***p<0.01. Robust standard errors.

Table 2.5: Cox Model: Hazard Ratios for H2c

	(1)	(2)	(3)	(4)
Political Imprisonment$_{t-1}$	2.10***	1.70**	3.71	3.80
	(0.41)	(0.44)	(3.68)	(4.01)
Country Covariates:				
Polity2		1.00	1.00	1.00
		(0.00)	(0.00)	(0.00)
GDPPC (log)		1.01	0.98	0.98
		(0.01)	(0.02)	(0.02)
CINC (log)		0.98*	0.95**	0.96**
		(0.01)	(0.02)	(0.02)
Infant Mortality (log)		1.02	0.97	0.97
		(0.01)	(0.02)	(0.02)
Population (log)		1.02	1.05**	1.04*
		(0.02)	(0.02)	(0.02)
Organization Covariates:				
Age		0.99***	1.00	1.00
		(0.00)	(0.00)	(0.00)
Age^2		1.00***	1.00	1.00
		(0.00)	(0.00)	(0.00)
Hierarchical Structure			1.46	
			(1.10)	
# of Allies			1.03	
			(0.04)	
# of Rivals			0.50	
			(0.25)	
Left			1.04	
			(0.56)	
Nationalist			1.89	
			(0.92)	
Observations	7451	4828	315	315
Model:	Baseline	Country + Age	Full	Country + Age
Sample:	Full	Country + Age	Country + Org.	Country + Org.

Note: *p<0.1; **p<0.05; ***p<0.01. Robust standard errors.

endogeneity in their theory. The authors argue that consistency across several modeling strategies alleviates concerns of endogeneity in their study.

2.9 Conclusion

I argue that terrorist organizations are responsive to state repression actions. Terrorist organizations should only switch tactical choices and increase the number of types of tactical choices they consider when there is increased risk of failure in the external environment. One such external pressure is state repression activities. My argument is built on a rational choice model. Because switching commonly used tactics and increasing the number of tactical choices is a costly process, terrorist organizations should find ways to reduce the sunk costs associated with the search process. One such way to reduce the costs associated with the search process is to employ a method of matching the state's actions. I expected that individual choices about the use of assassinations should be linked to the use of extrajudicial killings, for which I found mixed empirical support. Additionally, I argued that the use of hostage incidents should be linked to disappearances and political imprisonment. The results for this hypothesis are mixed, which suggests that further refinement is necessary.

Further, I argue that terrorist organizations should increase the number of types of tactics used under two conditions: (1) increasing use of torture and (2) overall increases in actions that violate physical integrity (i.e., a composite measure of the state's overall repressive activities). For the first condition, I find mixed evidence. The empirical results for the second condition provide strong support.

From a theoretical perspective, one of the main contributions of this chapter is that I consider the possibility that terrorist organizations are matching the behavior of states rather than of other terrorist organizations. Additionally, the theory presented provides explanations for both how choices are made across the available options as well as the variety of choices that is made by a group in a given time frame. Most other work in this literature tends to focus on one as-

pect or the other without considering how each captures a different part of the decision-making process. Finally, from both a theoretical and empirical standpoint, this chapter contributes to our understanding of how terrorist organizations make decisions in the face of different types of state repression by using the disaggregated measures of repression.

I expect that researchers will continue to develop explanations for how terrorist organizations make their tactical decisions. As the theory and empirical evidence in this chapter shows, the tactical decision making process is complex and dynamic. Improvements to data and modeling strategies will allow researchers to test their theories in a more robust manner in the future. Furthermore, by modeling how terrorist organizations make their decisions, as well as the factors that drive those decision-making processes, researchers will be able to speak more directly to policy-makers who seek to combat terrorist activities.

3. AFFILIATES AND ALLIES

> "Turning now to comparison across armed organizations, we can ask is the pattern of violence by two organizations identical? Similar? As we have seen this has been a, if not *the*, crucial theoretical question for more than a decade."
>
> —GUTIÉRREZ-SANÍN AND WOOD (2017, 29)

3.1 Introduction

To what extent do parent organizations shape the tactical repertoire of affiliate and allied organizations? And what role do affiliate and allied terrorist organizations play in the professionalization of the occupation. In this chapter, I shift focus from how state repressive actions shape a terrorist organization's tactic repertoire to how other terrorist organizations shape the tactical repertoire. More specifically, I explore how the professionalization process impacts tactical decision making. The professionalization of an occupation is an inherently social process as individuals who practice the occupation monitor one another for adherence to the common standards of the profession. Because the process is social, we need to capture the relationships across those individuals who engage with the occupation. Traditional applications in the professionalization literature trace the origins of medicine or law or other well-defined categories (See for example: Abbott, 2014; Richardson, 1987; Janowitz, 2017). A hallmark feature of these well-established professions is the emergence of an external peer reference group that establishes the standards of the profession and monitors the actions of those involved in the occupation to ensure compliance with those standards.

One of the defining features of a profession is formal, legal recognition of the occupation (Abbott, 2014; Wilensky, 1964). The formal, legal recognition of a profession is the jurisdiction. While many standard professions are able to attain formal, legal recognition, it is unlikely that formal, legal recognition will ever be provided to those engaged in illicit activities. Thus, when thinking about the application of the professionalization literature to terrorist organizations, we

will have to make an adjustment. The main adjustment is that instead of relying on formal, legal recognition, terrorist organizations define jurisdiction among themselves in the "world" of illicit affairs.

In this chapter, I explore the conditions under which terrorist organizations, choose to expand their tactical choice sets, as well as the conditions that lead to specific choices on tactical choices being made. I argue that terrorist organizations use specific tactics and expand the number of tactics employed in response to professional pressure from other organizations, specifically the pressure applied by a parent organization. In this dissertation, parent organizations act as the external reference group in the professionalization process. Based on a model of normative isomorphism, I argue that the tactical repertoire of an affiliate or terrorist organization will match (or nearly match) the tactical repertoire of the parent organization. Further, I argue that the tactical repertoire of an affiliate will more closely align with the parent's tactical repertoire than an ally's will.

As in Chapter 2, broadly speaking, for Chapters 3 and 4, I focus on the question of how decisions are made in political organizations based on external pressures. Questions of this nature are the cornerstone of research for political science and the social sciences more generally. The argument presented in this chapter challenges the mimetic isomorphism explanations in the extant literature. Using insights from sociology, public policy, and contentious politics, I offer an argument about how we should expect terrorist organizations to respond to normative pressures exerted by external reference groups.

Through the analysis offered in this chapter and the next, I contribute to a number of academic discussions. First, I contribute to the well-established professionalization literature with the novel theoretical argument that the occupation of terrorism is in the midst of the professionalization process. While we have evidence that individual terrorists or terrorists act professionally (See for example: Weinstein, 2006; Shapiro, 2013; Finnegan, 2019), I take the argument to the next step to ask how those professional behaviors shape the occupation as a whole. Second, I contribute to the literature that examines how terrorist organizations make decisions. Rather than examining

terrorist tactics one at a time, I consider the range of violent actions that a terrorist organization regularly employs in order to achieve its political goals. Looking across the available tactics aligns the research more closely with observable reality. And finally, in this chapter, I posit that while the existence of a relationship between two terrorist organizations is important that the specific actors involved is more critical to our understanding of how terrorist organizations make decisions. As Horowitz and Potter (2014, 200-201) argue, "Merely examining why a terrorist organization employs a particular tactic or pursues a given strategy without considering whom that group is linked to risks missing important information that helps explain group behavior."

3.2 The Role of the Parent Organization

In Chapters 3 and 4, I argue that the parent organizations serve as an external peer reference group. One of the hallmarks of a professionalized occupation is an external peer reference group (Wilensky, 1964; Teodoro, 2011). For example, in the American legal field, the American Bar Association serves as the external peer reference group. Terrorist organizations have no such formalized external peer references groups. However, the external peer reference groups do exist in the form of well-established parent terrorist organizations. As I described in the Chapter 1, parent terrorist organizations are those organizations that maintain at least one of the following attachments: (1) an affiliate, (2) an ally, or (3) a splinter. In this chapter, I focus solely on the relationship between the parent organization and its affiliates and allies. The question of the parent-splinter relationship is taken up in Chapter 3.

3.2.1 Knowledge Sharing Through Training

Affiliate and allied organizations gain access to resources, knowledge, and the parent's reputation by aligning themselves with a parent (Horowitz and Potter, 2014; Mendelsohn, 2015). Sharing of information, knowledge, and professional ethos is also an important part of professionalization (Wilensky, 1964; Abbott, 2014). As more individuals devote their resources and energy to an occupation full-time, Wilensky's (1964) process of professionalization suggests that we should see

the emergence of formalized training programs. The training programs described by Wilensky (1964) are the equivalent of the formal education described by Wilson (1989). March and Simon (1958, 70) also explain that "Professionalization implies specific formal training and thus substantial homogeneity of background." When these authors describe how training programs relate to professionalization, they are mainly concerned with formal, classroom education. In the example of lawyers, training occurs through attendance of law school (initially) and follow-up training (continually).

There is not a graduate or professional school equivalent for terrorist organizations. However, many terrorist organizations maintain training programs and some organizations train together. Forest (2006) divides terrorist training into two separate programs: motivational and operational. Motivational learning is related to ideological, social, and psychological factors associated with particular terrorist activities. One primary example of motivational learning is the ideological spread of religious doctrine through extremist religious organizations (Forest, 2006). Training programs related to operational learning objectives are more common. Operational learning is where individuals learn how to execute attacks, which has direct implications for the tactics that we can expect to populate an organization's tactical repertoire.

al Qaeda is one of the most prominent terrorist organizations that offers training not only to its recruits, but also to the recruits of other organizations to include its affiliates and allies (Gunaratna, 2006; Mendelsohn, 2015). While al Qaeda may be one of the most prominent terrorist organizations that provide training, Forest (2006) offers an overview of many other terrorist organizations with operational training programs. Olcott and Babajanov (2003) provide a detailed account of ten notebooks that were seized from young jihadist recruits. The notebooks included both motivation and operational training information. At this point, most of the evidence of terrorist training programs is anecdotal. But the fact that individual organizations appear to be developing training programs and that some organizations train with others suggests that terrorist organizations are moving along the path to achieving the second stage in Wilensky's (1964) process of professional-

ization.[1]

3.2.2 Codes of Ethics

Similar to shared training opportunities, professionalized occupations tend to adhere to a centralized code of ethics that can guide practioners in navigating daily decision making and actions. Wilensky (1964) identifies the final step in his process to professionalization as the adoption of a formal code of ethics. The Hippocratic Oath is an example of a formal code of ethics in the medical profession. The American Bar Association maintains several codes and oaths, which barred attorneys are expected to follow. There is evidence that terrorist organizations are adopting internal codes of ethics. For example, al Qaeda maintains a code of ethics[2] in its operational manual. al Qaeda's code of ethics was seized by Manchester Metropolitian Police, in the United Kingdom, during a raid on a suspected al Qaeda affiliate's house. Subsequently, a copy was provided to the United States Department of Justice and the document was translated and released for public review.[3] One of the details in the al Qaeda operational manual is that minors may not participate in violent acts of terror. Thus, even beyond providing instructions in how the attacks should be executed, the document codifies those individuals who should and should not be considered part of the profession. Relatedly, in recent work, Jo et al. (2021) find evidence that 20% of rebel groups have expressed a commitment to international law. The implications of this research suggest that organizations using terrorism may be finding ways to constrain themselves to seem more legitimate in the eyes of the international community, which could be further evidence for the professionalization

[1] Some terrorist organizations, like the Islamic State, maintain online recruiting periodicals that also serve as training guides for potential recruits (Shapiro, 2013). Recently, I have been thinking about whether or not these types of materials are considered trade publications, which could cross an additional threshold in the process of professionalization. There are two reasons that I do not include a more thorough discussion of this topic. First, I cannot identify with certainty how these materials are used. Second, I am not sure if the publication of recruitment materials or training materials is necessarily a professional task. Evidence that the materials are peer-reviewed could make me more confident in this assessment.

[2] A collection of ISIS documents collected by a New York Times journalist are in the process of being translated and digitized for research. The digital collection will be maintained by George Washington University's Program on Extremism. I am anxiously awaiting the full release of the digital documents as I hope that other codes of ethics and evidence of professionalization will be made available. For more information: https://extremism.gwu.edu/isis-files.

[3] https://www.justice.gov/sites/default/files/ag/legacy/2002/10/08/manualpart1_1.pdf

argument presented in this dissertation.

Affiliates and allies are incentivized to uphold the ethical standards and implement their shared training from the parent organization. Organizations that fail to maintain the professional standards set by the parent organization may no longer have access to the resources, knowledge, and reputation of the parent organization (Mendelsohn, 2015). Thus, parent terrorist organizations serve as the external peer reference group to which other terrorist organizations turn to for cues on professional behaviors.

3.3 Why Affiliates and Allies Adopt the Professional Standards of the Parent

After examining some of the avenues in which a parent organization can put forth its professional standards, the question remains why affiliates and allies adopt the standards of the parent organization. Why do affiliate and allied organizations succumb to the normative pressures set forth by parent organizations? I argue that there are three mechanisms that may explain why affiliate and allied organizations align with the social norms of the parent organization. First, affiliate and allied organizations are simply observing the actions taken by the parent organization and operating in kind. However, this explanation fails to explain the effect of the social pressure for affiliates and allies to behave in a manner that is consistent with the parent organization.

Second, the affiliate and allied organizations may view perceive that actions taken by the parent organization are effective and worthwhile endeavors. I argue that the perception of effectiveness is particularly attractive for affiliate and allied organizations. Because the parent organizations are perceived to set the professional standard, it is implied that they only take actions that align with that standard. Therefore, the actions are seen as effective and worthwhile by the audience, which in this case consists of affiliate and allied organizations. The underlying assumption in this discussion is that the parent organization will be successful in their endeavors. I do not expect that affiliates or allies will follow the normative pressures of the parent organization when the parent organization fails to meet its objective. Under the circumstances of failure on behalf of the parent organization,

affiliate and allied organizations may resort to the well-known tactical selections of bombings and armed assaults or the failures could generate an opportunity for the subordinate organizations to attempt to mildly redefine the jurisdiction of terrorist activity. I take up a discussion of jurisdiction in greater detail in Chapter 4. There is more work to be done on theorizing about what happens when a parent organization fails to meet its objective. I will return to this idea when discussing future research avenues in Chapter 5.

The final mechanism that explains why affiliate and allied organizations align with the professional standards of the parent organization is an argument of indirect signaling. The argument of indirect signaling is tied to the perception of effectiveness. Before assessing whether or not a parent's actions can be classified as a signal, it is necessary to identify why signals need to be transmitted in the first place and the characteristics of a signal. Fearon (1997) explains why actors need to send signals, while his work focused primarily on state actors, the theory applies to non-state actors as well. To begin, it is difficult, if not impossible, to observe other actors' preferences for across a variety of decisions, to include the tactical repertoire of another terrorist organization. And second, terrorist organizations have an incentive to appear to be resolved to use violence, even if the organization is actually unwilling to do so. The uncertainty of the operating environment requires that terrorist organizations transmit signals to communicate with one another about their 'types.' That is, terrorist organizations send information into the international community about their willingness to use violence in order to meet their goals.

Jervis (2017) defines a signal as the actions and statements that are made to convey information about a sender to a receiver in the hope of influencing how the receiver views the sender. But as the Shannon-Weaver model from communication studies indicates, any communication will necessarily include "noise," which could be anything from a sound that we hear to being distracted when someone is speaking to us (Shannon, 1948). In international relations, we tend to think about the noisiness of a signal as being conditioned on the clarity of the information being sent, the reliability of the sender, as well as other distractions that could interrupt the transmission of the

signal from the sender to the receiver. These factors also apply when we are considering terrorist organizations as the senders and receivers of the signal. One additional complicating factor for terrorist organizations in sending signals to one another is the covert nature of the organizations. However, in the case of affiliate and allied organizations, I argue that communication with the parent organization is relatively regular. Therefore, I argue that the affiliate and allied organizations should be able to receive and appropriately interpret the signals sent by parent organizations with relative ease.

But merely sending a signal, even if it is clear, does not mean that the signal will influence how the receiver thinks about the sender. A signal must be credible. That is, the receiver must believe that the information provided by the sender carries some truth-value. Schelling (1966) asserts that signals require some level of cost in order to be credible, which is referred to as "costly signaling." Costly signaling means that the sender must bear some cost when transmitting the information. Fearon (1997) explains that ".. a threat may be rendered credible when the act of sending it incurs or creates some cost that the sender would be disciplined to incur or create if he or she were in fact *not* willing to carry out the threat" (69, emphasis in original). This cost is called an "audience cost," which is the cost that the sender pays for backing down from a public threat or warning. It is important to note that while Fearon (1997) is writing in reference to nuclear weapons, that a terrorist organization can also send a costly signal to an audience of other terrorist organizations. A costless signal, on the other hand, is one in which the sender bears no cost in transmitting the information and likely lacks credibility to impose any kind of cost. I argue that an indirect signal in one in which the sender does not publicly threaten non-compilers, but the receiver is made aware of the consequences of non-compliance through repeated interactions with the sender.

Now we can apply the logic of an indirect signal to the parent organization. The parent organization offers support to its affiliate and allied organizations. One such example of the support is the shared training opportunities discussed above. Further, through the maintenance of a formal code of conduct, parent organizations indirectly signal their intention to sanction non-compliance

within their organization and network. Indirectly, the parent organization can threaten to withdraw its support from an affiliate or allied organization that fails to adhere to the norms set forth by the parent organization. Withdraw of support may include, but is not limited to: reducing material or financial support, limiting access to training opportunities, stripping an affiliate organization of the parent's "branding," formally severing alliance ties, or attacking a non-compliant affiliate or ally. By aligning with the parent organization on tactical selection, affiliate and allied organizations are able to signal to the parent organization that the actions taken by the parent organization are the norm of terrorist violence.

3.4 Affiliate-Parent Relationship

Affiliated organizations are those that "...a terrorist organization that accepts the leadership of another terrorist organization but remains organizationally distinct" (Byman, 2014, 434). Because the affiliate organization formally recognizes the leadership of the parent organization, it may also suffer repercussions if it exhibits bureaucratic drift. The parent organization should be more capable of monitoring, even in the covert operating environment, its affiliate organizations relative to other connections it may have. The threat of negative sanctioning from the parent organization should cause the affiliate to align its tactical repertoire with that of the parent. As the primary agent of the parent organization, I expect that affiliates should be have a tactical repertoire that is closely aligned with the parent's repertoire.

Further, a defining element of the affiliate-parent relationship is the level of the original attachment. Because the affiliate organization is attached to the parent organization from the outset, it has a greater opportunity to engage in the professionalization process set forth by the parent organization. Because the affiliate organization is formed directly from the parent organization, its personnel are well-indoctrinated with the professional norms set forth by the parent organization. The affiliate organization emerges from the parent organization rather than forging a path separate from the parent organization. As a result, the affiliate organization reflects the professional image

of its parent organization from the outset. Further, the affiliate organization has greater opportunities to align with the professional standards of the parent organization as all of its decision making calculations will be filtered through the principles and standards set forth by the parent organization. By filtering all the decisions through the principles and standards set forth by the parent organization, every decision made by an affiliate organization from its outset is formed (perhaps unwittingly) from the normative pressures of the parent. These explanations yields the first hypothesis:

Hypothesis 3a. *When a parent organization selects a specific tactic from its repertoire, an affiliate organization will be more likely to select that same tactic in the future.*

3.5 Ally-Parent Relationship

Unlike the affiliates, allied organizations may have weaker original connections with the parent organization. But allies are now closely aligned with the parent. Through the examples of shared training and ethical codes described above, I expect that allied organizations will develop a professional ethos that aligns close with the parent organization. And, once again, the composition of the tactical repertoire will serve as a way to test the external pressures of the parent organization.

The lack of an original attachment to the parent organization will, however, attenuate the degree to which the allied organization adheres to the normative pressures set forth by the parent organization. An allied organization originates either on its own or from another organization. The organization can then enter into an alliance with the parent organization if it hopes to share in the benefits provided by the parent organization, such as access to resources, training opportunities, and alignment with the code of ethics. However, unlike an affiliate organization, an allied organization will experience a lag in its professionalization process as it works to shift the organization into alignment with the parent organization. From the outset, the allied organization will retain

control over its decision making processes and we should not anticipate that joining a formal alliance with a parent organization will elevate the professional standards of the allied organization immediately. I argue that an allied organization will face an adjustment period while it transitions into the professional standards set by the parent organization. Further, unlike an affiliate organization, an allied organization will retain much of its own control over its decision making processes, which means that it may not completely align itself with a parent organization. However, through repeated interactions with the parent organization, I expect that an allied organization will adopt the professional standards set forth by the parent organization. Specifically, I expect that:

Hypothesis 3b. *When a parent organization selects a specific tactic from its repertoire, an allied organization will be more likely to select that same tactic in the future.*

While both the affiliates and the allies maintain an active working relationship with the parent organization, the affiliate organization goes a step beyond a relationship with an ally by formally recognizing the leadership of the parent organization. And, in turn, the parent organization will formally accept the affiliate's relationship and use of its brand (Byman, 2014; Mendelsohn, 2015). The formalization of the relationship between the parent and the affiliate should result in less departure from the parent's tactical repertoire for the affiliate than the tactical repertoire of the ally. Thus, I propose the final hypothesis for the chapter:

Hypothesis 3c. *Because of its original attachment to the parent organization, an affiliate organization will be more influenced by changes to the tactical repertoire, relative to allied organizations.*

3.6 Data

In this section, I describe the data that I use for Chapters 3 and 4. The only substantive differences between the modeling strategies between the two chapters are the samples under consideration. The data for both chapters are drawn from the Militant Group Alliances and Relationships (MGAR) data set (Blair et al., 2021). The authors collected the "...data [in an] attempt to document all known cooperative and competitive relationships for a large sample of militant groups globally from 1950 to 2016" (Blair et al., 2021, 165). The data reflect 2,613 militant groups and captures nearly 6,000 cooperative agreements between those groups. One of the benefits of these data, for my purposes, is that the data are generated from the GTD. The link between the MGAR data and GTD data ensures that the cases under consideration rise to my definition of terrorism. Notably, when the MGAR data begin in 1950, the GTD data are only available beginning in 1970. While the data are available at different levels of analysis, I selected the dyad-year data in order to best capture the relationship between two terrorist organizations. While the MGAR data were published only a few months ago, I anticipate that the data will quickly attract scholarly attention.

3.6.1 Coding the Relationships Between Organizations

While the MGAR data set provides coverage for an impressive number of dyadic relationships between organizations, the data are not immediately structured for my analyses. As a result, I began by recoding the relationships in the data set to align with my theoretical expectations. For the purposes of this chapter, I will focus on how I coded affiliates, allies, and parent organizations. In Chapter 4, I will discuss how I coded splinter and rival organizations. The initial scope of the MGAR data set extends beyond the types of actors that I consider in this dissertation. For example, the MGAR data set includes nonviolent social movements, state actors, criminal organizations, and political parties. To begin, I purged the data so that I was only left with dyads in which both actors are violent nonstate organizations.

While the MGAR data set includes relationship types, the language used to describe the rela-

tionships is different from my lexicon; however, the described relationships align closely with my theoretical expectations. All of the relationships are captured using a binary measure for each actor in the dyad. I recode the MGAR relationship for "Allies" as those of "Affiliates." As described by Blair et al. (2021, 5), relationships coded as allies, which I recode as affiliates, are those in which the dyad "exhibit(s) extremely high cooperation a combination of financial, material, logistical, and personnel support." The authors go on to explain that decision-making is often driven by the centralized organization with the surrogate acting in according to the decision made by the centralized organization. The centralized organization, in my case, would be the parent organization and the the surrogate organization is the affiliate. In order to determine which organization is the parent and which is the affiliate, I rely on the "Patron" filter, which helps identify which organization in the dyad provides the majority of the benefits to the other organization.

A more pure coding of the affiliate relationship, based on my presented theory, would include not only those organizations that exhibit an extremely high level of cooperation, but also those that share in a common "branding" with the parent organization. I conceptualize a shared "brand" to mean that the organizations display their relationship through a shared naming convention. For example, al Qaeda (AQ) maintained many affiliate organizations, such as al Qaeda of the Arabian Pennisula (AQAP) (Mendelsohn, 2015; Byman, 2014). In future iterations of this analysis, I intend to hand code a data set specifically for this project. Time constraints associated with my timeline to completing this dissertation were the major limiting factor in my ability to code the optimal dataset for this chapter.

The MGAR data set also codes relationships in which the dyads are "Associates." The concept of associates aligns closely with my discussion of the relationship between parent and allied organizations. Therefore, I recode the MGAR relationship for "Associates" as "Allies." Blair et al. (2021, 5) define associates, which I recode as allies, to be those relationships in which there are high levels of cooperation through the same support mechanisms described above. However, a major distinguishing factor for associates is that the organizations retain control over their own de-

cision making processes. To identify the parent organization in the dyad, I once again employ the use of the "Patron" filter to identify the organization that is providing the majority of the benefits in the relationship.

3.6.2 Dependent and Independent Variables: Tactical Choices of Each Type of Terrorist Organization

For this chapter, the key dependent variables are the tactical choices made by the affiliate and allied organizations. As with Chapter 2, the data are originally drawn from the GTD. In this case, the GTD data are merged with MGAR data. Once again, I am concerned with the tactical choices. For Chapters 3 and 4, I only include five tactical choices, instead of the six reflected in Chapter 2. In this analysis, unarmed assaults are dropped from the observations as there are no terrorist dyad observations in which both organizations are using unarmed assaults. This result is not surprising as unarmed assaults only account for 0.6% of all events (See Figure 1.2).[4] Otherwise, the data are recorded as binary choices to use a given tactical choice within a year. As with Chapter 2, a value of 1 indicates that the tactic was selected, and 0 reflects otherwise.

The key independent variables are the tactical choices made by the parent organization. The data are coded in the same manner described above. To reflect the theory that the choices made by parent organizations influence the choices made by the affiliated and allied organizations, I lag the independent variable in each model.

3.7 Research Design

To model the relationships for the hypotheses, I use a series of logit models. The logit model is the appropriate choice to test a binary outcome. In addition to the key independent variable in each model, I also include a lag of the dependent variable to account for the influence of past

[4]As discussed above, the MGAR data may not be optimal for the long-term use of this project. I selected the data in order to maintain my timeline to complete the dissertation. In future revisions for Chapters 3 and 4, I intend to code a dataset specifically to capture my proposed relationships between organizations. It is possible that a more thorough dataset will include dyadic relationships in which both partners use unarmed armed assaults. Should that be the case, I will expand the analyses to include this tactic. But for the purposes of this manuscript, unarmed assaults will be dropped from consideration.

organizational behavior on future organizational behavior. Because there are few observations in the final dataset, I present the results for a baseline model that does not include additional covariates. The results from this chapter (as well as Chapter 4) should be interpreted as a preliminary, first order test of the theory. As I continue to work to refine the theory and build an optimal data set, I will return to the modeling strategy and hope to provide a more robust analysis. I discuss some of the challenges with the data after presenting the results. Finally, I use robust standard errors clustered at the dyad-level to account for commonalities across time for observations at the dyad-level (Rogers, 1994). The clustered standard errors will be more robust, although I will lose some efficiency in the estimates.

3.8 Results

The results for Hypothesis H3a are shown in Table 3.1. I present the results for five separate models. Each column represents a different tactical selection. It is important to note that the parent and affiliate organization select the same tactic in each model. As discussed above, the results include both a lagged dependent and independent variable. The results can be interpreted as the effect of a parent's tactical choice in the previous time period on the affiliate's tactical choice in the current time period. Turning our attention to the key independent variable in each model, the coefficients are in the expected direction. When a parent organization selects a specific tactic in the past, for example assassinations, the affiliate organization is more likely to select assassinations in the next time period. However, while the results are in the expected direction, none of the coefficients reaches statistical significance at any acceptable confidence level. Thus, I cannot say with certainty that the relationship between a parent and affiliated organization generates normative isomorphic pressures. In the discussion below, I offer some further ideas of why the model does not generate statistically significant results and what we can take away from the presented analysis.

The results for Hypothesis H3b are shown in Table 3.2. Once again, I present the results for five separate models. Each column represents a different tactical selection. As with before, it is

Table 3.1: Logit Model Results for Hypothesis H3a

Tactic:	Assassination	Hostage	Armed Assault	Bombing	Facility
	(1)	(2)	(3)	(4)	(5)
Affiliate$_{t-1}$	0.542				
	(0.380)				
Parent$_{t-1}$	0.678				
	(0.590)				
Affiliate$_{t-1}$		0.155			
		(0.263)			
Parent$_{t-1}$		1.865			
		(1.095)			
Affiliate$_{t-1}$			0.364		
			(0.376)		
Parent$_{t-1}$			1.237		
			(1.037)		
Affiliate$_{t-1}$				0.532*	
				(0.265)	
Parent$_{t-1}$				0.963	
				(0.725)	
Affiliate$_{t-1}$					0.290
					(0.875)
Parent$_{t-1}$					1.171
					(2.983)
Observations	106	106	106	106	106

Note: *p<0.1; **p<0.05; ***p<0.01. Robust standard errors.

important to note that the parent and allied organization select the same tactic in each model. As discussed above, the results include both a lagged dependent and independent variable. Turning our attention to the key independent variable in each model, the coefficients are in the expected direction. The results across the models are mixed. The first model reflects the results for assassinations. The coefficient of interest is in the expected direction and reaches statistical significance at the 99% confidence level. Substantively, when a parent organization selects to use assassinations in the previous period, its allied organization is more likely to select assassinations in the future. The second through fourth models also have coefficients in the direction expected by the theory. However, for each of these models, the coefficients fail to reach acceptable levels of statistic significance, which does not allow me to reject the null hypothesis. Thus, I cannot say with certainty that the relationship between a parent and allied organization generates normative isomorphic pressures for these models. Further, the last model focusing on facility attacks reflects a coefficient that is in the wrong direction and fails to reach statistical significance. In the discussion below, I offer some further ideas of why the model does not generate statistically significant results and what we can take away from the presented analysis.

While it is possible to evaluate Hypothesis H3c, I am loathe to do so given the lack of statistical significance across the models presented. Initial evidence, when comparing the magnitude of coefficients across the tables, does suggest that the affiliated organizations are more responsive to changes in the parent organization's use of a tactic. However, I would urge readers to not place much stock in the result.

3.9 Discussion

While the majority results shown in Tables 3.1 and 3.2 are in the direction of the hypotheses, most of the coefficients fail to reach statistical significance. There is one exception to the results: model 1 in Table 3.2. I posit that there are three plausible explanations for the results. The first explanation is related to the theory, the second explanation is related to the modeling strategy, and

Table 3.2: Logit Model Results for Hypothesis H3b

Tactic:	Assassination	Hostage	Armed Assault	Bombing	Facility
	(1)	(2)	(3)	(4)	(5)
Ally_{t-1}	0.339***				
	(0.096)				
Parent_{t-1}	0.460**				
	(0.155)				
Ally_{t-1}		1.532*			
		(0.590)			
Parent_{t-1}		0.012			
		(0.017)			
Ally_{t-1}			0.971***		
			(0.178)		
Parent_{t-1}			0.136		
			(0.093)		
Ally_{t-1}				0.656***	
				(0.136)	
Parent_{t-1}				0.183	
				(0.111)	
Ally_{t-1}					1.145***
					(0.124)
Parent_{t-1}					-0.017
					(0.150)
Observations	222	222	222	222	222

Note: *p<0.1; **p<0.05; ***p<0.01. Robust standard errors.

the third explanation is related to the available data. As I continue to work on this project, I intend to continue to rigorously refining and testing the theory with empirical evidence. It is important to reiterate the results shown in this chapter should be treated as a preliminary, first order test of the theory. I have plans to improve the theory, data, and modeling strategy once the time constraints associated with the dissertation are lifted.

I turn first to the theory at hand. In this chapter, I argued that the relationships between various terrorist organizations generates normative isomorphic pressures of organizations to make specific tactical choices. As most of the results fail to reach standard levels of statistical significance, we need to return to the theory at hand to interpret the results. In this case, for the first two hypotheses, I am unable to reject the null hypotheses. Substantively, this may indicate that parent organizations do not act as an external reference group, as I suggest. One alternative explanation is that organizations are selecting tactics randomly or based on solutions that are preferred by operators rather than solutions that align with the goals at hand, vis-à-vis a garbage can model (Cohen, March, and Olsen, 1972).

A second theoretical reason why the models may not provide robust results is that the theory may parse the relationship between parents and affiliate and allied organizations in a manner that does not match reality. I posit that the initial attachment to the parent organization is critical in determining the level to which an affiliate or allied organization will choose to follow the social norms set by a parent organization. However, in placing so much emphasis on the level of original attachment, I may have misspecified the importance of the initial attachment. It could be the case that the level of initial attachment does not matter for affiliate and allied organizations. What may matter more is the current level of attachment to the parent organization. If the current attachment to the parent organization matters more than the initial attachment, then parsing the theory and data into affiliate and allied organizations is unnecessary. Instead, I could consider theorizing and analyzing the data to consider any organization with a current level of attachment to the parent organization, via the direct sharing of resources. In addition to streamlining the theory, a change

of this nature would allow me to pool the results across the existing models, which may lend to a greater opportunity to recover the expected results.

An alternative explanation for the results is that while the relationship between parent organizations at the affiliates and allies may matter that the modeling strategy may not be the most appropriate test of the theory. I choose to study terrorist tactics as a means of assessing the professionalization of terrorism. However, tactics may not be the most appropriate choice for the theory. Gutiérrez-Sanín and Wood (2017) suggest that researchers should study "patterns of violence" rather than portions of violent activities. In this case, I focused on one portion of the violence: the tactics selected by organizations. However, by focusing on one portion of the "pattern of violence," I may be missing opportunities to uncover the results suggested by the theory. As I explain in Chapter 1, a "pattern of violence" includes the tactic, target selection, frequency and timing, and technique. By assessing the full "pattern of violence" I would have additional variation to test, which may also align more closely with the theoretical expectation that the parent organization sets the professional norm in the observed pattern.

Another possibility for the lack of statistically significant results could that the time interval is not appropriate to test the theory. In the current form, I test the theory on an annual data set. The reason for this choice is that it may take time for an affiliate or allied organization to be responsive to a change in tactic by a parent organization, particularly for more complex tactics (e.g., It is likely more difficult to plan and execute an assassination than it is an indiscriminate bombing event.). However, by aggregating the event-level data to the annual-level, I may be removing much needed variation for my statistical tests. Additionally, by analyzing the data at a monthly-level, I would have a greater number of observations, which would lend itself to allow for the use of control variables. For example, I would be able to model when the tactic was first used and most recently used by each partner in the dyad. Further, from a theoretical standpoint, a monthly-level test may more accurately capture the expected changes in tactical selections. And a monthly analysis could allow for additional theoretical work on how long it takes for terrorist organizations to respond to

the normative pressures set forth by a parent organization, a point on which I currently provide no expectations. An immediate next step is to restructure the data in a manner that will allow for a monthly-level test of the existing theory.[5]

Similarly, the models presented in this manuscript are baseline models, given the sample size and availability of reliable covariates, a matter that I take up momentarily. However, the theory presented suggests that there is trade-off among the available choices and that normative isomorphic pressures should lead organizations to converge toward a "normal" tactical repertoire. By using a series of logit models, the functional form does not align perfectly with the theory. Modeling strategies that can more easily capture the trade offs associated with selections into different tactical choices may be a more appropriate modeling strategy. One such modeling strategy is the option to use a dynamic pie model.[6]

And finally, because the theory is focused on a narrow slice of the available terrorist dyads, I do not currently have a large dataset with which to make inferences. As I discussed above, while the MGAR data provide a baseline sample to test my theory, I intend to hand code a data set that more closely aligns with my theoretical expectations. I expect that when I am able to code the data by hand that I will have greater control on the number of dyads that are included in the data as I will be generating the relationships for my purposes rather than using a prefabricated data set. Particularly problematic threat to inference is the lack of coverage for the organization-level covariates. My excluding organization-level covariates, my model remains under-specified. This issue arises across all three chapters of this dissertation and I provide a more thorough discussion of the issue in Appendix C.

[5]While I would love to be able to include such a modeling strategy in the final version of the dissertation, I assess that building the data set would extend beyond the university's filing deadline. I intend to take up this analysis immediately upon filing the dissertation with the university.

[6]Given the computational complexity associated with time series, cross sectional data in dynamic pie modeling, this task will need to be taken up in a future research effort that extends beyond the scope of the dissertation.

3.10 Conclusion

In this chapter, I argued that the relationships between terrorist organizations matter. More specifically, I argued that parent organizations serve as the external reference group for their affiliate and allied organizations. In this capacity, I expected that the choices made by parent organizations would impact the choices made by affiliate and allied organizations.

One of the unique theoretical contributions of this chapter is my argument that overlap in tactical repertoires among parent, affiliate, and ally terrorist organizations is evidence of the professionalization of terrorism. Because parent organizations serve as the external reference group for affiliate and ally terrorist organizations, overlap in tactical decision making indicates the value of the normative guidance provided by the parent organization.

While the empirical results suggest that affiliate and ally organizations may be influenced by parent organizations, the results fail to reach standard levels of statistical significance, meaning that I cannot reliable reject the null hypothesis. In the discussion of the results, I provided a few alternative explanations for the results. I argue that the theory may need refinement, the modeling strategy may need to change, and the data reliability needs to improve. It is also possible that the results reflect some portion of each of those explanations.

The results presented in this manuscript are a first-order test of the theory. Despite the lack of statistical significance, we still learn from the process. From a theoretical standpoint, in a point I raised earlier, it could be the case that the relationships between the organizations are not influenced by normative isomorphic pressures. I argue that just because the data does not support the theory at this juncture does not mean that scholars should abandon theories of professionalization of terrorism.

4. SPLINTER AND RIVAL ORGANIZATIONS

4.1 Introduction

What role do splinter and rival organizations play in the professionalization of terrorism? And to what extent do parent organizations shape the tactical repertoires of splinter organizations and rival organizations? I set out to answer each of these questions in this chapter. More specifically, I explore the relationships depicted in the bottom row of Figure 1.4 in the introduction. The organizations under consideration will be those that currently possess a low degree of attachment to the parent organization. This chapter continues the discussion from the third chapter with a different subset of organizational types.

Unlike affiliates and allies, splinters and rivals do not currently maintain a high level of attachment to the parent organization. As a result, I argue that we should expect to observe a greater departure from the tactical repertoires of the parent organizations. It is important to note that splinter organizations initially maintained a high level of attachment to the parent organization, which may have implications for of its tactical repertoire.

In addition to the three contributions from Chapter 3, I make two additional contributions in this chapter. Testing the theory on splinter and rival organizations allows me the opportunity to perform an analysis on the outbidding logic, which is prevalent in the study of conflict. Further, I contribute to the professionalization literature by considering the role that "nonprofessionals" play in the professionalization process. While nonprofessionals are occasionally included in theories of professionalization, the group tends to receive less scholarly attention.

4.2 The Role of Splinter Organizations in Professionalization

Unlike affiliates and allies, splinter and rival organizations do not share in the resources, information, and reputation sharing benefits of parent organizations. Although, a splinter organization may have shared in those benefits in the past. While splinters and rivals do not share in the

resources, information, and reputation sharing benefits with the parent organizations, these organizational types play a significant role in the professionalization of terrorism. The emergence of organizations that may not align with the existing external peer reference group is anticipated by the professionalization literature (Abbott, 2014; Bucher and Strauss, 1961; Bucher, 1962; Richardson, 1987). And the existence of organizations inside the profession that seek to redefine the jurisdiction of the profession is a natural part of the professionalization process. For example, consider the following insight from Abbott (2014, 93):

> New organizations often create new professions. People who occupy equivalent positions in equivalent organizations band together, pool their knowledge, and organize occupational groups that ultimately become independent of the originating organization.

Bucher and Strauss (1961) and Bucher (1962) call the emergence of new organizations from existing professions a "social movement within a profession." The reason for referring to the emergence of new organizations as a social movement is that the character of the actions taken by the new groups is akin to that of a social movement: a call for change in the profession. Splinter organizations, as I have defined the category, align closely with this conceptualization. Splinter organizations begin within an existing organization and leave the parent organization in order to attempt to define the boundaries of acceptable behaviors.

Splinters actively disengage and remove themselves from an existing organization, which shall become a parent organization (if it was not already one under other circumstances). Many scholars are explore the conditions under which splinter organizations emerge (See for example: Jones and Libicki, 2008; Cronin, 2009; Asal, Brown, and Dalton, 2012; Staniland, 2014; Perkoski, 2015). While I do not specifically focus on the question of why splinter organizations emerge, the extant literature is particularly useful in framing the discussion for a "social movement within a profession." One of the common reasons for internal organizational conflict is contestation over preferences (Chenoweth and Moore, 2018). Disagreements over preferences can occur between

leader (Harmon, 2010) or between leaders and foot soldiers (Abrahms and Conrad, 2017). If the disagreeing parties refuse to cooperate, a splinter organization may arise. In essence, when a party within a terrorist organization disagrees over the preferences of the organization, that party can first "voice" their concerns. If discussion does not resolve the issue at hand, an option is to "exit" the organization and find an alternative or generate a new organization (Hirschman, 1970).

Asal, Brown, and Dalton (2012) find that ethnopolitical organizations split under two conditions: (1) competing leadership within the organization or (2) when the organization uses violence as a tactic. Both conditions are informative for my discussion of splinter organizations. Competing leadership in the parent organization suggests a divide over strategy and how tasks should be allocated to support that strategy. Second the tendency to split as a desire to use more violence would also suggest that splinter organizations should be allocating violence in a manner that is different from the parent organization. Further, Horowitz, Perkoski, and Potter (2018) suggest that younger organizations tend to be more flexible in the types of attacks that they use. Thus, I argue that we should expect to see splinter organizations, particularly newer splinter organizations, diverging from the norms and professional standards set by the parent organization, hence attempting to redefine the jurisdiction. This leads to the first hypothesis in the final chapter:

Hypothesis 4a. *When a parent organization selects a specific tactic from its repertoire, a splinter organization will be less likely to select that same tactic in the future.*

4.3 The Role of Rival Organizations

Unlike splinter organizations, rival organizations have never been part of a parent organization. Rival organizations may not emerge from parent organizations, but still align with the idea of a social movement inside a profession as they actively compete with the parent organizations for the approval of both the public audience and the audience of other terrorist organizations. I argue that

rival organizations are attempting to redefine the boundaries of the profession and may even be attempting to rise as the preferred external reference group, thus unseating the parent organization.

Therefore, I expect that:

Hypothesis 4b. *When a parent organization selects a specific tactic from its repertoire, a rival organization will be less likely to select that same tactic in the future.*

Hypothesis 4b also provides a test of the outbidding strategy that is well-established in the terrorism literature (See for example: Kydd and Walter, 2006; Bloom, 2005; Findley and Young, 2012*a*). The outbidding strategy occurs when there are two or more terrorist organizations in direct competition for the public's support. Under these conditions, the competing organizations will continue to use increasing levels of violence to convince the audience of their resolve and strength (Kydd and Walter, 2006). In one notable test of the outbidding logic, Findley and Young (2012*a*) did not find evidence for the outbidding strategy when there were more terrorist organizations. While Findley and Young (2012*a*) do not find evidence supporting the outbidding logic, my proposed test is different. I adjust the argument by suggesting that the audience is not the public, but rather other terrorist organizations.

Because splinter organizations originate from the parent organization, we can expect some level of common training, perhaps strategy, and ethos of excellence to be instilled in the members of the splinter organization. Rival organizations, on the other hand, always have maintained separation from the parent organization and may be working to define their own vision for the profession. Both of these organizational types are pushing to redefine the jurisdiction of the profession. However, we should anticipate that the composition of the splinter organizations' tactical repertoires should more closely resemble that of the parent than the rival organizations' repertoires. This leads me to the third hypothesis of the chapter:

Hypothesis 4c. *Because of its original attachment to the parent organization, a splinter organization will remain more influenced by changes to the tactical repertoire, relative to rival organizations.*

4.4 Data & Research Design

As I discussed in Chapter 3, given the relationships between the chapters, I constructed a singular dataset is used for both analyses. Building on the data structure described above, relationships between organizations are coded to capture splinter and rival organizations. Each category will be coded as a binary indicator, taking a value of 1 if the organization meets the criteria to be included in the category, and 0 otherwise. Splinter organizations will obtain a value of 1 when an organization emerges from an established organization and stands in opposition to the organization from which it emerged. This definition is in alignment with previous work to identify splinter organizations (Olson Lounsbery, 2016). For the purposes of my dissertation, I will limit rival organizations based on geographic location. Rival organizations will be defined as all other terrorist organizations that fail to rise to the standards of affiliates, allies, or splinters in a country. Geographically bounding rival organizations as those in competition over a common government is standard in the existing literature (Bloom, 2005; Metelits, 2009; Findley and Young, 2012*a*; Tokdemir et al., 2020; Powell and Florea, 2021). The primary concern with coding rivals in this manner is that it will not capture regional or transnational rivalries. This is one area in which the project could improve in the future.

The research design this chapter mirrors the research design from Chapter 3, as I remain interested in the tactical repertoire of each organization relative to the parent organization. Once again, to model the relationships for the hypotheses, I use a series of logit models. The logit model is the appropriate choice to test a binary outcome. In addition to the key independent variable in each model, I also include a lag of the dependent variable to account for the influence of past or-

ganizational behavior on future organizational behavior. Because there are few observations in the final dataset, I present the results for a baseline model that does not include additional covariates. I discuss some of the challenges with the data after presenting the results. Finally, I use standard errors clustered at the dyad-level to account for commonalities across time for observations at the dyad-level (Rogers, 1994). The clustered standard errors will be more robust, although I will lose some efficiency in the estimates.

4.5 Results

The results for Hypothesis H4a are shown in Table 4.1. I present the results for five separate models. Each column represents a different tactical selection. It is important to note that the parent and splinter organization select the same tactic in each model. As discussed above, the results include both a lagged dependent and independent variable. Turning our attention to the key independent variable in each model, the results are mixed. Some of the coefficients are in the direction anticipated. When a parent organization selects assassinations, the splinter organization is less likely to select assassinations in the next time period. However, while this result is in the anticipated direction, the model fails to reach acceptable levels of statistical significance. None of the models in Table 4.1 reach statistical significance at any acceptable confidence level. Thus, I cannot say with certainty that the relationship between a parent and splinter organization generates normative isomorphic pressures.

The results for Hypothesis H4b are shown in Table 4.2. Once again, I present the results for five separate models. Each column represents a different tactical selection. As with before, it is important to note that the parent and rival organization select the same tactic in each model. And, as discussed above, the results include both a lagged dependent and independent variable. Turning our attention to the key independent variable in each model, the results across the models are mixed. I hypothesized that rival organizations would be less likely to follow the tactical selections of the parent organizations. In some cases, the magnitude of the result may align with the expectation. For

Table 4.1: Logit Model Results for Hypothesis H4a

Tactic:	Assassination	Hostage	Armed Assault	Bombing	Facility
	(1)	(2)	(3)	(4)	(5)
Splinter_{t-1}	0.107				
	(0.183)				
Parent_{t-1}	-0.008				
	(0.041)				
Splinter_{t-1}		0.198			
		(0.341)			
Parent_{t-1}		0.974			
		(1.154)			
Splinter_{t-1}			0.592*		
			(0.432)		
Parent_{t-1}			0.993		
			(0.743)		
Splinter_{t-1}				1.278**	
				(0.340)	
Parent_{t-1}				0.988	
				(0.825)	
Splinter_{t-1}					0.461
					(0.776)
Parent_{t-1}					0.562
					(0.937)
Observations	204	204	204	204	204

Note: *p<0.1; **p<0.05; ***p<0.01. Robust standard errors.

example, while rival organizations may be influenced to take hostages after the parent organization takes hostages, the result fails to reach statistical significance. Further, in some cases the actions taken by the parent organization appear to influence rivals to use that tactic in the future. The armed assault and bombing models reflect a coefficient that may align with this interpretation. However, it is important to remember that bombings and armed assaults are the two most frequently selected tactics, which may account for these results. For each of these models, the results fail to reach acceptable levels of statistic significance, which does not allow me to reject the null hypothesis. Thus, I cannot say with certainty that the relationship between a parent and rival organization generates normative isomorphic pressures for these organizations.

While it is possible to evaluate Hypothesis H4c, I am loathe to do so given the lack of statistical significance across the models presented. Initial evidence, when comparing the magnitude of coefficients across the tables, does suggest that splinter organizations are remain more responsive to changes in the parent organization's use of a tactic. Substantively, this may indicate that the original degree of attachment to the parent organization may play a role in the long-term decision making processes of splinter organizations. However, I would urge readers to not place much stock in the result.

4.6 Conclusion

The primary theoretical contribution of this chapter is the claim that splinter and rival organizations play a critical role in defining the profession of terrorism. Both of these organizational types seek to redefine the jurisdiction of the occupation. To the degree that we see divergence from the parent organizations, we should expect to see it from splinter and rival organizations.

As discussed earlier, professionalization is not a binary status. Instead, we ought to think about professionalization on a sliding scale. The existence of competition within the profession regarding the appropriateness of various tactics suggests that the profession is actively engaged in determining what is and is not acceptable behavior. Further, Hypothesis H4b with serve as a

Table 4.2: Logit Model Results for Hypothesis H4b

Tactic:	Assassination	Hostage	Armed Assault	Bombing	Facility
	(1)	(2)	(3)	(4)	(5)
Rival_{t-1}	0.248**				
	(0.074)				
Parent_{t-1}	0.329				
	(0.568)				
Rival_{t-1}		1.024*			
		(0.321)			
Parent_{t-1}		0.098			
		(0.127)			
Rival_{t-1}			1.825***		
			(0.213)		
Parent_{t-1}			0.731		
			(0.643)		
Rival_{t-1}				0.948***	
				(0.129)	
Parent_{t-1}				0.338	
				(0.292)	
Rival_{t-1}					0.936**
					(0.367)
Parent_{t-1}					0.009
					(0.211)
Observations	348	348	348	348	348

Note: *p<0.1; **p<0.05; ***p<0.01. Robust standard errors.

test of the outbidding logic with a twist. Unlike traditional outbidding logic arguments, instead of the public serving as the audience, I argue that other terrorist organizations are the audience in question.

Empirically, this chapter serves as a first-order test for the tactical decision making relationships between various types of terrorist organizations, agnostic of organizational ideology. By setting discussions of ideology to the side, I hope to illustrate that terrorism exists in a well-defined professional structure. For policymakers, this may mean that counterterrorism approaches need to be re-evaluated to account for the normative isomophic pressures of the profession.

However, I do not make specific policy recommendations based on the findings from this chapter, as once again the models consistently fail to reach statistical significance. The discussion of the results of Chapter 3 are also helpful when interpreting the results of this chapter. Specifically, additional work must be done to refine the theory, modeling strategy, and data availability. However, the results presented in this chapter still contribute to our understanding of professionalization in terrorist organizations. While the empirical evidence may not presently support the theory, it is possible that terrorist organizations are not yet far enough along in the process of professionalizing the occupation. A future line of research could explore other ways to test the mechanisms in the chapter.

5. CONCLUSION

5.1 Implications

In this dissertation, I set out to answer the question: How do terrorist organizations make their tactical decisions? In so doing, I put forward a theory predicated on the idea that organizations, organizational dynamics, and the people inside of the organizations matter. Another key element of my theory throughout the dissertation is that the relationships between organizations matters. Through three empirical chapters, I developed a theory of how terrorist organizations respond to changes in their operating environment, based on changes made by other actors.

In the first empirical chapter, I developed a theory about the role of state repressive activities on terrorists tactical decisions. I argued that when a state uses extranormal violence targeted at specific terrorist organizations that those organizations must adapt to the changed operating environment if the organization wants to survive. More specifically, I theorized that particular types of state repression will induce terrorist organizations to select particular tactics that (nearly-)match the behavior of the state. Further, when the state escalates its repressive activities to the use of torture or widespread violations of physical integrity, the terrorist organization in question will exapnd the number tactics that it uses in an attempt to confuse or overwhelm the state's response. The empirical results generally supported the expectations, although some of the statistical significance was attenuated in the most restricted samples.

In the second empirical chapter, I pivoted from the terrorist organization-state relationship to focus terrorist organization dyadic relationships. More specifically, I developed a theory of the role of professionalization among parent, affiliate, and allied organizations. I argued that parent organizations set the professional standard by which organizations in their network ought to behave. These social pressures set forth by the parent organization incentivize affiliate and allied organizations to align their behaviors with that of the parent. The data and modeling strategy to test the

theory are preliminary. And while the results fail to reach standard levels of statistical significance, the results are in the expected direction, which lends some credibility to the theory. I will discuss some of the avenues for future research on this project below.

And in the final empirical chapter, I continued to develop a theory of professionalization among terrorist organizations by focusing on the role of parent, splinter, and rival organizations. Unlike the affiliate and allied organizations presented in the previous chapter, splinter and rival organizations stand in opposition to the professional standards set forth by the parent organization. The theory builds on the literature of "social movements in professions." By directly challenging the social norms set forth by the parent organization, the splinter and rival organizations seek to redefine the jurisdiction of terrorist violence and set social norms that align more closely with their preferences. The existence of splinter and rival organizations suggests that social control over the profession is contested among terrorist organizations. One again, the data and modeling strategy to test the theory are preliminary. The results for this chapter do not align with my theoretical expectations and fail to reach standard levels of statistical significance. From a theoretical standpoint, it is possible that I have overly constrained the relationships and from a data standpoint, I am not convinced that I have the entire universe of cases. I take up both of these points below.

5.2 Limitations & Opportunities for Future Research

Throughout the manuscript, I pointed to a number of future research avenues that could expand on the existing work. While the results from the final two empirical chapters may appear lackluster, there is additional work to be done on several fronts to continue to develop my research agenda of the professionalization of terrorism. Some of the improvements can be made immediately, but do not make it into the final version of the dissertation due to the deadlines set by the university. Some of the other avenues for research are part of a long-term research agenda that I hope to pursue in the coming years. I walk through how I can overcome some of the existing limitations as well as the long-term research agenda below.

5.2.1 Immediate Improvements to the Existing Manuscript

I have a list of several immediate improvements that I intend to make to this manuscript, after it is officially submitted to the university. Some of the improvements are theoretical and others are empirical. I expect that these improvements will elevate the existing work and continue to refine the theory and bolster the findings. I anticipate that Chapter 2 is closest to being ready to submit to a peer-reviewed journal and would like to pursue that option in the coming months.

There is one major empirical test that I would like to conduct for Chapter 2 as another test to overcome the concerns of endogeneity. Specifically, I intend to restructure the modeling strategy to test the terrorist tactical selections as the independent variable and the state's repressive activity as the dependent variable. Restructuring the data will likely take about a week to complete and I will need an additional week to run and interpret the results. The benefit of inverting the existing test is that if I do not find any evidence that the terrorist tactical selections impact the repressive activity selections of the government, then I will have a second sound robustness check for endogeneity.

Further, I intend to work with the Dynamic Pie research group, led by Dr. Guy Whitten, to find a way to use a dynamic pie modeling strategy for the theory. My theory specifically speaks to the tradeoffs that terrorist organizations face when making tactical selections. As the data are modeled right now, terrorist organizations can select different tactics, but I do not capture what activity the organization foregoes when it makes that selection. I would like to be able to model the data in this manner to overcome the issue that I identified in the literature so that researchers can take tactical selection across the entire repertoire more seriously.

In the discussions of Chapters 3 and 4, I outlined a number of pathways for improvement on the existing work. From a data standpoint, my main concern is hand coding a data set that fits my purposes more directly. While the MGAR data set is impressive, there is slippage between my theory and the manner in which the data are coded. With an original data set in which I generate the coding, I will have greater confidence that I have fully captured the universe of relationships

between terrorist organizations. Further, I anticipate that the data set will allow for more nuanced tests of the theory. When building the data, I intend to code the information both annually and monthly.

An immediate next step, empirically, for Chapters 3 and 4 is a monthly test of the theory, rather than an annual test. I concur with the committee that the benefits of a monthly analysis will yield greater statistical power and will allow me to include covariates beyond those in the baseline models presented above. A more appropriate modeling strategy will also allow me to officially evaluate the hypotheses H3c and H4c. With a stronger data set and modeling strategy in hand, I feel confident that I can more rigorously test the theory.

From a theory standpoint, in Chapters 3 and 4, I need to spend more time thinking through the threats to inference. One of the weaknesses with the current manuscript is that I need to more carefully evaluate the endogeneity concerns. The committee raised a concern about the near simultaneity of tactical choice selection between parent organizations and their affiliates and allies. I hope that with an improved modeling strategy and more polished data set that I will be able to address these concerns more directly. For the time being, I acknowledge, once more, that the current manuscript provides only a first order test to the theory.

The committee also suggested the use of a case study to enliven the discussion throughout the manuscript. Over the coming months, I intend to set to work identifying a list of viable case study options. I want to carefully consider the options so that I can find a case study that is a "hard" test for the theory, rather than one that might immediately lend support to my hypotheses.

5.2.2 Long-Term Research Agenda

Over the next several years, I hope to continue developing my research agenda on the professionalization of terrorist organizations. Despite the existing lackluster results, I think that the theory is worth refining and pursuing further as it provides a valuable lens through which international relations scholars can study terrorist organizations.

One long-term pathway for future research is to more carefully interrogate the level of attachment between the organizations. In my existing theory, I propose that organizations are maintain high or low levels of initial and current attachment. Further, the existing theory implicitly assumes that both the initial and current level of attachment weigh equally in determining the degree with which an affiliate, ally, splinter, or rival organization will adhere to the social pressures exerted by the parent organization. As I previewed in the discussion of Chapter 3, this assumption may not be entirely valid. It could be the case that the degree of initial attachment matters less than the degree of current attachment. While the initial attachment may cause an organization to succumb to the social norms more quickly, the current level of attachment may better predict the degree to which the norms are implemented.

Similarly, I am interested in developing a theory that accounts for variation across the level of current attachment. While organizations may be allied with a parent organization, the current theory implicitly assumes that all allied organizations receive the same level of support from the parent organization. However, the literature on state alliances suggests that there is often variation in alliance structures, which has implications for the level of attachment between two states. The state alliances literature may prove particularly useful for this endeavor.

The theory presented in Chapter 3 also opens the question of what happens when a parent organization fails to meet its objective? What role does parent failure play in the process of professionalization? I provided some initial thoughts about how affiliate and allied organizations may respond in the face of parent failure, which include either a reversion to the most common tactics or attempts to redefine the jurisdiction, similar to the "social movement within a profession," which I posited in Chapter 4. Because terrorist organizations fail with frequency, both in terms of failed attacks and total organizational failure, in order to completely understand the process of professionalization, we also need to understand what happens when the social providers do not succeed. A critical part of the theorizing on this topic will need to be careful consideration for how failure should be defined.

Unlike many public administration applications of the theory of professionalization, my current theoretical work does not explicitly consider the characteristics of the individuals that actually make the decisions within terrorist organizations. While it is often challenging to personally identify individuals within terrorist organizations, given their covert nature, scholars are beginning to systematically collect data of this nature. The Rebel Organization Leaders (ROLE) database collected by Huang, Silverman, and Acosta (2022) may provide some leverage for testing theories related to how individual experiences shape decision making inside terrorist organizations.

Another viable research avenue is to consider what role unattached organizations play in the process of professionalization. As I discussed in Chapter 1, I largely leave organizations that are unattached to any parent organization outside the scope for this dissertation.While the unattached organizations receive relatively less consideration in this dissertation, I believe that organizations in this category may play a critical role in understanding the professionalization of terrorism. The unattached organizations are those that do not fall into into any of the categories defined in Figure 1.4. Further, by definition, unattached organizations are not parent organizations.

From a theoretical standpoint, the existence of unattached organizations is evidence that the professionalization process for terrorism is ongoing. Abbott (2014, 65) gives consideration to "nonprofessionals." He explains that while these individuals may have assimilated to a workplace with professionals (thereby adopting a knowledge of professional standards), that without the formal training "nonprofessionals" will still lack status in the jurisdiction. The discussion aligns nicely with the reality of unattached terrorist organizations. These unattached organizations can observe and mimic the professional work, but have yet to earn their credentialing. Another particularly important feature of an unattached organization is its capacity to enter the professionalization process in the future. Because an unattached organization does not maintain any attachment to a parent organization, the only pathways through which it can enter the professionalization process is by becoming an ally or rival of a parent organization.

Because unattached organizations share no formal or informal ties with the parent organiza-

tions, my initial argument is that any relationship between the parent and others will be the result of mimetic isophorism as described by DiMaggio and Powell (1983). This argument aligns with much of the existing terrorism literature that points to the spread of tactics through contagion or "learning processes." We might think of the unattached category as a pure emulation group. It may be an organization that is able to observe from afar and wants to align itself with the professionals, but may lack the necessary connections to become recognized as being part of the professionalized network. Drawing back to the original analogy, organizations in the unattached category are like first-aid trained professionals in the health care community. Further, because of the relative convergence on the tactics of bombings and armed assaults, I anticipate that terrorist organizations in the unattached category will maintain fairly standard tactical repertoires. I have more theoretical work to fully capture the role of unattached organizations, but I believe that an analysis of their role in the professionalization process for terrorism would offer a more complete theoretical explanation.

Related to both the level of current attachment as well as unattached organizations, another avenue for future consideration is how terrorist organizations move between the different types. For example, a parent organization exists when it maintains at least one affiliate, ally, or splinter organization. But under what circumstances do parent organizations lose their relationships and thus their social esteem? Further, under what circumstances does an unattached organization join the network of professionalization? Theories capturing the dynamic nature of the relationship types would align closely with reality and likely would be of interest to policymakers.

From the outset, I selected to use an inclusive definition for terrorism and terrorist organizations. In the introduction, I argued that the theory and empirical evidence set forth in this dissertation serve as a baseline for our understanding of professionalization in terrorism. Scholars with particular exclusion criteria can subset the organizations to further study the dynamics of professionalization. If we reflect back on the discussion of discriminate versus indiscriminate violence, some scholars purposely exclude subnational actors or groups that use discriminate violence from their studies of terrorism. Theories of professionalization may explain why some subnational ac-

tors or groups engage in discriminate violence and others do not. Further, actors or groups that engage in both discriminate and indiscriminate acts of violence may provide insights into the state of professionalization for terrorism. I would encourage scholars to find ways to refine the existing scope conditions to continue to determine if subsets of nonstate actors are more professionalized than others.

5.3 Returning to the Puzzle: What Happened to Vehicle Ramming Attacks?

Before I conclude, I want to return to the puzzle that motivated the manuscript: what happened to VRAs? I argued that existing theories of tactical selection fail to capture why VRAs did not permeate the repertoires of terrorist organizations more broadly. In this dissertation, I put forward two alternative explanations about why this may be the case. In Chapter 2, I argued, and found evidence supporting, that terrorist organizations are responsive to state repressive activities. The matching mechanism might account for why VRAs did not become a commonly used tactic. Under this mechanism, terrorist organizations are matching (or nearly matching) the action taken by the state. But the state does not use a tactic that is similar to VRAs in its repressive measures. The second mechanism referred to a revolutionary reaction. I argued that terrorist organizations would expand the number of tactics in their portfolios when facing torture or overall violations of physical integrity. It could be the case that VRAs were used as an expansive tactic under one or both of these conditions. If it is possible that terrorist organizations are responding under these conditions, then the lack of continued use would suggest that the states in question are no longer using torture or increasingly high levels of violations of physical integrity rights. However, we would need further evidence to make this claim with certainty.

In Chapters 3 and 4, I put forward an explanation related to professionalization. And while I did not find empirical support for my theory, it may still help answer the question at hand. Based on the theory presented in these chapters, one plausible reason that VRAs did not become a more commonly used take is that it was not used by parent terrorist organizations. As the parent orga-

nizations determine the jurisdiction and norms of the profession, their failure to adopt the VRAs suggests that such attacks fall outside the existing standards. Interestingly, all of the VRAs discussed in the introduction were claimed on behalf of ISIL. ISIL is a splinter organization. My theory suggests that by using VRAs that ISIL was attempting to redefine the jurisdiction of the occupation. The lack of uptake on the tactic suggests that the attempt to redefine the jurisdiction was unsuccessful. The case of VRAs could be a failure for a "social movement within a profession" to take hold.

5.4 The Final Word

In this dissertation, I argue that terrorist organizations select the tactics used in attacks based on their relationship with other actors. Specifically, terrorist organizations are influenced by their relationship with the state and other terrorist organizations. Empirical tests of the theory of terrorist organizations responsiveness to the state's use of repression suggests that terrorists are actively monitoring the actions taken by states to better their chances of survival. Then I pivoted to consider organization-to-organization dynamics and generated a theory of the professionalization of terrorism. While the empirical results did not support the theory, I argue that there is more work to be done to improve and retest the relationship. This manuscript contributes to understanding how the internal decision making processes of terrorist organizations are influenced by external relationships, and suggests many avenues for future research.

REFERENCES

Abbott, Andrew. 2014. *The system of professions: An essay on the division of expert labor*. University of Chicago press.

Abrahms, Max. 2006. "Why terrorism does not work." *International Security* 31 (2): 42–78.

Abrahms, Max. 2008. "What terrorists really want: Terrorist motives and counterterrorism strategy." *International Security* 32 (4): 78–105.

Abrahms, Max, and Justin Conrad. 2017. "The strategic logic of credit claiming: A new theory for anonymous terrorist attacks." *Security Studies* 26 (2): 279–304.

Abrahms, Max, and Matthew S Gottfried. 2016. "Does terrorism pay? An empirical analysis." *Terrorism and Political Violence* 28 (1): 72–89.

Acosta, Benjamin, and Kristen Ramos. 2017. "Introducing the 1993 terrorism and political violence dataset." *Studies in Conflict & Terrorism* 40 (3): 232–247.

Alakoc, Burcu Pinar. 2017. "Competing to kill: Terrorist organizations versus lone wolf terrorists." *Terrorism and Political Violence* 29 (3): 509–532.

Anderson, Christina, and M Sorensen. 2017. "Stockholm Truck Attack Kills 4; Terrorism Is Suspected." *The New York Times* .

URL: *https://www.nytimes.com/2017/04/07/world/europe/stockholm-attack.html*

Asal, Victor. 2012. "John Brown, American revolutionary war guerrillas in the South, the Treblinka Revolt, and the coding of terrorist organizations." *International Studies Review* 14 (3): 485–90.

Asal, Victor H, R Karl Rethemeyer, and Eric W Schoon. 2019. "Crime, conflict, and the legitimacy trade-off: Explaining variation in insurgents' participation in crime." *The Journal of Politics* 81 (2): 399–410.

Asal, Victor, Luis De la Calle, Michael Findley, and Joseph Young. 2012. "Killing civilians or holding territory? How to think about terrorism." *International Studies Review* 14 (3): 475–497.

Asal, Victor, Mitchell Brown, and Angela Dalton. 2012. "Why split? Organizational splits among ethnopolitical organizations in the Middle East." *Journal of Conflict Resolution* 56 (1): 94–117.

Asal, Victor, and R Karl Rethemeyer. 2008. "The nature of the beast: Organizational structures and the lethality of terrorist attacks." *The Journal of Politics* 70 (2): 437–449.

Atkinson, Carol. 2006. "Constructivist implications of material power: Military engagement and the socialization of states, 1972–2000." *International studies quarterly* 50 (3): 509–537.

Barnard, Chester I. 1968. *The functions of the executive*. Harvard university press.

BBCNews. 2016*a*. "Berlin lorry attack: What we know." *BBC News* .
URL: *https://www.bbc.com/news/world-europe-38377428*

BBCNews. 2016*b*. "Nice attack: What we know about the Bastille Day killings." *BBC News* .
URL: *https://www.bbc.com/news/world-europe-36801671*

BBCNews. 2018*a*. "Tajikistan 'attack' leaves four foreign cyclists dead." *BBC News* .
URL: *https://www.bbc.com/news/world-asia-45004059*

BBCNews. 2018*b*. "Westminster car crash: Man arrested on suspicion of terror offences." *BBC News* .
URL: *https://www.bbc.com/news/uk-45180120*

BBCNews. 2019. "London Bridge attack: What happened." *BBC News* .
URL: *https://www.bbc.com/news/uk-england-london-40147164*

Binder, Markus K, and Gary A Ackerman. 2021. "Pick your POICN: Introducing the profiles of incidents involving CBRN and non-state actors (POICN) database." *Studies in Conflict & Terrorism* 44 (9): 730–754.

Birkland, Thomas A. 1998. "Focusing Events, Mobilization, and Agenda Setting." *Journal of Public Policy* 18 (1): 53–74.

Blair, Christopher W, Erica Chenoweth, Michael C Horowitz, Evan Perkoski, and Philip BK Potter. 2021. "Honor Among Thieves: Understanding Rhetorical and Material Cooperation Among Violent Nonstate Actors." *International Organization* pp. 1–40.

Blau, Max, Emanuella Grinberg, and Shimon Prokupecz. 2016. "Investigators believe Ohio State attacker was inspired by ISIS." *CNN* .

URL: *https://www.cnn.com/2016/11/29/us/ohio-state-university-attack/index.html*

Blomberg, S Brock, Khusrav Gaibulloev, and Todd Sandler. 2011. "Terrorist group survival: ideology, tactics, and base of operations." *Public Choice* 149 (3): 441–463.

Blomberg, S. Brock, Rozlyn C Engel, and Reid Sawyer. 2010. "On the duration and sustainability of transnational terrorist organizations." *Journal of Conflict Resolution* 54 (2): 303–330.

Bloom, Mia. 2005. *Dying to kill: The allure of suicide terror*. Columbia University Press.

Blum, Andrew, Victor Asal, and Jonathan Wilkenfeld. 2005. "Nonstate actors, terrorism, and weapons of mass destruction." *International Studies Review* 7 (1): 133–137.

Böhmelt, Tobias, Abel Escribà-Folch, and Ulrich Pilster. 2019. "Pitfalls of professionalism? Military academies and coup risk." *Journal of Conflict Resolution* 63 (5): 1111–1139.

Böhmelt, Tobias, and Govinda Clayton. 2018. "Auxiliary force structure: Paramilitary forces and progovernment militias." *Comparative Political Studies* 51 (2): 197–237.

Box-Steffensmeier, Janet M, and Bradford Jones. 2004. *Event history modeling: A guide for social scientists*. Cambridge University Press.

Boyle, Michael J. 2020. "Weapon of choice: Terrorist bombings in armed conflict." *Studies in Conflict & Terrorism* pp. 1–21.

Brandt, Patrick T, and Todd Sandler. 2009. "Hostage taking: Understanding terrorism event dynamics." *Journal of Policy Modeling* 31 (5): 758–778.

Brehmer, Berndt, and Robert Allard. 1991. "Dynamic Decision Making: The Effects of Task Complexity and Feedback Delay." In *Distributed decision making: Cognitive models for cooperative work*, ed. Jens Rasmussen, Berndt Brehmer, and Jacques Leplat. John Wiley & Sons p. 319–334.

Brooks, Risa. 2013. "Abandoned at the palace: Why the Tunisian military defected from the Ben Ali regime in January 2011." *Journal of Strategic Studies* 36 (2): 205–220.

Brooks, Risa A. 2019. "Integrating the civil–military relations subfield." *Annual Review of Political*

Science 22: 379–398.

Bucher, Rue. 1962. "Pathology: A study of social movements within a profession." *Social problems* 10 (1): 40–51.

Bucher, Rue, and Anselm Strauss. 1961. "Professions in process." *American journal of sociology* 66 (4): 325–334.

Bueno de Mesquita, Ethan. 2013. "Rebel tactics." *Journal of Political Economy* 121 (2): 323–357.

Byman, Daniel. 2008. "Understanding proto-insurgencies." *Journal of Strategic Studies* 31 (2): 165–200.

Byman, Daniel. 2014. "Buddies or burdens? Understanding the Al Qaeda relationship with its affiliate organizations." *Security Studies* 23 (3): 431–470.

Cauley, Jon, and Eric Iksoon Im. 1988. "Intervention policy analysis of skyjackings and other terrorist incidents." *The American Economic Review* 78 (2): 27–31.

Chenoweth, Erica. 2013. "Terrorism and democracy." *Annual Review of Political Science* 16: 355–378.

Chenoweth, Erica, and Pauline L Moore. 2018. *The politics of terror*. Oxford University Press.

Chermak, Steven M, Joshua D Freilich, William S Parkin, and James P Lynch. 2012. "American terrorism and extremist crime data sources and selectivity bias: An investigation focusing on homicide events committed by far-right extremists." *Journal of quantitative criminology* 28 (1): 191–218.

Cingranelli, David L., David L. Richards, and K. Chad Clay. 2014. "The CIRI Human Rights Dataset.".

URL: *http://www.humanrightsdata.com/*

Cohen, Michael D, James G March, and Johan P Olsen. 1972. "A garbage can model of organizational choice." *Administrative science quarterly* pp. 1–25.

Conrad, Courtenay R, and Emily Hencken Ritter. 2019. *Contentious Compliance: Dissent and Repression Under International Human Rights Law*. Oxford University Press.

Conrad, Courtenay R., Jillienne Haglund, and Will H. Moore. 2013. "Disaggregating Torture Allegations: Introducing the Ill-Treatment and Torture (ITT) Country-Year Data." *International Studies Perspectives* 14 (2): 199–220.

Conrad, Justin, Kevin T Greene, Brian J Phillips, and Samantha Daly. 2021. "Competition from within: ethnicity, power, and militant group rivalry." *Defence and Peace Economics* 32 (6): 757–772.

Cook, Scott J., Betsabe Blas, Raymond J. Carroll, and Samiran Sinha. 2017. "Two Wrongs Make a Right: Addressing Underreporting in Binary Data from Multiple Sources." *Political Analysis* 25 (2): 223–240.

Cook, Scott J., and Nils B. Weidmann. 2019. "Lost in Aggregation: Improving Event Analysis with Report-Level Data." *American Journal of Political Science* 63 (1): 250–264.

Crenshaw, Martha. 1983. *Terrorism, legitimacy, and power: The consequences of political violence*. Wesleyan University Press Middletown, CT.

Criado, Henar. 2011. "Bullets and votes: Public opinion and terrorist strategies." *Journal of Peace Research* 48 (4): 497–508.

Cronin, Audrey Kurth. 2009. *How terrorism ends*. Princeton University Press.

Cronin, Audrey Kurth. 2019. *Power to the People: How Open Technological Innovation is Arming Tomorrow's Terrorists*. Oxford University Press.

De la Calle, Luis, and Ignacio Sánchez-Cuenca. 2011. "What we talk about when we talk about terrorism." *Politics & Society* 39 (3): 451–472.

De la Calle, Luis, and Ignacio Sánchez-Cuenca. 2015. "How armed groups fight: Territorial control and violent tactics." *Studies in Conflict & Terrorism* 38 (10): 795–813.

De Mesquita, Ethan Bueno. 2005. "The quality of terror." *American journal of political science* 49 (3): 515–530.

Diehl, Paul F. 2002. "Chasing Headlines: Setting the Research Agenda on War." *Conflict Management and Peace Science* 19 (1): 5–26.

Dietrich, Nick, and Kristine Eck. 2020. "Known unknowns: media bias in the reporting of political violence." *International Interactions* 46 (6): 1043–1060.

DiMaggio, Paul J., and Walter W. Powell. 1983. "The Iron Cage Revisited: Institutional Isomorphism and Collective Rationality in Organizational Fields." *American Sociological Review* 48 (2): 147–160.

Drakos, Konstantinos, and Andreas Gofas. 2006*a*. "The devil you know but are afraid to face: Underreporting bias and its distorting effects on the study of terrorism." *Journal of Conflict Resolution* 50 (5): 714–735.

Drakos, Konstantinos, and Andreas Gofas. 2006*b*. "In search of the average transnational terrorist attack venue." *Defence and Peace Economics* 17 (02): 73–93.

Dugan, Laura, and Erica Chenoweth. 2012. "Moving beyond deterrence: The effectiveness of raising the expected utility of abstaining from terrorism in Israel." *American Sociological Review* 77 (4): 597–624.

Dugan, Laura, Gary LaFree, and Alex R Piquero. 2005. "Testing a rational choice model of airline hijackings." *Criminology* 43 (4): 1031–1065.

Ellis, Patrick D. 2014. "Lone wolf terrorism and weapons of mass destruction: An examination of capabilities and countermeasures." *Terrorism and Political Violence* 26 (1): 211–225.

Enders, Walter, and Todd Sandler. 1993. "The Effectiveness of Antiterrorism Policies: A Vector-Autoregression-Intervention Analysis." *American Political Science Review* 87 (4): 829–844.

Enders, Walter, Todd Sandler, and Khusrav Gaibulloev. 2011. "Domestic versus transnational terrorism: Data, decomposition, and dynamics." *Journal of Peace Research* 48 (3): 319–337.

Eubank, William Lee, and Leonard Weinberg. 1994. "Does democracy encourage terrorism?" *Terrorism and Political Violence* 6 (4): 417–435.

Falkenrath, Richard. 2001. "Analytic models and policy prescription: Understanding recent innovation in US counterterrorism." *Studies in Conflict & Terrorism* 24 (3): 159–181.

Fariss, Christopher J. 2014. "Respect for human rights has improved over time: Modeling the

changing standard of accountability." *American Political Science Review* 108 (2): 297–318.

Fariss, Christopher J. 2019. "Yes, Human Rights Practices Are Improving Over Time." *American Political Science Review* pp. 1–14.

Fearon, James D. 1997. "Signaling foreign policy interests: Tying hands versus sinking costs." *The Journal of Conflict Resolution* 41 (1): 68–90.

Feaver, Peter D. 1999. "Civil-military relations." *Annual Review of Political Science* 2 (1): 211–241.

Findley, Michael G, and Joseph K Young. 2012*a*. "More combatant groups, more terror?: Empirical tests of an outbidding logic." *Terrorism and Political Violence* 24 (5): 706–721.

Findley, Michael G, and Joseph K Young. 2012*b*. "Terrorism and civil war: A spatial and temporal approach to a conceptual problem." *Perspectives on Politics* 10 (2): 285–305.

Finnegan, Patrick. 2019. "Professionalization of a nonstate actor: A case study of the provisional IRA." *Armed Forces & Society* 45 (2): 349–367.

Forest, James J. F. 2006. *Teaching terror : strategic and tactical learning in the terrorist world*. Rowman Littlefield.

Fortna, Virginia Page. 2015. "Do terrorists win? Rebels' use of terrorism and civil war outcomes." *International Organization* 69 (3): 519–556.

Fortna, Virginia Page, Nicholas J Lotito, and Michael A Rubin. 2022. "Terrorism in armed conflict: new data attributing terrorism to rebel organizations." *Conflict Management and Peace Science* 39 (2): 214–236.

Gade, Emily Kalah, Michael Gabbay, Mohammed M. Hafez, and Zane Kelly. 2019. "Networks of Cooperation: Rebel Alliances in Fragmented Civil Wars." *Journal of Conflict Resolution* 63 (9): 2071–2097.

Gaibulloev, Khusrav, and Todd Sandler. 2019. "What we have learned about terrorism since 9/11." *Journal of Economic Literature* 57 (2): 275–328.

Gaibulloev, Khusrav, and Todd Sandler. 2021*a*. "Determinants of Home-Base Attacks by Terrorist

Groups." *Defence and Peace Economics* 32 (6): 644–663.

Gaibulloev, Khusrav, and Todd Sandler. 2021*b*. "On Terrorist Groups: An Introduction." *Defence and Peace Economics* 32 (6): 637–643.

Gaibulloev, Khusrav, and Todd Sandler. 2022. "Common myths of terrorism." *Journal of Economic Surveys* .

Genç Yılmaz, Ayfer. 2022. "The Missing Piece of the Puzzle: The EMASYA Protocol and Civil-Military Relations in Turkey." *Armed Forces & Society* p. 0095327X211066570.

Goerzig, Carolin. 2019. "Terrorist learning in context–the case of Al Qaeda in the Islamic Maghreb." *Critical Studies on Terrorism* 12 (4): 629–648.

Goetzmann, William N., and Alok Kumar. 2008. "Equity portfolio diversification." *Review of Finance* 12 (3): 433–463.

Goldstein, Robert Justin. 1978. *Political Repression in Modern America from 1870 to the Present*. Schenkman.

Greig, J. Michael, and Andrew J. Enterline. 2017. "National Material Capabilities (NMC) Data Documentation Version 5.0.".

Grossman, Guy, Devorah Manekin, and Dan Miodownik. 2015. "The political legacies of combat: Attitudes toward war and peace among Israeli ex-combatants." *International Organization* 69 (4): 981–1009.

Guardian. 2017. "Vehicle and Knife Attack in Edmonton Is Described as Terrorism." *The Guardian* .

URL: *https://www.theguardian.com/us-news/2017/nov/01/truck-attack-in-new-york-city-what-we-know-so-far*

Gunaratna, Rohan. 2006. "Ideology in terrorism and counter terrorism: Lessons from Al Qaeda." In *The ideological war on terror*. pp. 39–52.

Gurr, Nadine, and Benjamin Cole. 2002. *The new face of terrorism: Threats from weapons of mass destruction*. IB Tauris.

Gurr, Ted Robert. 1971. *Why Men Rebel*. Routledge.

Gutiérrez-Sanín, Francisco, and Elisabeth Jean Wood. 2017. "What should we mean by "pattern of political violence"? Repertoire, targeting, frequency, and technique." *Perspectives on Politics* 15 (1): 20–41.

Harmon, Stephen. 2010. "From GSPC to AQIM: The evolution of an Algerian islamist terrorist group into an Al-Qa 'ida Affiliate and its implications for the Sahara-Sahel region." *Concerned Africa Scholars* 85: 12–29.

Hendrix, Cullen S. 2010. "Measuring state capacity: Theoretical and empirical implications for the study of civil conflict." *Journal of peace research* 47 (3): 273–285.

Hendrix, Cullen S., and Joseph K. Young. 2014. "State capacity and terrorism: A two-dimensional approach." *Security Studies* 23 (2): 329–363.

Herrera, Yoshiko M, and Devesh Kapur. 2007. "Improving data quality: actors, incentives, and capabilities." *Political Analysis* 15 (4): 365–386.

Heyman, Edward, and Edward Mickolus. 1980. "Observations on" Why Violence Spreads"." *International Studies Quarterly* 24 (2): 299–305.

Hirschman, Albert O. 1970. *Exit, voice, and loyalty: Responses to decline in firms, organizations, and states*. Vol. 25 Harvard university press.

Hoffman, Bruce. 2018. *Inside terrorism*. Columbia university press.

Horowitz, Michael C. 2010. "Nonstate actors and the diffusion of innovations: The case of suicide terrorism." *International Organization* 64 (1): 33–64.

Horowitz, Michael C, and Allan C Stam. 2014. "How prior military experience influences the future militarized behavior of leaders." *International Organization* 68 (3): 527–559.

Horowitz, Michael C, Allan C Stam, and Cali M Ellis. 2015. *Why leaders fight*. Cambridge University Press.

Horowitz, Michael C., Evan Perkoski, and Philip B.K. Potter. 2018. "Tactical diversity in militant violence." *International Organization* 72 (1): 139–171.

Horowitz, Michael C, and Philip BK Potter. 2014. "Allying to kill: Terrorist intergroup cooperation and the consequences for lethality." *Journal of Conflict Resolution* 58 (2): 199–225.

Hou, Dongfang. 2021. "The Formation of Terrorist Groups: An Empirical Analysis." *Defence and Peace Economics* 32 (6): 698–707.

Hou, Dongfang, Khusrav Gaibulloev, and Todd Sandler. 2020. "Introducing extended data on terrorist groups (EDTG), 1970 to 2016." *Journal of Conflict Resolution* 64 (1): 199–225.

Huang, Reyko, Daniel Silverman, and Benjamin Acosta. 2022. "Friends in the Profession: Rebel Leaders, International Social Networks, and External Support for Rebellion." *International Studies Quarterly* 66 (1): sqab085.

Huff, Connor, and Joshua D Kertzer. 2018. "How the public defines terrorism." *American Journal of Political Science* 62 (1): 55–71.

Huntington, Samuel P. 1981. *The soldier and the state: The theory and politics of civil–military relations*. Harvard University Press.

Janowitz, Morris. 2017. *The professional soldier: A social and political portrait*. Simon and Schuster.

Jenkins, Bonnie. 2006. "Combating nuclear terrorism: Addressing nonstate actor motivations." *The ANNALS of the American Academy of Political and Social Science* 607 (1): 33–42.

Jensen, Michael. 2013. "Discussion point: The benefits and drawbacks of methodological advancements in data collection and coding: Insights from the Global Terrorism Database (GTD)." *National Consortium for the Study of Terrorism and Responses to Terrorism* .

URL: *https://start.umd.edu/news/discussion-point-benefits-and-drawbacks-methodological-advancements-data-collection-and-coding*

Jervis, Robert. 2017. *Perception and Misperception in International Politics: New Edition*. Princeton University Press.

Jo, Hyeran, Joshua K Alley, Yohan Park, and Soren Jordan. 2021. "Signaling restraint: international engagement and rebel groups' commitment to international law." *International Interac-*

tions 47 (5): 928–954.

Jones, Seth G, and Martin C Libicki. 2008. *How terrorist groups end: Lessons for countering al Qa'ida*. Vol. 741 Rand Corporation.

Kandil, Hazem. 2014. *Soldiers, spies, and statesmen: Egypt's road to revolt*. Verso Books.

Kertzer, Joshua D, and Dustin Tingley. 2018. "Political psychology in international relations: beyond the paradigms." *Annual Review of Political Science* 21: 319–339.

Kettle, Louise, and Andrew Mumford. 2017. "Terrorist learning: A new analytical framework." *Studies in Conflict & Terrorism* 40 (7): 523–538.

Kingdon, John W. 1984. *Agendas, Alternatives, and Public Policies*. Little Brown.

Klotzbücher, Valentin, Tim Krieger, and Daniel Meierrieks. 2021. "Class warfare: Political exclusion of the poor and the roots of social-revolutionary terrorism, 1860-1950.".

Kydd, Andrew H, and Barbara F Walter. 2006. "The strategies of terrorism." *International security* 31 (1): 49–80.

LaFree, Gary. 2010. "The global terrorism database (GTD) accomplishments and challenges." *Perspectives on Terrorism* 4 (1): 24–46.

LaFree, Gary. 2019. "The evolution of terrorism event databases." In *The Oxford Handbook of Terrorism*, ed. Erica Chenoweth, Richard English, Andreas Gofas, and Stathis N Kalyvas. Oxford University Press chapter Chapter 4, pp. 50–68.

LaFree, Gary, and Laura Dugan. 2007. "Introducing the global terrorism database." *Terrorism and Political Violence* 19 (2): 181–204.

LaFree, Gary, Laura Dugan, and Erin Miller. 2014. *Putting terrorism in context: Lessons from the Global Terrorism Database*. Routledge.

Laqueur, Walter. 1977*a*. *Guerrilla: A Historical and Critical Study*. Little, Brown.

Laqueur, Walter. 1977*b*. *Terrorism*. Little, Brown.

Lee, Chia-yi. 2013. "Democracy, civil liberties, and hostage-taking terrorism." *Journal of Peace Research* 50 (2): 235–248.

Levin, Dan. 2017. "Vehicle and Knife Attack in Edmonton Is Described as Terrorism." *The New York Times* .

URL: *https://www.nytimes.com/2017/10/01/world/americas/edmonton-canada-terrorism.html*

Li, Quan. 2005. "Does democracy promote or reduce transnational terrorist incidents?" *Journal of Conflict resolution* 49 (2): 278–297.

Lindblom, Charles E. 1959. "The science of Muddling Through." *Public Administration Review* 19 (2): 79–88.

Macdonald, Julia. 2018. "The Most Surprising Thing About the Venezuela Drone Attack Is That It Hasn't Happened Sooner." *Political Violence @ a Glance* .

URL: *https://politicalviolenceataglance.org/2018/09/04/the-most-surprising-thing-about-the-venezuela-drone-attack-is-that-it-hasnt-happened-sooner/*

Makarenko, Tamara. 2004. "The crime-terror continuum: tracing the interplay between transnational organised crime and terrorism." *Global crime* 6 (1): 129–145.

Makarenko, Tamara, and Michael Mesquita. 2014. "Categorising the crime–terror nexus in the European Union." *Global Crime* 15 (3-4): 259–274.

March, James G., and Herbert A. Simon. 1958. *Organizations*. Wiley.

Markowitz, Harry. 1971. *Portfolio selection: efficient diversification of investments*. YALE University Press.

Marshall, Monty G., Ted Robert Gurr, and Keith Jaggers. 2018. "Polity IV Project: Political Regime Characteristics and Transitions, 1800-2017." *Dataset Users' Manual. Available online: http://www. systemicpeace. org/polity (accessed on 2 October 2019)* .

McCann, Wesley S. 2020. "Who said we were terrorists? Issues with terrorism data and inclusion criteria." *Studies in Conflict & Terrorism* pp. 1–21.

McCormick, Gordon H. 2003. "Terrorist decision making." *Annual Review of Political Science* 6 (1): 473–507.

Mendelsohn, Barak. 2015. *The al-Qaeda Franchise: the Expansion of al-Qaeda and its Conse-*

quences. Oxford University Press.

Merari, Ariel. 1993. "Terrorism as a Strategy of Insurgency." *Terrorism and political violence* 5 (4): 213–251.

Metelits, Claire M. 2009. "The consequences of rivalry: Explaining insurgent violence using fuzzy sets." *Political Research Quarterly* 62 (4): 673–684.

Metz, Steven. 2007. *Rethinking insurgency*. Strategic Studies Institute, US Army War College.

Midlarsky, Manus I, Martha Crenshaw, and Fumihiko Yoshida. 1980*a*. "Rejoinder to" Observations on'Why Violence Spreads'"." *International Studies Quarterly* 24 (2): 306–310.

Midlarsky, Manus I, Martha Crenshaw, and Fumihiko Yoshida. 1980*b*. "Why violence spreads: The contagion of international terrorism." *International Studies Quarterly* 24 (2): 262–298.

Mintz, Alex, Nehemia Geva, Steven B. Redd, and Amy Carnes. 1997. "The Effect of Dynamic and Static Choice Sets on Political Decision Making: An Analysis Using the Decision Board Platform." *American Political Science Review* 91 (3): 553–566.

Moghadam, Assaf, Ronit Berger, and Polina Beliakova. 2014. "Say terrorist, think insurgent: Labeling and analyzing contemporary terrorist actors." *Perspectives on Terrorism* 8 (5): 2–17.

Molnar, Andrew R, Jerry M Tinker, and John D LeNoir. 1966. Human factors considerations of undergrounds in insurgencies. Technical report AMERICAN UNIV WASHINGTON DC CENTER FORRESEARCH IN SOCIAL SYSTEMS.

Musa, Sallek Yaks, and Lindy Heinecken. 2022. "The effect of military (un) professionalism on civil-military relations and security in Nigeria." *African Security Review* pp. 1–17.

Nanes, Matthew, and Trevor Bachus. 2021. "Walls and Strategic Innovation in Violent Conflict." *Journal of Conflict Resolution* 65 (6): 1131–1158.

Nassif, Hicham Bou. 2015. "A military besieged: The armed forces, the police, and the party in Bin Ali's Tunisia, 1987–2011." *International Journal of Middle East Studies* 47 (1): 65–87.

National Consortium for the Study of Terrorism and Responses to Terrorism (START). 2021*a*. "Codebook: Methodology, Inclusion Criteria, and Variables." Global Terrorism Database.

URL: *https://www.start.umd.edu/gtd/downloads/Codebook.pdf*

National Consortium for the Study of Terrorism and Responses to Terrorism (START). 2021*b*. "Global Terrorism Database." Global Terrorism Database.

URL: *https://www.start.umd.edu/gtd/*

Nemeth, Stephen C, and Jacob A Mauslein. 2019. "Geography and the certainty of terrorism event coding." *Journal of Global Security Studies* 4 (2): 227–240.

Olcott, Martha Brill, and Bakhtiyar Babajanov. 2003. "The terrorist notebooks." *Foreign Policy* (135): 30–40.

Olson Lounsbery, Marie. 2016. "Foreign military intervention, power dynamics, and rebel group cohesion." *Journal of global security studies* 1 (2): 127–141.

Olson, Mancur. 2009. *The logic of collective action*. Harvard University Press.

Olsthoorn, Peter. 2013. "Loyalty and Professionalization in the Military." *New wars and new soldiers: military ethics in the contemporary world* pp. 257–72.

Pape, Robert A. 2003. "The strategic logic of suicide terrorism." *American Political Science Review* 97 (3): 343–361.

Pape, Robert Anthony. 2006. *Dying to win: The strategic logic of suicide terrorism*. Random House Incorporated.

Perkoski, Evan. 2015. *Organizational fragmentation and the trajectory of militant splinter groups*. University of Pennsylvania.

Phillips, Brian J. 2015. "What is a terrorist group? Conceptual issues and empirical implications." *Terrorism and Political Violence* 27 (2): 225–242.

Phillips, Brian J. 2017. "Deadlier in the US? On lone wolves, terrorist groups, and attack lethality." *Terrorism and Political Violence* 29 (3): 533–549.

Phillips, Brian J. 2018. "Terrorist tactics by criminal organizations: The Mexican case in context." *Perspectives on terrorism* 12 (1): 46–63.

Phillips, Brian J. 2019. "Terrorist Organizational Dynamics." In *The Oxford Handbook of Ter-*

rorism, ed. Erica Chenoweth, Richard English, Andreas Gofas, and Stathis N Kalyvas. Oxford University Press chapter Chapter 25, pp. 385–400.

Piazza, James A. 2021. "The Impact of Rural-Urban Economic Disparities on Terrorist Organizations' Survival and Attacks." *Defence and Peace Economics* 32 (6): 726–741.

Polo, Sara MT. 2020. "How terrorism spreads: emulation and the diffusion of ethnic and ethnoreligious terrorism." *Journal of conflict resolution* 64 (10): 1916–1942.

Polo, Sara MT, and Kristian Skrede Gleditsch. 2016. "Twisting arms and sending messages: Terrorist tactics in civil war." *Journal of Peace Research* 53 (6): 815–829.

Powell, Stephen R, and Adrian Florea. 2021. "Introducing the Armed Nonstate Actor Rivalry Dataset (ANARD)." *Civil Wars* pp. 1–30.

Rasler, Karen, and William R Thompson. 2009. "Looking for waves of terrorism." *Terrorism and political violence* 21 (1): 28–41.

Richardson, Alan J. 1987. "Professionalization and intraprofessional competition in the Canadian accounting profession." *Work and Occupations* 14 (4): 591–615.

Richardson, Louise. 2007. *What terrorists want: Understanding the enemy, containing the threat*. Random House.

Rogers, Everett M. 2003. *Diffusion of Innovations*. 5th ed. Free Press.

Rogers, William. 1994. "Regression standard errors in clustered samples." *Stata technical bulletin* 3 (13).

Sánchez-Cuenca, Ignacio, and Luis De la Calle. 2009. "Domestic terrorism: The hidden side of political violence." *Annual Review of Political Science* 12: 31–49.

Sandler, Todd, and John L Scott. 1987. "Terrorist success in hostage-taking incidents: An empirical study." *Journal of Conflict Resolution* 31 (1): 35–53.

Savage, Jesse Dillon, and Jonathan D Caverley. 2017. "When human capital threatens the Capitol: Foreign aid in the form of military training and coups." *Journal of Peace Research* 54 (4): 542–557.

Schelling, Thomas C. 1966. *Arms and Influence*. Yale University Press.

Schmid, Alex P. 2011. *The Routledge handbook of terrorism research*. Taylor & Francis.

Schmid, Alex Peter, and Albert J Jongman. 2005. *Political terrorism: A research guide to concepts, theories, data bases and literature*. Transaction Publishers.

Shannon, Claude Elwood. 1948. "A mathematical theory of communication." *Bell system technical journal* 27 (3): 379–423.

Shapiro, Jacob N. 2012. "Terrorist decision-making: insights from economics and political science." *Perspectives on Terrorism* 6 (4/5): 5–20.

Shapiro, Jacob N. 2013. *The terrorist's dilemma: Managing violent covert organizations*. Princeton University Press.

Smelser, Neil J. 2009. *The faces of terrorism*. Princeton University Press.

Smith-Spark, Laura. 2017. "Deadly Barcelona attack is worst in a day of violence in Spain." *CNN* .

URL: *https://www.cnn.com/2017/08/17/europe/barcelona-las-ramblas-van-hits-crowd/index.html*

Soules, Michael J. 2022. "Martyr or mystery? Female suicide bombers and information availability." *Studies in Conflict & Terrorism* 45 (1): 62–91.

Staniland, Paul. 2014. *Networks of rebellion*. Cornell University Press.

Tamm, Henning. 2016. "Rebel leaders, internal rivals, and external resources: How state sponsors affect insurgent cohesion." *International Studies Quarterly* 60 (4): 599–610.

Teodoro, Manuel P. 2011. *Bureaucratic ambition: Careers, motives, and the innovative administrator*. JHU Press.

Tilly, Charles. 2003. *The Politics of Collective Violence.* Cambridge University Press.

Tilly, Charles. 2004. "Terror, terrorism, terrorists." *Sociological theory* 22 (1): 5–13.

Tilly, Charles, and Sidney G. Tarrow. 2015. *Contentious Politics*. 2nd ed. Paradigm Publishers.

Tokdemir, Efe, Evgeny Sedashov, Sema Hande Ogutcu-Fu, Carlos E Moreno Leon, Jeremy

Berkowitz, and Seden Akcinaroglu. 2020. "Rebel rivalry and the strategic nature of rebel group ideology and demands." *Journal of Conflict Resolution* p. 0022002720967411.

Tschantret, Joshua, Yufan Yang, and Hoshik Nam. 2021. "An Analysis of Terrorist Group Formation, 1860—1969." *Defence and Peace Economics* 32 (6): 664–680.

Tversky, Amos, and Daniel Kahneman. 1974. "Judgment under Uncertainty: Heuristics and Biases." *Science* 185 (4157): 1124–1131.

Tzu, Sun. 2008. *The art of war*. Routledge.

Vittori, Jodi. 2009. "All struggles must end: The longevity of terrorist groups." *Contemporary Security Policy* 30 (3): 444–466.

Weinstein, Jeremy M. 2006. *Inside rebellion: The politics of insurgent violence*. Cambridge University Press.

Wilensky, Harold L. 1964. "The professionalization of everyone?" *American Journal of Sociology* 70 (2): 137–158.

Wilson, James Q. 1989. *Bureaucracy: What government agencies do and why they do it*. Basic Books.

Wilson, Margaret A. 2000. "Toward a model of terrorist behavior in hostage-taking incidents." *Journal of Conflict Resolution* 44 (4): 403–424.

Wolfendale, Jessica. 2007. *Torture and the military profession*. Springer.

Yi, Joowon. n.d. "Demand for Statehood: The Case of Native Military Recruitment in World War II." Working Paper.

URL: *https://www.joowonyi.com/*$_f iles/ugd/79f890_f 18e34f45a7d4a31815442cdbd05388d.pdf$

Young, Joseph K, and Michael G Findley. 2011. "Can peace be purchased? A sectoral-level analysis of aid's influence on transnational terrorism." *Public Choice* 149 (3): 365–381.

APPENDIX A

CHAPTER 1: SUPPLEMENTARY MATERIALS

Table A.1: Definition Comparisons

	Element	Schimd & Jongman (2005)	Enders, Sandler & Gaibulloev (2011)	Bondarenko (2022)
1	Violence, force	✓	✓	✓
2	Political	✓	✓& social	✓& social, economic, religious
3	Planned, systematic, organized action	✓	✓	✓
4	Threat	✓	✓	✓
5	Victim-target differentiation	✓	✓	✓
6	Coercion, extortion, induction of compliance	✓	✓	✓
7	Publicity aspect	✓		
8	Arbitrariness; impersonal; indiscriminate	✓		
9	Civilians, noncombatants as victims	✓	✓	✓
10	Intimidation	✓	✓	✓
11	Group/organization as perpetrator	✓& individuals, state	✓& individuals, state-sponsored	✓& individuals
12	Symbolic aspect	✓	✓	✓
13	Clandestine, covert nature	✓& semi-		
14	Repetitive, campaign of violence	✓		
15	Criminal	✓& idiosyncratic		
16	Demands made on third parties	✓	✓	✓

APPENDIX B

CHAPTER 2: SUPPLEMENTARY MATERIALS

Table B.1: Models & Samples

#	**Model**	**Sample**
1	Baseline	Full
2	Country Only	Country Only
3	Baseline	Country Only
4	Age Only	Age Only
5	Country Only	Age Only
6	Organizations	Organizations
7	Age Only	Organizations
8	Country + Age	Country + Age
9	Organizations	Country + Age
10	Full	Country + Organizations
11	Country + Age	Country + Organizations

Table B.2: Covariates by Model

Model	**Covariates Included**
Baseline	Lagged DV Lagged IV Year Fixed Effects
Country Only	Baseline Covariates Polity2 Logged GDPPC Logged CINC Logged Infant Mortality Logged Population
Age Only	Baseline Covariates Age Age^2
Organizations	Age Only Covariates Hierarchical Leadership Number of Allied Organizations Number of Rival Organizations Leftist Ideology Nationalist Ideology
Country + Age	Country Only Covariates Age Only Covariates
Full	Country Only Covariates Organizations Covariates

Note: Standard errors clustered at the country-level.

Table B.3: Logit Model Results for Hypothesis H1a

	Dependent variable: Assassination										
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Assassination$_{t-1}$	2.45***	2.43***	2.46***	2.58***	2.56***	2.28***	2.29***	2.54***	2.28***	2.17***	2.18***
	(0.12)	(0.12)	(0.12)	(0.20)	(0.21)	(0.42)	(0.42)	(0.20)	(0.42)	(0.39)	(0.40)
Extrajudicial Killings$_{t-1}$	0.58***	0.62***	0.57***	0.40	0.50*	2.20*	2.18*	0.47*	2.20*	1.74	1.76
	(0.15)	(0.15)	(0.15)	(0.21)	(0.22)	(1.08)	(1.08)	(0.21)	(1.08)	(1.10)	(1.10)
Country Covariates:											
Polity2		0.02			0.02			0.02		-0.00	-0.00
		(0.01)			(0.02)			(0.02)		(0.03)	(0.03)
GDPPC (log)		0.06			0.11			0.08		-0.10	-0.10
		(0.12)			(0.15)			(0.16)		(0.58)	(0.57)
CINC (log)		-0.21			-0.42*			-0.37		0.07	0.01
		(0.15)			(0.20)			(0.20)		(0.44)	(0.40)
Infant Mortality (log)		-0.01			-0.13			-0.06		0.24	0.21
		(0.18)			(0.21)			(0.20)		(0.76)	(0.74)
Population (log)		0.23			0.39*			0.34		0.02	0.05
		(0.15)			(0.20)			(0.19)		(0.40)	(0.39)
Organization Covariates:											
Age				0.02		-0.13**	-0.14**	0.02	-0.13**	-0.13**	-0.12**
				(0.03)		(0.05)	(0.05)	(0.03)	(0.05)	(0.04)	(0.05)
Age^2				0.00		0.00**	0.00***	0.00	0.00**	0.00***	0.00***
				(0.00)		(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Hierarchical Structure						-0.21			-0.21	-0.38	
						(0.55)			(0.55)	(0.60)	

# of Allies						-0.02			-0.02	-0.01	
						(0.05)			(0.05)	(0.05)	
# of Rivals						-0.44			-0.44	-0.24	
						(0.46)			(0.46)	(0.43)	
Left						0.08			0.08	-0.24	
						(0.61)			(0.61)	(0.67)	
Nationalist						-0.15			-0.15	-0.16	
						(0.25)			(0.25)	(0.47)	
Observations	10040	9906	9906	6823	6797	720	720	6797	720	720	720

Note: *p<0.1; **p<0.05; ***p<0.01

Table B.4: Logit Model Results for Hypothesis H1b

	Dependent variable: Hostage Incident										
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Hostage$_{t-1}$	2.92***	2.89***	2.93***	2.87***	2.78***	2.44***	2.50***	2.77***	2.44***	2.25***	2.27***
	(0.19)	(0.18)	(0.19)	(0.21)	(0.22)	(0.31)	(0.33)	(0.21)	(0.31)	(0.32)	(0.34)
Disappearances$_{t-1}$	0.82***	0.70***	0.82***	0.72***	0.58**	1.03***	1.00**	0.54**	1.03***	0.34	0.29
	(0.14)	(0.18)	(0.14)	(0.19)	(0.21)	(0.31)	(0.34)	(0.19)	(0.31)	(0.39)	(0.41)
Country Covariates:											
Polity2		0.03			0.02			0.03		0.03	0.03
		(0.01)			(0.02)			(0.02)		(0.04)	(0.04)
GDPPC (log)		-0.04			0.06			0.02		-0.19	-0.24
		(0.11)			(0.13)			(0.13)		(0.33)	(0.34)
CINC (log)		-0.27*			-0.61***			-0.56***		-0.77*	-0.79*
		(0.12)			(0.16)			(0.16)		(0.36)	(0.40)
Infant Mortality (log)		0.06			0.07			0.14		-0.09	-0.14
		(0.17)			(0.18)			(0.17)		(0.45)	(0.45)
Population (log)		0.21			0.43**			0.39**		0.76*	0.74*
		(0.12)			(0.15)			(0.15)		(0.35)	(0.37)
Organization Covariates:											
Age				0.01		0.00	-0.02	0.01	0.00	-0.01	-0.01
				(0.02)		(0.04)	(0.04)	(0.02)	(0.04)	(0.04)	(0.04)
Age^2				0.00		0.00	0.00	0.00	0.00	0.00	0.00
				(0.00)		(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Hierarchical Structure						0.04			0.04	-0.15	
						(0.30)			(0.30)	(0.31)	

# of Allies						0.02			0.02	0.03	
						(0.04)			(0.04)	(0.04)	
# of Rivals						-0.34			-0.34	-0.05	
						(0.21)			(0.21)	(0.22)	
Left						-0.26			-0.26	-0.37	
						(0.48)			(0.48)	(0.50)	
Nationalist						-0.64*			-0.64*	-0.29	
						(0.31)			(0.31)	(0.41)	
Observations	10041	9909	9909	6822	6796	720	720	6796	720	720	720

Note: *p<0.1; **p<0.05; ***p<0.01

Table B.5: Logit Model Results for Hypothesis H1c

	Dependent variable: Hostage Incident										
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Hostage$_{t-1}$	3.00***	2.95***	3.02***	2.93***	2.83***	2.63***	2.69***	2.81***	2.63***	2.27***	2.27***
	(0.20)	(0.20)	(0.21)	(0.23)	(0.24)	(0.35)	(0.38)	(0.21)	(0.35)	(0.34)	(0.35)
Political Imprisonment$_{t-1}$	0.85***	0.78***	0.86***	0.86***	0.59**	1.11*	1.13*	0.63***	1.11*	0.98*	1.09*
	(0.14)	(0.19)	(0.15)	(0.18)	(0.19)	(0.50)	(0.53)	(0.19)	(0.50)	(0.51)	(0.51)
Country Covariates:											
Polity2		0.03*			0.02			0.03		0.03	0.04
		(0.01)			(0.02)			(0.02)		(0.04)	(0.04)
GDPPC (log)		-0.00			0.09			0.06		-0.08	-0.09
		(0.12)			(0.14)			(0.13)		(0.35)	(0.36)
CINC (log)		-0.35*			-0.68***			-0.65***		-0.98*	-1.03*
		(0.14)			(0.17)			(0.17)		(0.40)	(0.41)
Infant Mortality (log)		0.06			0.07			0.14		-0.06	-0.09
		(0.19)			(0.20)			(0.17)		(0.42)	(0.42)
Population (log)		0.31*			0.53**			0.49**		0.95*	0.96*
		(0.13)			(0.17)			(0.16)		(0.38)	(0.40)
Organization Covariates:											
Age				0.01		-0.00	-0.04	0.01	-0.00	-0.01	-0.01
				(0.02)		(0.05)	(0.05)	(0.02)	(0.05)	(0.04)	(0.04)
Age^2				0.00		0.00	0.00	0.00	0.00	0.00	0.00
				(0.00)		(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Hierarchical Structure						0.16			0.16	-0.16	
						(0.29)			(0.29)	(0.32)	

# of Allies						-0.00			-0.00	0.03	
						(0.05)			(0.05)	(0.04)	
# of Rivals						-0.48*			-0.48*	-0.08	
						(0.22)			(0.22)	(0.21)	
Left						0.13			0.13	-0.23	
						(0.59)			(0.59)	(0.50)	
Nationalist						-0.47			-0.47	-0.16	
						(0.32)			(0.32)	(0.40)	
Observations	10026	9892	9892	6807	6781	720	720	6781	720	720	720

Note: $^{*}p<0.1$; $^{**}p<0.05$; $^{***}p<0.01$

Table B.6: OLS Regression Model Results for Hypothesis H1d

	Dependent variable: Number of Tactics										
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
# of Tactics$_{t-1}$	0.70***	0.70***	0.70***	0.70***	0.69***	0.76***	0.76***	0.70***	0.76***	0.73***	0.73***
	(0.02)	(0.02)	(0.02)	(0.03)	(0.03)	(0.04)	(0.04)	(0.03)	(0.04)	(0.04)	(0.04)
Torture$_{t-1}$	0.09**	0.10**	0.09**	0.09*	0.08	0.23*	0.23**	0.08	0.23*	0.16	0.16
	(0.03)	(0.03)	(0.03)	(0.04)	(0.05)	(0.09)	(0.08)	(0.05)	(0.09)	(0.11)	(0.11)
Country Covariates:											
Polity2		0.01*			0.01*			0.01		0.02	0.01
		(0.00)			(0.00)			(0.00)		(0.01)	(0.01)
GDPPC (log)		-0.02			-0.01			-0.01		-0.05	-0.08
		(0.02)			(0.03)			(0.03)		(0.09)	(0.10)
CINC (log)		0.00			-0.06			-0.06		-0.03	-0.02
		(0.03)			(0.03)			(0.03)		(0.10)	(0.11)
Infant Mortality (log)		-0.02			-0.02			-0.01		0.01	-0.02
		(0.04)			(0.04)			(0.04)		(0.13)	(0.14)
Population (log)		0.01			0.05			0.04		0.06	0.04
		(0.02)			(0.03)			(0.03)		(0.11)	(0.11)
Organization Covariates:											
Age				0.02***		-0.01	-0.02	0.02***	-0.01	-0.01	-0.01
				(0.00)		(0.02)	(0.02)	(0.00)	(0.02)	(0.02)	(0.01)
Age^2				-0.00***		0.00	0.00	-0.00***	0.00	0.00	0.00
				(0.00)		(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Hierarchical Structure						-0.00			-0.00	-0.05	
						(0.12)			(0.12)	(0.13)	

# of Allies						-0.00			-0.00	-0.00	
						(0.01)			(0.01)	(0.01)	
# of Rivals						-0.10			-0.10	-0.04	
						(0.06)			(0.06)	(0.06)	
Left						-0.05			-0.05	-0.19	
						(0.19)			(0.19)	(0.18)	
Nationalist						-0.07			-0.07	-0.09	
						(0.09)			(0.09)	(0.08)	
Observations	10048	9914	9914	6825	6799	720	720	6799	720	720	720

Note: $^{*}p<0.1$; $^{**}p<0.05$; $^{***}p<0.01$

Table B.7: Negative Binomial Model Results for Hypothesis H1d (Robustness Check)

	Dependent variable: Number of Tactics										
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
# of Tactics$_{t-1}$	0.54***	0.53***	0.54***	0.55***	0.54***	0.45***	0.45***	0.54***	0.45***	0.43***	0.43***
	(0.01)	(0.01)	(0.01)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Torture$_{t-1}$	0.11	0.15*	0.12	0.05	0.07	2.82*	2.80*	0.06	2.82*	2.66*	2.63*
	(0.06)	(0.07)	(0.06)	(0.08)	(0.09)	(1.14)	(1.14)	(0.09)	(1.14)	(1.14)	(1.13)
Country Covariates:											
Polity2		0.01			0.01			0.01		0.03	0.02
		(0.00)			(0.01)			(0.01)		(0.02)	(0.02)
GDPPC (log)		-0.05			-0.02			-0.02		-0.09	-0.13
		(0.04)			(0.05)			(0.05)		(0.10)	(0.10)
CINC (log)		0.04			-0.03			-0.03		0.15	0.13
		(0.05)			(0.06)			(0.06)		(0.14)	(0.16)
Infant Mortality (log)		-0.06			-0.03			-0.03		0.10	0.05
		(0.04)			(0.05)			(0.05)		(0.12)	(0.13)
Population (log)		-0.01			0.03			0.03		-0.12	-0.12
		(0.05)			(0.06)			(0.07)		(0.14)	(0.15)
Organization Covariates:											
Age				-0.01		-0.01	-0.01	-0.01	-0.01	-0.02	-0.01
				(0.01)		(0.02)	(0.02)	(0.01)	(0.02)	(0.02)	(0.02)
Age^2				0.00		0.00	0.00	0.00	0.00	0.00	0.00
				(0.00)		(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Hierarchical Structure						0.12			0.12	0.08	
						(0.08)			(0.08)	(0.08)	

# of Allies						-0.01			-0.01	-0.01	
						(0.01)			(0.01)	(0.02)	
# of Rivals						-0.10			-0.10	-0.07	
						(0.07)			(0.07)	(0.06)	
Left						-0.08			-0.08	-0.25	
						(0.17)			(0.17)	(0.17)	
Nationalist						-0.07			-0.07	-0.14	
						(0.12)			(0.12)	(0.12)	
Observations	10048	9914	9914	6825	6799	720	720	6799	720	720	720

Note: *p<0.1; **p<0.05; ***p<0.01

Figure B.1: Torture Coefficient Plot (Robustness Check)

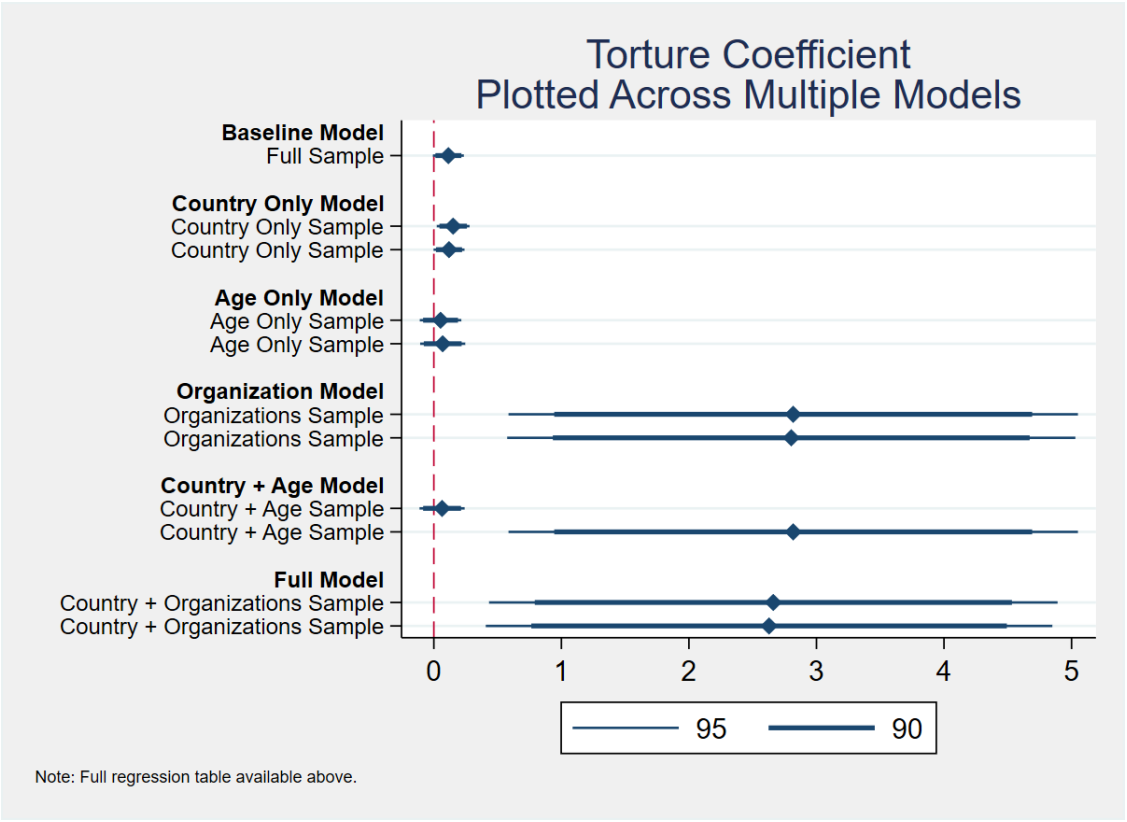


Table B.8: OLS Regression Model Results for Hypothesis H1e

	Dependent variable: Number of Tactics										
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
# of Tactics$_{t-1}$	0.69***	0.69***	0.69***	0.69***	0.68***	0.73***	0.73***	0.69***	0.73***	0.71***	0.71***
	(0.02)	(0.02)	(0.02)	(0.03)	(0.03)	(0.04)	(0.04)	(0.03)	(0.04)	(0.04)	(0.04)
Physical Integrity$_{t-1}$	0.02***	0.03***	0.02***	0.02***	0.03***	0.07***	0.07***	0.03***	0.07***	0.10***	0.09**
	(0.00)	(0.01)	(0.00)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.03)	(0.03)
Country Covariates:											
Polity2		0.01*			0.01			0.01		0.02	0.01
		(0.00)			(0.00)			(0.00)		(0.01)	(0.01)
GDPPC (log)		0.01			0.03			0.02		0.11	0.07
		(0.02)			(0.03)			(0.03)		(0.11)	(0.12)
CINC (log)		-0.03			-0.09*			-0.09*		-0.29**	-0.26*
		(0.03)			(0.04)			(0.04)		(0.10)	(0.12)
Infant Mortality (log)		-0.03			-0.04			-0.03		0.00	-0.04
		(0.03)			(0.04)			(0.04)		(0.13)	(0.14)
Population (log)		0.03			0.07*			0.07		0.26**	0.23*
		(0.03)			(0.04)			(0.04)		(0.09)	(0.10)
Organization Covariates:											
Age				0.02***		-0.01	-0.01	0.02***	-0.01	-0.02	-0.01
				(0.00)		(0.02)	(0.02)	(0.00)	(0.02)	(0.02)	(0.02)
Age^2				-0.00**		0.00	0.00	-0.00**	0.00	0.00	0.00
				(0.00)		(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Hierarchical Structure						-0.03			-0.03	-0.03	
						(0.12)			(0.12)	(0.13)	

# of Allies						-0.00			-0.00	-0.01	
						(0.01)			(0.01)	(0.01)	
# of Rivals						-0.10			-0.10	-0.06	
						(0.07)			(0.07)	(0.05)	
Left						-0.07			-0.07	-0.23	
						(0.16)			(0.16)	(0.17)	
Nationalist						-0.10			-0.10	-0.10	
						(0.08)			(0.08)	(0.08)	
Observations	10011	9879	9879	6802	6776	720	720	6776	720	720	720

Note: $^{*}p<0.1$; $^{**}p<0.05$; $^{***}p<0.01$

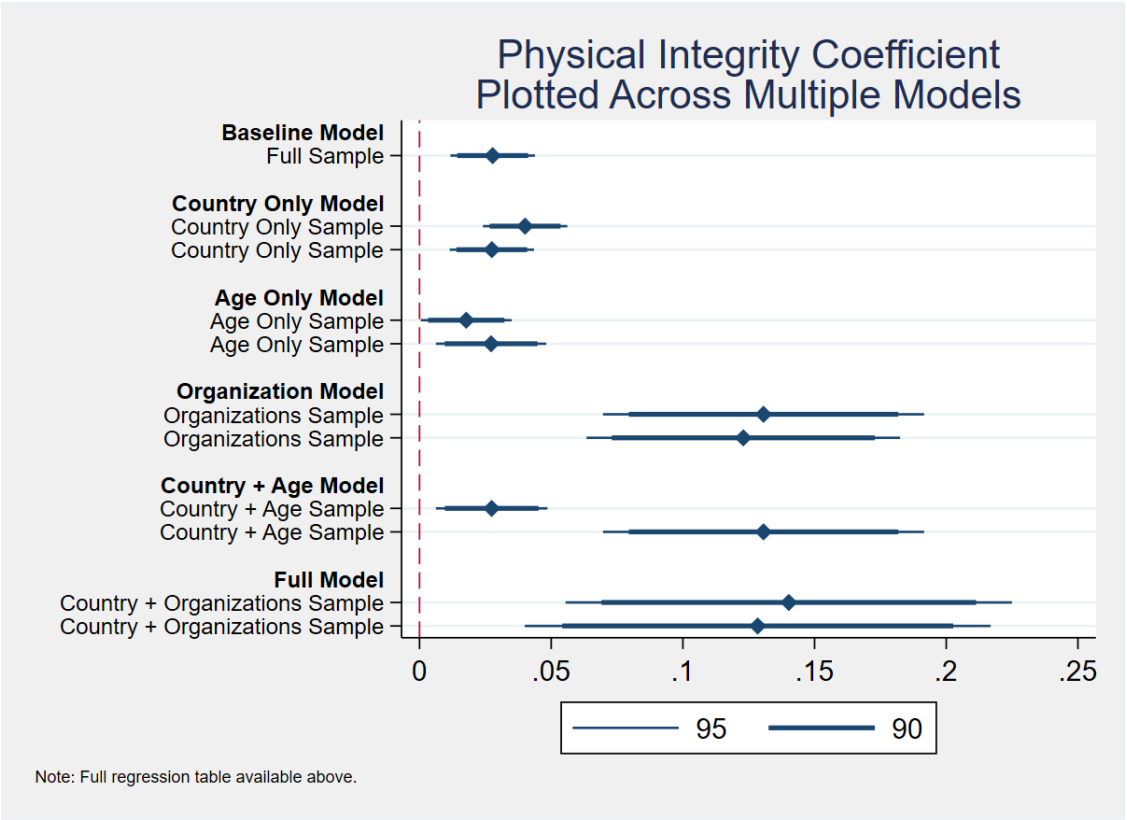
Table B.9: Negative Binomial Model Results for Hypothesis H1e (Robustness Check)

	Dependent variable: Number of Tactics										
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
# of Tactics$_{t-1}$	0.53***	0.52***	0.53***	0.54***	0.54***	0.42***	0.42***	> 0.54***	0.42***	0.41***	0.41***
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	> (0.02)	(0.02)	(0.02)	(0.02)
Physical Integrity$_{t-1}$	0.03***	0.04***	0.03***	0.02*	0.03*	0.13***	0.12***	0.03*	0.13***	0.14**	0.13**
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.03)	(0.03)	(0.01)	(0.03)	(0.04)	(0.05)
Country Covariates:											
Polity2		0.01			0.01			0.01		0.03*	0.03
		(0.00)			(0.01)			(0.01)		(0.01)	(0.01)
GDPPC (log)		-0.02			0.01			0.01		0.02	-0.04
		(0.04)			(0.05)			(0.05)		(0.11)	(0.11)
CINC (log)		0.01			-0.06			-0.05		-0.06	-0.06
		(0.04)			(0.06)			(0.06)		(0.13)	(0.15)
Infant Mortality (log)		-0.07*			-0.04			-0.04		0.07	0.02
		(0.04)			(0.05)			(0.05)		(0.13)	(0.14)
Population (log)		0.01			0.05			0.05		0.01	0.00
		(0.04)			(0.06)			(0.06)		(0.12)	(0.13)
Organization Covariates:											
Age				-0.01		-0.01	-0.01	-0.01	-0.01	-0.02	-0.01
				(0.01)		(0.02)	(0.02)	(0.01)	(0.02)	(0.02)	(0.02)
Age^2				0.00		0.00	0.00	0.00	0.00	0.00	0.00
				(0.00)		(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Hierarchical Structure						0.08			0.08	0.09	
						(0.07)			(0.07)	(0.07)	

# of Allies						-0.01			-0.01	-0.02	
						(0.02)			(0.02)	(0.02)	
# of Rivals						-0.10			-0.10	-0.09	
						(0.06)			(0.06)	(0.05)	
Left						-0.23			-0.23	-0.28	
						(0.14)			(0.14)	(0.16)	
Nationalist						-0.16			-0.16	-0.16	
						(0.11)			(0.11)	(0.10)	
Observations	10011	9879	9879	6802	6776	720	720	6776	720	720	720

Note: *p<0.1; **p<0.05; ***p<0.01

Figure B.2: Physical Integrity Coefficient Plot (Robustness Check)



APPENDIX C

DATA USED IN THE DISSERTATION

C.1 A Discussion on Data

The data used in this dissertation are drawn from a number of readily available resources. And while the data provided a number of insights into how terrorist organizations make tactical selections, it is important to consider the quality of the data when analyzing the results. As Herrera and Kapur (2007, 366) write “When data quality slips in political science or when political scientists are insufficiently critical about the way their data were created or how they should be used, very little happens. Inattentiveness to data quality is, unfortunately, business as usual in political science." In an effort to avoid “business as usual," I provide an analysis of the GTD database as well as some ideas for improving several of the measures that I used throughout the dissertation. The goal of this discussion is highlight the improvements that could be made in the analyses presented in this dissertation if and when better quality data become available.

C.1.1 Benefits and Drawbacks of Using the GTD

The Global Terrorism Database (GTD) is curated by the National Consortium for the Study of Terrorism and Responses to Terrorism (START) at the University of Maryland. GTD reflects data on terrorist attacks. The data are drawn primarily from media reports, which are publicly available and unclassified. In addition, the GTD data are collected “. . . to a lesser extent, [from] existing data sets, secondary source materials such as books and journals, and legal documents” (National Consortium for the Study of Terrorism and Responses to Terrorism (START), 2021*a*, 3). The data are generated through the use of both automated and manual data collection processes (National Consortium for the Study of Terrorism and Responses to Terrorism (START), 2021*a*, 10). In order to be included in the dataset, an attack must be attempted, although it need not be

successful (National Consortium for the Study of Terrorism and Responses to Terrorism (START), 2021*a*, 13). Substantively, plots or conspiracies for attacks are not included in the data. The attack or threat of attack must be active, even if it is unsuccessful or thwarted, in order to be captured in the data. Jensen (2013) and LaFree (2019) provide a through review of the updated data collection process used by START researchers to generate the dataset.

There are some potential drawbacks to consider when using an dataset generated primarily from publicly available sources, particularly those drawn from media reporting. When an event-level dataset is collected from media sources, researchers need to be aware of potential biases induced in both the reporting and recording of events (LaFree and Dugan, 2007; Cook et al., 2017; Cook and Weidmann, 2019). The first concern comes from media reporting of terrorist activities. Falkenrath (2001) and Hoffman (2018) explain that media tend to be attracted to rare, yet highly consequential events. Terrorist attacks can fall in this category (Hoffman, 2018; Chenoweth, 2013). Although, not all terrorist attacks are highly consequential. Chermak et al. (2012) argue that small and unsuccessful attacks are often ignored in the media. Therefore, we might see under-reporting on terrorist attacks that are of little consequence. Attacks of little consequence may be those that are unsuccessful, small in scale, or thwarted by military or law enforcement intervention.

In addition to media coverage, another media reporting concern is that the GTD draws from international media reports. Therefore, locations with unavailable or unreliable media outlets will be systematically under-reported in the data (Drakos and Gofas, 2006*a*,*b*). The START research team recognizes the issue of under-reporting remains committed to continually identifying the full corpus of reliable media outlets globally (LaFree and Dugan, 2007, 188). Some regions of the world are particularly at-risk for under-reporting in the media. Dietrich and Eck (2020), for example, find that African countries suffer from a media bias in under-reporting information on political violence. In the current, full GTD dataset, approximately 39% of all events are located in African countries. If the under-reporting bias extends to coverage of terrorist activities in African countries, the actual number of events should be greater for the region. Further, countries that

lack media freedom may fail to report dissident activity and political violence, to include terrorist activities. Further, Nemeth and Mauslein (2019) find that the START research team codes a greater number events as terrorist attacks when those events are located closer to populated areas, which the authors call a “description bias." This description bias is likely an issue of both media reporting and processing/recording.

A further concern is with the manner in which the media reports are processed and recorded. During the data processing, START researchers use a machine learning process to cull all available media reports and remove any duplicate reports on a singular event National Consortium for the Study of Terrorism and Responses to Terrorism (START) (2021*a*); Jensen (2013). Cook and Weidmann (2019) explain that the process of reducing event-level data into a single observation from multiple reports is that it can introduce bias into the data. Aggregating the data from multiple sources disregards variation across the reporting, which may be of value to the research community. Cook et al. (2017) propose a methodological solution that allows researchers to model both the causes of and reporting on event-level data.

Beyond the concerns of generating the data using media sources, the GTD data are missing some critical elements. During the transition from paper files to electronic files, the entire corpus of attacks for 1993 were lost. While several efforts attempted to recover the lost information, the data remain incomplete due to challenges with retrospective collection from media sources (LaFree and Dugan, 2007; LaFree, 2010; Dugan and Chenoweth, 2012). The main GTD dataset, which I used in my analysis, does not include the data for 1993. Some of the 1993 data are available now, but it is estimated to only include 15% of the attacks (National Consortium for the Study of Terrorism and Responses to Terrorism (START), 2021*a*, 4). The prevailing norm among researchers is to ignore the missing data from 1993, which generates a threat to inference. Acosta and Ramos (2017) code the 1993 data in a manner consistent with the GTD coding schematic; however, the use of their data has yet to be systematically used by researchers.[1] I support the recommendation

[1] A review of the citation count for the data shows only 26 citations. While citations counts are a crude measure of

from McCann (2020) for START researchers to integrate the work done by Acosta and Ramos (2017) into the full GTD dataset.

In addition to the missing data from 1993, LaFree and Dugan (2007) acknowledge that the dataset does not include information on the state's use of terror, government responses to events, or information on group responsible for the attack (beyond identifying the name). On the first issue, while the GTD data originally did not include state actions of terror, the "Doubt Terrorism Proper" filter discussed in Chapter 2 does now code for the option of state terror. Second, while the GTD data do not code government responses to events, other researchers have coded such data on a smaller scale. For example, Dugan and Chenoweth (2012) code government-terrorist interactions between Israel and Palestine from 1987-2004. Further work along the lines of tracking government-terrorist interactions would improve our understanding of the dynamics between the two groups. One the third limitation of not including terrorist group information, other scholars are contributing to overcome this weakness. For example, Hou, Gaibulloev, and Sandler (2020) provide covariates on several hundred terrorist groups. The authors specifically generated the data using GTD as the basis, which links the datasets together.

While GTD has some known limitations, it remains one of the most comprehensive and thorough datasets used to study terrorist activity LaFree and Dugan (2007); LaFree (2019); McCann (2020). The data temporal and spatial data coverage provide researchers with nearly global coverage of terrorist activities nearly 50 years. Although the data may include under-reporting, all other event-level datasets for terrorist activities suffer from the same issue. We should express some caution in our findings using the data as a result. Furthermore, I am encouraged that the research community is actively working to overcome the potential limitations. In addition to some of the solutions discussed earlier, scholars such as Fortna, Lotito, and Rubin (2022) are finding ways to improve the GTD to study terrorism in the context of armed conflict. As scholars continue to improve the GTD data and make refinements that are necessary to test specific theories, our collec-

the use of the data, it does provide some insight into the usage of the data.

tive understanding of terrorist activities will continue to grow. By engaging with the predominate dataset in the field, I help to contribute to our knowledge accumulation, even if in a small manner.

C.1.2 Improvements to Organization-Level Measures

As discussed above, Hou, Gaibulloev, and Sandler (2020) selected the terrorist organizations to include in the EDTG data based on those represented in GTD. The authors specifically made this choice as a means to connect the two datasets together. One limitation with the EDTG data is that there are slight variations in the naming conventions, relative to the GTD data. For example, EDTG records “al Qaeda," whereas GTD records “al Qaida." This limitation is problematic when scholars want to link the datasets, which must be done using the group names. As the authors continue to update and expand the data, I would encourage a closer examination at the way that group names are recorded in the original GTD data. Updating the data in this manner presents another opportunity for researchers to engage with the START research team for greater academic collaboration.

I argue that we also need more comprehensive and thorough data on terrorist organizations that is updated periodically. Hou, Gaibulloev, and Sandler (2020) recognized this issue as well and noted that prior to the release of the EDTG data, many scholars were still relying heavily on the organization-level information released by Jones and Libicki (2008). One challenge with capturing organization-level measures is that terrorist organizations retain an incentive to remain covert organizations (LaFree and Dugan, 2007; Shapiro, 2012; Hou, Gaibulloev, and Sandler, 2020). Because the organizations want to remain covert, researchers are unable to systematically record the internal dynamics and structures of these organizations. Take, for example, the organization-level covariates used in Chapter 2. The models presented in this chapter use a crude measure for the strategic aims and goals of terrorist organizations: mainly the ideological leanings of the organizations.[2] The data are measured as binary indicators of the ideological leanings of the organization (i.e., left, nationalist, religious). This type of measurement does not account for specific goals that

[2]Thank you to Dr. Hyeran Jo for raising this particular issue with me during a conversation regarding my work.

each individual organization may be hoping to achieve. Furthermore, it imposes a singular ideology onto organizations. Data availability for terrorist organizations is a particularly thorny issue that the literature must overcome to continue driving our understanding forward (Shapiro, 2013; Phillips, 2019; Hou, Gaibulloev, and Sandler, 2020). As such measures become available, I can return to the models and provide a more thorough results.

C.1.3 Improvements to Data on Government Repression

A better test for the proposed hypotheses in the first empirical chapter is that terrorist organizations would be responding to specific instances of extrajudicial killings, disappearances, and political imprisonment rather than global actions taken within a country measured annually. Systematically matching terrorist organization and government actions to specific events has proven difficult. Although, as discussed above, some researchers have been able to do so on a smaller scope.

Another potential concern with the analysis presented in the first empirical chapter is that the data may not be optimally suited to capture the underlying dynamic in the complex process suggested by the theory. In particular, I am concerned about the coarseness of the key independent variable, state repression. I argue the most pressing concern regarding the data is the measurement of state repression, which is currently captured by the CIRI data on a three-point scale. As Table 2.2 shows, the CIRI data attenuates the variation in state repression by coding state repression activities as categorical rather than continuous variables. In fairness to the team curating the CIRI data, the U.S. Department of State and Amnesty International documents upon which the data are collected may be vague regarding specific counts for each type of state repression activity because observation of such activities is often limited. Researchers and policymakers are working to improve the available measures for state repression (See for example: Fariss, 2014, 2019; Hendrix, 2010; Hendrix and Young, 2014). As the measurements for state repression continue to improve, we will be better positioned to test when and how terrorist organizations respond to differing levels

of repressive state actions. This paper should serve as an additional data point for why improved measures of state repression are necessary.