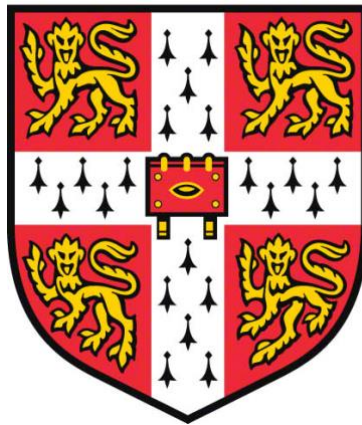


# **Kidnappings by violent political groups:**

## **Explaining between-group and within-group variations**



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This thesis is submitted for the degree of  
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## **Declarations**

This thesis is the result of my own work and includes nothing which is the outcome of work done in collaboration except as declared in the preface and specified in the text. It is not substantially the same as any work that has already been submitted before for any degree or other qualification at the University of Cambridge or any other universities and research institutions. The work contained here was under the supervision of Professor Manuel Eisner and conducted at the Institute of Criminology, Faculty of Law, at the University of Cambridge since October 2016.

As per requirement by the Faculty of Law Degree Committee, this thesis, including footnotes, does not exceed the permitted word limit of 80,000 words, exclusive of figures, tables, appendices and references.

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## Summary

Kidnapping is one of the most common tactics employed by violent political groups. It yields money, political concession, publicity, intimidation effects, among many others. However, notable violent political groups differ significantly in how frequently they engage in kidnappings. Meanwhile, even avid kidnapping groups show episodes of particularly high numbers of kidnappings committed in particular years. This PhD thesis focuses on this specific phenomenon and aims to probe an explanation for the differences and changes in kidnapping activities among/within violent political groups.

Violent political groups use kidnapping for a broad range of purposes. Kidnapping is also known to be particularly costly for its logistic complexity and intensive need for human resources. As such, the decision by violent political groups to engage in kidnappings is likely influenced by multiple considerations and causal mechanisms. Existing literature and policymakers have mainly considered kidnappings as a strategy for coercive bargaining to pursue ransom income or political concessions. This thesis, however, focuses on the role of governance in an extra-legal context. Where the state's monopoly of violence is contested by the presence of violent political groups, efforts to establish one's political power and governance may necessitate the use of kidnappings to impose and enforce rules for social and political control. For example, one may use kidnappings to enforce "taxation" and "protection" rackets, smuggling of goods, to expel or punish individuals disrupting social orders or working against the groups' interests.

To test this proposed extra-legal governance mechanism that may influence violent political groups' engagement in kidnappings, this thesis examined the associations between a

set of organisational factors – measuring different facets of extra-legal governance – and the numbers of kidnappings committed by violent political groups. Analyses were conducted both for the variations among different violent political groups and the temporal changes within-groups, using data from the Global Terrorism Database (GTD) and the Big Allied and Dangerous Version 2. Block-wise multiple linear regressions and path analyses were conducted to analyse the between-group variations, and fixed effect regressions were performed to examine the within-group changes.

Findings from both the between-group and within-group analyses support the notion that extra-legal governance is a relevant factor for explaining kidnappings by violent political groups. In particular, organised forms of illicit financing (e.g., extortion, smuggling, drug-trafficking) – theorised as an essential aspect of governance in an extra-legal context – is significantly associated with both the between-group and within-group variations in kidnappings. Provision of public social services (e.g., education, health, transportation, security) is a significant predictor for whether kidnappings are committed in the within-group analyses but not in the between-group analyses. Moreover, findings from this PhD research also echoed what was found in prior studies – highlighting the importance of mechanisms other than extra-legal governance on kidnappings, namely, group capacity and social learning from ones' allies.

In addition to findings on the main research question discussed above, this thesis also examined patterns of missingness in perpetrators' identity among the GTD kidnappings. This is a necessary step to assess the potential sampling bias caused by the systematic exclusion of GTD kidnappings without information on perpetrators' identity in the analyses of the main research question. Based on descriptive analyses and logistic regression models, this study found that perpetrators' identity information was not missing at random among the GTD

kidnappings. Instead, they followed certain temporal and geographic trends. Incident-level characteristics also significantly predicted the missingness in perpetrator identity, such as whether ransom was requested, the types of weapons used, event fatalities. The potential sampling bias caused by missingness in perpetrators' identity is a common issue present in all studies using datasets developed from open-source information. Analyses on missingness in this thesis provide valuable insights into possible ways research findings may be influenced by the selection process of publishing and collecting open-source information by datasets like the GTD.

Despite the limitation identified in the missing data analyses, this PhD research provides important preliminary evidence suggesting that kidnappings may be related to the general exertion of political power and social control by violent political groups in extra-legal contexts. The apparent monetary gains and political concessions may not provide a complete picture in explaining the root cause of kidnappings in violent political campaigns. Future research and policymakers should consider the possible role of extra-legal governance in the theoretical explanation of kidnappings and the respective prevention strategies.

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# Chapter 1

## Introduction

### 1.1 Kidnappings by Violent Political Groups: An Overview

Kidnapping, or hostage-taking, is nothing new in human history. The phenomenon of forceful taking and captivity of human beings, for varying purposes, has been well-documented in numerous historical texts. Notable stories include the abduction and rape of Sabine women by Romulus, the founder and first king of Rome, and his fellow men at the early stage of the establishment of Rome (Miles, 1995); the Cilician pirates' abduction of the 25-year-old Julius Caesar for a ransom of 50 talents in 75 BC, which ended up going very wrong for the abductors<sup>1</sup> (Britannica, n.d.) and the great turmoil of the Lionhearted King, Richard I, who was kidnapped by the Duke of Austria upon his return from The Third Crusade. King Richard I was handed over to the Roman Emperor Henry VI, who obtained a huge ransom of 150,000 marks for his release to England (Gillingham, 2008). Scholars have widely documented the historical use of abductions and kidnappings for financial enrichment, for coercive diplomacy by political powers, or to forcefully acquire human capital, especially women for sexual exploitation and reproductive purposes (Dunn, 2013; Turshen, 2002). The taking of human hostages, sometimes voluntarily and referred to as "hostage-surety," is also a common practice in

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<sup>1</sup> Upon his release, Julius Caesar soon organised his men and chased down the pirates, who were imprisoned and crucified.

medieval Europe to assure a trust of the fulfilment of promises and agreements (Bemmer, 2016; Kosto, 2012).

However, hostage-taking and kidnappings has become a tactic particularly associated with political extremism and terrorism since the late 1960s and 1970s, with a series of high-profile kidnappings of politicians and diplomats, hijackings and seizure of embassy personnel (Baumann, 1973; Crenshaw, 1998; MacWillson, 1992; Peterson, 1978; Wilson, 2000). A notable example is the two consecutive abductions, in October 1970, by the Quebec nationalist group, the Quebec Liberation Front (FLQ), of the British diplomat James Cross, and subsequently of Pierre Laporte, the Quebec Deputy Premier. Laporte was murdered after unfruitful negotiation attempts from the FLQ to obtain the release of their imprisoned members, while James Cross was eventually released unharmed (Wainstein, 1977). Another infamous case is the kidnapping of Aldo Moro, the former Prime Minister and president of the Christian Democracy party at the time, by the Red Brigades on March 16, 1978. During his 54 days of captivity, Moro was made to stand a “people’s trial” and make “confession” statements. He was eventually killed when the government kept refusing to respond to the Red Brigades’ request for the release of their imprisoned members (Moss, 1981).

The relevance of hostage-taking and kidnappings to the contemporary scene of political violence and terrorism continues to this date. On 13 November 2015, a group of armed terrorists raided the Bataclan theatre – one of a series of attacks launched in different locations in Paris that night. An unidentified number of people were taken hostage for a few hours by the terrorists in a siege with the law enforcement officers inside the theatre and were eventually executed in cold blood as the attackers were heard shouting “Allāhu Akbar” (Ray, n.d.). In the same year, the Japanese hostage Kenji Goto was brutally beheaded by his captors, the Islamic State of Iraq and Syria (ISIS), soon after a demand was made for a 200 million USD ransom

and the release of ISIS former fighters imprisoned in Jordan. In 2014 Boko Haram kidnapped over 200 schoolgirls, the majority of whom remain missing with their fate unknown. These kidnapping incidents often make news headlines and attract extensive media coverage due to the dramatic nature of the events and the contingency of human lives at stake.

Between the year 1970 to 2018, the Global Terrorism Database (GTD) documented a total of 12,138 kidnapping events committed in the context of political violence, involving a total number of 92,982 hostages (GTD, 2019). The true magnitude of the kidnapping phenomenon caused by violent political campaigns at a global scale can only be much greater, as kidnappings are widely noted to suffer under-reporting (Forest, 2012a; Gilbert, 2020b). Although kidnapping remains a less prevalent tactic among the documented attacks by violent political groups compared to bombing and armed assaults, recent decades have witnessed an increased number of kidnappings, committed by a larger number of violent political groups around the world (Forest, 2012a). The *Terrorism Country Reports* issued by the US Department of State (2015) also identified a worrying trend of increased kidnappings involving large numbers of hostages. Moreover, patterns of occurrence for kidnappings committed in the context of political violence show notable concentrations across perpetrating groups, geographic regions and temporal periods. Descriptive studies of macro-level trends of kidnappings found a small number of groups committing particularly high numbers of kidnappings, while many of their counterparts engaged in little or no kidnappings at all (Forest, 2012a; Forest, 2012b; Gilbert, 2020b). Some geographic areas became epidemic centres of kidnappings at different historical time periods, for example, the Central American and Caribbean region in the mid-1980s, South America and



Southeast Asia in the 1990s, the Middle East and North Africa in the 2000s following the Iraq War (*see* Cordesman, 2006; Forest, 2012a; Pires et al., 2014; Williams, 2009).

Despite a massive increase in the amount of academic interest and publications on political violence and terrorism observed in recent decades (Schuurman, 2020; Silke, 2008; Young & Findley, 2011), many have taken note of the relative scarcity of studies dedicated to the understanding the phenomenon of kidnappings (*see* Farrington, 1980; Forest, 2012a; Gilbert, 2020b; Kachynova, 2015; Lee, 2013; Pires et al., 2014). The limited amount of literature on kidnappings by violent political groups has focused on assessing the psychological effects of victimisation by kidnapping events (Jameson, 2010; Tade et al., 2020); predicting the fate of the hostages (Phillips, 2015; Oyewole, 2016; Yun & Roth, 2008); discussing the negotiation and reactive strategies by governmental authorities (Braten et al., 2015; Dolnik, 2003; Dolnik & Fitzgerald, 2011; Faure, 2003; Foy, 2015; Kim, 2008; Miller, 1980); examining the effectiveness of the no-concession policy (Brandt & Sandler, 2009; Mellon, 2017; Poe, 1988) or the respective police training on hostage-taking negotiation (Miron & Goldstein 1979) among others. These studies have greatly advanced our understanding of the dynamics of kidnappings, their effects and consequences and the immediate policy implications for governmental authorities. However, much remains unknown about what makes violent political groups engage in kidnappings in the first place.

The existing literature on kidnappings in the context of political violence has predominantly taken the approach that kidnappings are primarily motivated by either financial gains or political concessions (e.g., Briggs, 2001; Dolnik, 2003; Moss, 1981; O'Brien, 2012; Otis, 2014; Pauwels, 2016; Turner, 1998; Tzanelli, 2006). But is this a sufficient explanatory framework for us to understand the causes of kidnapping? Although some studies took note of the existence and importance of kidnappings that are not primarily oriented towards negotiating

for financial or political gains (e.g., Forest, 2012a; Kachynova, 2015; Wilson, 2018), few have gone one step further to consider what the implications are for our understanding of the motivation and causes of kidnappings by violent political groups. Why do violent political groups engage in kidnappings? What are the factors and conditions that make a group more prone to engage in kidnappings than other groups, and what are the changes that would prompt a group to change its level of engagement in kidnappings? What are the possible causal mechanisms that influence groups' variations in kidnapping activities? Does the empirical evidence provide any support for an alternative explanation of kidnappings beyond financial enrichment via ransom and political concessions? These are the questions this PhD study aims to address.

Kidnapping not only threatens the physical and mental well-being of the individual hostages involved in the event, it also tears apart families and traumatises the wider communities. It allows the perpetrators to kill, to rape, to torture, to enslave, to extract intelligence, to stage propaganda, and to coerce other concerned parties to cooperate and comply to their requests and desires. Understanding why violent political groups engage in kidnappings bears fundamental importance to envisage effective prevention strategies for the international community. This thesis aims to contribute to this much-needed area of research by trying to identify the factors and possible underlying mechanisms that influence violent political groups' kidnapping activities.

In the remainder of this chapter, I will first discuss the definitions and boundaries for the key concepts involved in my research questions; then explain my main theoretical interest in explaining kidnappings by violent political groups, which will be empirically examined in this PhD study. Finally, I will provide an overview of the study's design, the research aims to be achieved in my empirical analyses and outline a road map to each chapter of this thesis.

## 1.2 Definitions and Scope of the Project

This thesis focuses on kidnappings committed by violent political groups. For the following chapters, I define “violent political groups” as non-state actors with some organisational capacity (e.g., a notable group of members, some organisational structure) that are committed to a strategy of using violence to advance their political cause, which may be manifested as a pursuit of changes in one or more of the social, political, economic or religious spheres. This definition necessarily reflects the inclusion criteria of the GTD (2019) as it is a primary source of empirical data relied upon in this thesis, such as the exclusion of state-sponsored political violence, interpreting “political cause” to include the pursuit of social, political, economic or religious goals. This approach in defining violent political groups is also consistent with existing literature on non-state actors in political violence and terrorism (e.g., Aydinli, 2016; Gilbert, 2020b; Thomas & Bond, 2015).

Under this definition, violent political groups may include actors who have been often termed in the broader political science literature as rebels, insurgents, guerrillas or terrorist groups. These groups may be drawn into a political campaign of violence for a variety of causes. Common types of political causes include: fighting for ethnic autonomy and succession from an existing state; overthrowing an existing regime to establish a new one consistent with one’s ideology (e.g., creating a caliphate ruled by Sharia laws, a communist regime implementing Marxists social-economic ideals, etc.); practising global jihadism by attacking targets of Western countries and culture; expelling foreign occupation and ending imperialist exploitation; seeking social policy changes without overthrowing an existing regime, such as far-right white supremacist groups (Kydd & Walter, 2006; Thomas & Bond, 2015).

However, the term “violent political groups,” as currently defined, excludes certain types of perpetrators based on a number of different grounds. First, a violent political group has to be a non-state actor, so it does not include any coercive apparatus of a state or paramilitaries directly employed by state authorities. As such, state-sponsored disappearances and kidnappings are excluded from the scope of this study. However, this is to be distinguished from the situation where violent political actors receive financial or military aid from interested external states to fight against the regimes of their hosting countries, which is not uncommon in the world of organised political violence and within the scope of this study. Readers will see discussions in the later chapters on the role of external sponsorship on groups’ engagement in kidnappings, especially external state sponsorship.

Second, the “organisational capacity” requirement of being a violent political group means that “lone-wolf” terrorists or individuals unaffiliated with any organisations will not be included in the scope of the study. Moreover, violent political groups are comprised of people bonded together by an organisational structure for the common purposes of implementing a violent strategy to achieve political aims. This should be distinguished from the situation where people participating in mass events in social or political movements ended up being connected by an occurrence of violence itself, such as violent protests, social unrests and riots induced by social-political causes (*see* discussions on group-based political violence and terrorism by Gill, 2012; Taylor, 2010).

Lastly, violent political groups have to be committed to *a strategy of violence to advance their political causes*. As a result, street gangs, organised crime groups and mercenary fighters for hire are excluded for lacking “political causes” or their *own* political causes. Similarly, religious cults that practise violence on its own members and potential recruits – such as illegal detention, enslavement, sexual abuse, group suicide – are also not considered a

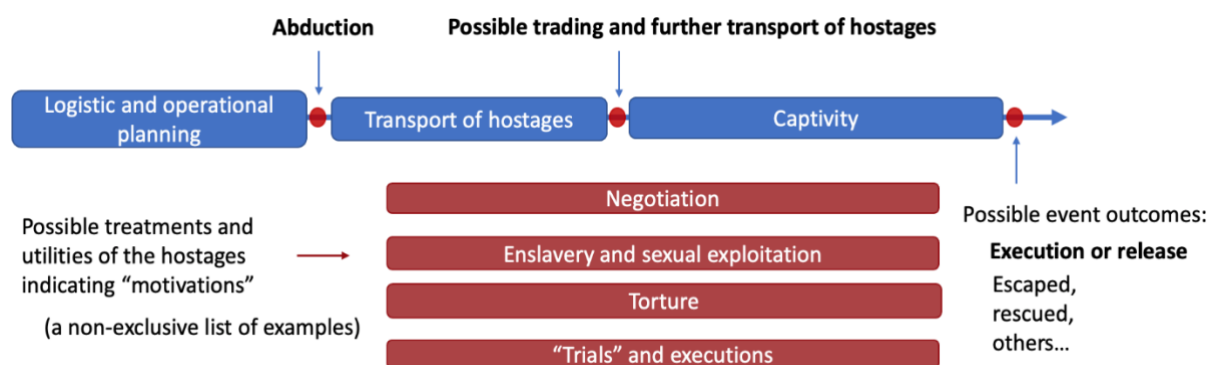
violent political group in this study because the use of violence is not directed at achieving external political aims (Mayer, 2010). However, as Mayer (2010, p.362) also points out in his discussions on the difference between cults and terrorist groups, “the line is a thin one” between the use of internal or external violence, while the religious and political dimensions of a group’s pursuits are “not mutually exclusive.” Religious cults, in rare occasions, can appear quite similar to a terrorist organisation. The closest example one can think of is the Aum Shinrikyo in Japan, which infamously orchestrated the Sarin gas attack in Tokyo subway in 1995 following their end-of-world apocalypse beliefs and to obstruct police investigation into their cult activities. But again, the use of violence was not directed at the realisation of a “political cause” and therefore would not be considered a “violent political group” as currently defined in this thesis.

Another key concept involved in the research question is “kidnappings.” For this PhD study, I define kidnapping as a forceful taking of human hostages against their will, followed by transporting and holding the hostages in captivity at an unknown location. Figure 1.1 provides a visualised demonstration of this behavioural-based definition of kidnapping, inspired by the behavioural models of hostage-taking developed by Wilson et al. (1996) and Wilson (2018). Under the current definition, kidnappings must be differentiated from barricaded sieges or hijackings where the location of the hostages would be known or fixed. Although kidnapping, barricade sieges and hijackings all involve the forceful taking of hostages, most of the existing literature on hostage-taking has treated them as distinctive types of attacks that warrant separate examinations (e.g., Brandt & Sandler, 2009; Dolnik, 2003;

Friedland & Merari, 1992; Wilson, 2000; Wilson et al., 1996).<sup>2</sup> For example, the hostage attack at the Bataclan theatre discussed earlier is a typical barricade siege rather than a kidnapping event, and therefore, it would be outside the scope of this thesis. The current definition of kidnapping also necessarily mirrors that of the GTD, which recorded an event as kidnapping if it involves “[a]n act whose primary objective is to take control of hostages for the purpose of achieving a political objective through concessions or through disruption of normal operations” and entails “moving and holding the hostage in another location (from the location of abduction)” (GTD Codebook, 2019, p.25).

**Figure 1.1**

*A Tentative Model of Behavioural Structure of Kidnapping Events*



Some prior studies have adopted an alternative approach in defining kidnapping by making negotiation - or the intention to negotiate, for the conditional release of hostages - an indispensable element of the concept of “kidnapping” (*see* Gilbert, 2020b; Wilson, 2000).

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<sup>2</sup> Barricade siege situations involve much greater risks for the perpetrators since they would inevitably be directly confronted by law enforcement officers and much more likely to end in violent takeovers by authorities (Friedland & Merari, 1992; Wilson, 2000). Kidnappings are more difficult for law enforcements because they tend to happen in territories controlled by the perpetrating groups (Dolnik, 2003).

Meanwhile, some researchers have focused their studies specifically on kidnappings for ransom (Asal et al., 2019; Koseli et al., 2020; Phillips, 2009; Pires et al., 2014). Unlike these previous studies, this thesis does not narrow the scope of the investigation by limiting the analyses to certain subgroups with specific motivations for kidnapping. This is necessary for purposes of the current study, as one of my key interests concerns a broad variety of possible motivations of kidnappings, beyond ransom gains and political concessions, and their possible explanations. Moreover, the decision to not limit the scope of kidnappings to certain designated motivations recognises that the apparent motives of kidnappings may be difficult to ascertain in reality and can change over time. As shown in Figure 1.1, kidnapping is a dynamic process that involves a series of events – logistic and operational planning, abduction of the hostages, transport of the hostages between locations or even among groups, detention and captivity. The hostages, once abducted and controlled by the kidnappers, may be treated and exploited in various ways, indicating different possible motivations (visualised as the red bars in Figure 1.1). This may include negotiating for political concessions or ransom money, slavery for labour or sex, torture to extract intelligence and confessions, execution for punishment or making political statements and intimidation. However, these treatments of hostages and the implied motivations may not necessarily be mutually exclusive with one another; and the motivation behind the initial abduction may not remain the same in the ensuing transportation and captivity periods. For example, the ISIS mass kidnapping of Yazidi women shows evidence of both sexual slavery and exchange for ransom (Barkawi, 2020; Cetorelli et

al., 2017), while requests of political concessions may only be a smokescreen to hide the real intentions<sup>3</sup> (Turner, 1998; Williams, 2009).

Before I conclude on the definition of kidnapping in this section, I would like to make a few clarifications on the boundaries and distinguishing features of kidnapping in relation to other forms of crime that may be affiliated or confused with kidnappings. As Figure 1.1 suggests, kidnapping can be a breeding ground for various forms of exploitation and victimisation once the perpetrators have taken physical control of the hostages, linking it to other criminal activities such as rape, human trafficking, slavery, torture, and homicide (*see* Kachynova, 2015, for a discussion of the link between kidnapping and other forms of non-lethal violence). However, kidnapping must be recognised as a distinctive form of crime and violence for its very nature of coercion and control, which makes it a conduit to a range of other crimes, highlighting the unique form of harm it bears to society.

Kidnappings that involve a coercive bargaining component - using the ability to inflict physical violence and damage to threaten the hostages or concerned third parties to achieve behavioural compliance - bear important conceptual resemblance to extortion and blackmailing. However, the key distinction between kidnappings, on the one hand, and extortion and blackmailing, on the other hand, is that the former must involve the use of physical violence to abduct, transfer and detain the hostages against their will. A verbal threat of harm without physically taking control of hostages may constitute extortion, but not kidnapping. Similarly, the “express kidnappings” often seen in Colombia, Mexico and Brazil, where the perpetrator

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<sup>3</sup> This is likely the case, for instance, when hostages are quickly executed after requests of political concessions without signs of genuine efforts of negotiation. Chapter 4 provides more elaborated discussions and examples in Section 4.2.2.



would temporarily seize the victims, often just for a few hours, escorting them to multiple ATMs to get money (Johnson et al., 2003), are not considered kidnapping for purposes of this thesis. These events do not involve the “holding of the hostages in captivity at an unknown location,” as my definition of kidnappings stipulated, but are essentially prolonged robberies.

### **1.3 Kidnapping as a Coercive Tool in Extra-legal Governance?**

Kidnapping, as a form of violence committed by political groups, can be interpreted and understood from different perspectives. In this study, I broadly follow a perspective that is rooted in the question of what the strategic interests are for a political actor to engage in a certain type of violent tactic (Crenshaw, 1998; Crenshaw, 2008; Hoffman, 2011; Kydd & Walter, 2006). In this perspective, the decision and behaviours by violent political groups are viewed as a result of intentional choice, influenced by a number of factors relating to the perceived strategic interests of the groups, such as benefits, costs, risks, as compared to the perceived available alternatives (Crenshaw, 1998; Crenshaw, 2008). In interpreting what the strategic interests are for a violent political group, I took the approach of combining both the external political goals, as well as the internal group processes and dynamics that strive the survival of the organisation (Crenshaw, 1987; McCormick, 2003; Post, 1998). Under this approach, the strategic interests of a group are not only determined by goals directed externally in achieving political advancement against the outer world (e.g., attacking the enemy forces, territories or people connected to the political enemy or rivals, gaining concessions from the political enemies), but are also necessarily determined by those directed inwards to maintain a group’s existence and cohesion. These inward-directed interests may include - but are not limited to - a necessary supply of funding and recruits; establishing a fair and efficient scheme of training, promotion, taking care of its members and their families; an effective mechanism

to resolve internal disputes; building up legitimacy and raising the morale of the group to fight for their collective political cause; detecting and disrupting spying and sabotaging activities, among others (Mironova, 2019).

Kidnapping, as a form of violent, coercive strategy, can be useful both for achieving external offensive goals and for internal control and maintenance. A good understanding of the decision by violent political groups to engage in kidnappings should be informed by this broad range of external and internal goals that kidnapping may serve. Typical examples of kidnappings serving external political goals include targeted kidnappings of officials or high-profile individuals belonging to the “enemy’s” side (e.g., the abduction of Aldo Moro by the Red Brigade and the kidnapping of the Quebec Deputy Premier Pierre Laporte by the Quebec nationalists), or kidnappings of foreign aid workers and journalists by ISIS. Examples of kidnappings committed for internal maintenance and control purposes may include the practice of rampant kidnappings of local residents to generate ransom income (Briggs, 2001) or to intimidate the local business and communities into making regular extortion payments (e.g., “revolutionary” tax) to fund the group’s operations (Gilbert, 2020b). Kidnappings may also serve internal maintenance and control purposes in the case of coerced “recruitment,” as is the case with Lord’s Resistance Army’s (LRA) abduction of children from local villages (Dunn, 2004; Kaplan, 2009), or kidnappings of women *en masse* to be “rewarded” or “married” to the fighters as sex slaves or wives (Uloho, 2019). It is also important to note, however, that the external and internal goals are not mutually exclusive; kidnappings may achieve both external and internal goals at the same time. For example, in cases like the kidnapping by ISIS of the Yazidis women to be “rewarded” to their fighters as sex slaves, or Boko Haram’s abduction of Christian schoolgirls to be “married” to their soldiers, the kidnappings serve both the externally

directed goals of destroying communities they consider “enemies” of their god, and at the same time, catering to the internal need to satisfy their fighters.

Moreover, it is not uncommon to see violent political groups using kidnappings as the illicit equivalent of the “policing” apparatus to investigate and punish suspected traitors, spies, informers or “corrupted” members of their own (Bielenberg & Óg Ó Ruairc, 2020; Forero, 2003; Mohanty, 2019; *The Times of India*, 2010). Similarly, kidnappings have also been committed against civilians to enforce community rules or manners of social interaction imposed by the violent political groups in territories they control. For example, Al-Shabaab is known to use abductions to enforce the strict dressing code and hair-cover rules they imposed on local communities, especially women (*BBC News*, 2014) or to punish suspects of alleged neighbourhood crimes like theft and robbery (Rice, 2010). In a way, these kidnappings committed in the context of “policing” community rules and establishing social order are akin to governments’ exercise of law-enforcement and peace-keeping power in societies governed by the rule of law. These kidnappings allow the perpetrating groups to claim and exercise their authority in regulating social interactions in areas they operate and “legitimise” their political cause. In this way, the kidnappings serve the internal maintenance and control purposes for the violent political groups to enhance group cohesion, but at the same time, may also serve the external purposes of weakening and disrupting their enemies’ sabotaging operations.

A key concept pertinent to these functions of kidnappings discussed above is “governance” in an extra-legal context. Governance exists beyond the framework of sovereign states and legally recognised governments (Mampilly, 2007; 2011). In many places where internal armed conflicts and violent political campaigns persist, governance is often delivered to the local populations outside of conventional legal frameworks by a range of non-state actors including violent political groups and organised crime groups, as well as various existing

formal or informal social institutions (Ajorna et al., 2015; Barter, 2015; Förster, 2015; Shortland & Varese, 2016). For this thesis, I follow Shortland and Varese (2016, p.812) in defining “governance” as “a variety of formal and informal institutions and mechanisms [that] can regulate exchange, including repeated interactions.” A similar definition was also adopted by Mampilly (2015, p.77) in his study of rebel groups’ governance in an extra-legal context, which conceptualised “governance” as “institutions and, importantly, informal and formal norms and rules of behaviour that regulate civilian social, economic, and political life” (Mampilly 2015, p.77).

The realisation (and quality) of governance in an extra-legal context is vital for groups’ cohesion and survival (Ajorna et al., 2015). Running a violent political organisation is highly risky, resource intensive and expensive. In addition to the external threats from the states or other political opponents, violent political groups constantly face risks of sabotaging and trust problems from within their own members and the civilian populations in areas they operate (Post, 1986; Young, 1990). In addition, groups without sufficient external support (e.g., financial and tactical support from sponsoring states, donations from diaspora, etc.) often have to depend on local communities for new recruits, food and logistic supplies, sheltering and loyalty, as in not spying on the group’s activities and reporting to the enemy forces (Ajorna et al., 2015; Mampilly, 2015). A purely destructive approach, such as killing and looting, is unsustainable. It also damages the political goodwill of the group, risks making more enemies and losing support from its own members. Instead, violent political groups often employ a mix of “coercive” and “persuasive” techniques to establish some forms of long-term governance arrangements with its own members and with the local populations (Ajorna et al., 2015; Furlan, 2020). Mampilly (2015, p. 79) summarised these different mechanisms of behaviour-regulation techniques in extra-legal contexts as “coercive,” “remunerative” (in exchange for

material or economic benefits) and “normative” (based on the set of shared values and identity) processes. Under such governance scheme, violent political groups provide the local population with a degree of security to continue with their lives in exchange for loyalty and contributions, for example, money, supplies, recruits (Mampilly, 2015), which bears much resemblance to the governments of contemporary nation-states (Tilly, 1990). Kidnapping, as a form of violence that aims to control, coerce and intimidate for behavioural compliance, can be a particularly useful tool, if not a necessary one, for violent political groups in the process of negotiating and implementing extra-legal governance arrangements. Via kidnappings, violent political groups may regulate the behaviours of the local population to adhere to their rules by physical coercion and threats of immediate physical harm to the hostages. Moreover, as discussed earlier, kidnapping may also serve as the illicit equivalent of a “law-enforcement” apparatus for a violent political group who wants to “detain,” “interrogate,” “imprison” and inflict “punishment” on individuals suspected of violating rules or working against the group. Is it possible, then, that the use of kidnappings by violent political groups can be explained, at least partly, by their need to establish control and governance in an extra-legal context in the area they operate in?

Notably, news coverage of kidnappings by violent political groups appears to have been disproportionately focused on those high-profile cases involving foreign nationals, especially Westerners, and those followed by negotiation processes. This may have contributed to the common (mis)perception that kidnapping is primarily a form of attack directed at foreigners in exchange of political concessions with the Western democracies or lucrative ransom payments. However, the vast majority of kidnappings are committed against local residents within or near the territories the violent political groups operate in, and not followed by any ransom or political requests (*see* Forest, 2012a, although Forest mostly attributed the low percentage of

kidnappings accompanied by negotiation demands in the data to “under-reporting”). An explanation of kidnappings by the apparent benefits of ransom income and political concessions, which are dependent upon fruitful negotiations, may not explain the full picture of the causes and motivations behind kidnappings. On the other hand, the need for violent political groups to use kidnapping as a coercive tool to establish and enforce governance and control in an extra-legal context may provide an alternative or supplementary explanation for the large number of kidnappings committed locally with or without ensuing negotiations.

Although this “extra-legal governance” explanation of kidnappings is largely inspired by the notion that kidnappings may serve control and maintenance purposes, its potential application is not necessarily limited to kidnappings against its own members or the peripheral civilian communities. Kidnappings of foreign-nationals and outsiders of the group (e.g., tourists, aid workers and journalists) may also serve the general purpose of internal control and governance by preventing infiltration and external influence in contended territories. The proposed link between kidnappings and governance in an extra-legal context has to be broadly understood as the will and capacity of the perpetrating groups to assert power, authority, control and influence over a targeted audience, which are not necessarily limited to their own constituents.

However, the potential link between kidnapping and extra-legal governance by violent political groups remains largely unexplored. Examining this possible link between extra-legal governance and kidnapping bears important implications for policymakers, who may want to look beyond the apparent monetary gains and political concessions in their understanding of the root cause of kidnappings in violent political campaigns. If findings from this study support an explanation of kidnapping as a coercive enforcement strategy to establish control and governance in an extra-legal context, the kidnapping prevention strategy may necessitate a

focus on weakening the governance capacity of violent political groups. The relevance and effectiveness of the non-concession policy in preventing future kidnapping events may also need to be re-assessed in new lights.

## **1.4 Study Design and Research Aims**

In this thesis, I aim to contribute to the potential explanation of kidnapping as a coercive tool to establish and enforce extra-legal governance by examining the associations between the two, using variables derived from the kidnapping event records from the GTD and the organisational-level data on extra-legal governance from the Big Allied and Dangerous, Version 2 (BAAD2). Since my research question concerns violent political groups' level of engagement in kidnappings, empirical analyses in this thesis necessarily take a meso-level approach and use the aggregated number of kidnappings by groups as the main outcome variable. Although analyses of associations are observational in nature and cannot establish causation, they are a necessary first step to assess the relevance of extra-legal governance as a possible contribution to explaining kidnappings.

Under the broader rational strategic framework and the proposed explanation of kidnapping as a tool to establish and enforce extra-legal governance, violent political groups are expected to engage in kidnappings, or more kidnappings, if and when they are deemed to have a heightened need to establish or reinforce extra-legal governance. The latter is operationalised as a list of measurements on the factors and conditions pertaining to extra-legal governance. In this regard, I distinguish the following aspects of “extra-legal governance”:

*Pre-condition factors* indicating a heightened need to engage in governance for violent political groups. In this respect, I examine whether engagement in kidnapping is more frequent,

or more likely, if/when a group: 1) controls territories; and 2) is not supported by external funding (and therefore may need to control local populations and businesses to realise sustainable self-finance).

*Types of activities* indicating efforts by violent political groups to establish or reinforce governance in an extra-legal context. In this regard, I examine whether engagement in kidnapping is more frequent, or more likely, if/when a group: 1) provides public social services (e.g., health care, education, transportation, security, etc.) to people in the area where it operates; and 2) engages in any organised forms of illicit businesses including extortion, smuggling and drug-trafficking; the types of illicit activities that require the cooperation and general ecology of the local community and businesses to generate profit (Shortland & Varese, 2016).

*Organisational capacity factors* that enable violent political groups to establish and enforce governance in an extra-legal context. In this respect, I examine whether engagement in kidnapping is more frequent, or more likely, if/when a group: 1) has a larger membership size; 2) has a more efficient command structure; and 3) is more well connected to other violent political groups.

*Ideologies* that encourage more pervasive intervention and regulation of daily social and economic interactions among people. Among the three most common types of ideologies adopted by violent political groups (i.e., religious extremism, left-wing revolutionism and ethno-separatism, *see* Forest, 2012b), religious extremists and left-wing revolutionaries are more prone to hold an interventionist view and seek regulating behaviours of people not belonging to their natural constituents. For example, religious extremists may seek to convert the general population and enforce their religious rules in areas they operate, leftists may want to establish new social economic orders such as redistributing land and wealth. As a result, I



examine whether engagement in kidnapping is more frequent, or more likely, if/when a group follows a: 1) religious extremist ideology; and 2) leftist revolutionary ideology.

The factors and conditions summarised above are developed from existing literature on governance by violent political groups (*see* Ajorna et al., 2015; Furlan, 2015; Gilbert, 2020b; Kalyvas, 2015; Mampilly, 2011; Mampilly, 2015). Section 4.3 provides a fuller discussion on how the abstract construct of “extra-legal governance” is operationalised into these factors and conditions. The main hypotheses in the empirical analyses are derived from the assumption that these factors and conditions, indicating a heightened need to establish or to reinforce extra-legal governance, would be positively associated with engagement in kidnappings (*see* fuller descriptions of the hypotheses at Section 4.3 and Section 5.2).

It should be made clear, however, that the current study does not propose a simple relationship between extra-legal governance and kidnapping in the sense that an overall 'amount' of more extra-legal governance would be expected to predict more kidnappings. On the contrary, a strong and stable governance in an extra-legal context would likely witness a higher level of voluntary compliance to the ruling of the relevant political power, and therefore, a lessened need to use coercive means like kidnapping to establish control and regulate behaviours (Gilbert, 2020b). Rather, this study takes the approach assuming that it is important analytically to distinguish different facets of extra-legal governance, each of which may be associated in different ways with a violent political group's engagement in kidnappings. Following this approach, I develop a list of factors and conditions pertaining to key aspects of extra-legal governance based on the relevant existing literature (as explained in the preceding paragraphs). I then hypothesise what their respective relationships with kidnappings would be if extra-legal governance were a relevant factor in explaining kidnappings. If the hypotheses were confirmed in the empirical analyses, then I conclude that the data supports the proposed

link between extra-legal governance and kidnapping by showing patterns consistent with what would be expected if the proposed link were true. Such a “confirmatory” approach of theory testing is not meant to refute alternative theoretical interpretations of the observed empirical associations. For example, a positive association between territory control and kidnapping is consistent with the proposed link between extra-legal governance, but at the same time, it may as well be interpreted as “groups engage in kidnappings when it is easier and less costly to accomplish.” In this thesis, I discuss possible alternative interpretations in each chapter after reporting the findings under the proposed theoretical framework that views kidnapping as a coercive tool to enforce extra-legal governance. After all, the primary purpose of this PhD, and a humble one, is to make the necessary first step to assess the relevance of extra-legal governance as a possible contribution to the explanation of kidnappings.

The empirical analyses on extra-legal governance and kidnapping are conducted from two separate perspectives. First, I will analyse the between-group variations *among* violent political groups in their level of engagement in kidnappings. In particular, I will examine whether and how much of these variations can be explained by the corresponding variations in the organisational factors and conditions pertaining to extra-legal governance. Second, I will examine the changes *within* groups over time. In this regard, I will examine whether, and how much, these temporal changes can be explained by the corresponding changes in the organisational factors and conditions pertaining to extra-legal governance. Analysing both the between-group variations and the within-group temporal changes in kidnappings in their relationship to the corresponding changes in extra-legal governance as two separate questions is important. It recognises that between-group and within-group changes in kidnappings may be driven by different factors and processes. For example, the cross-sectional differences among groups in their levels of engagement in kidnappings might be caused by group attributes

that tend to stay constant over time, for example, following a religious extremist ideology, having certain institutional structures (Forest, 2012b). Temporal changes in kidnapping levels within a violent political group, on the other hand, might be influenced by “habit” and the recent event history of the groups (Rasmussen, 2017).

Examining kidnappings by violent political groups at an organisational level requires linking the relevant organisational characteristics of the groups to measurements of their kidnapping activities. This thesis does so by combining the kidnapping incident data from the GTD and the organisational-level data from BAAD2 to form a unique dataset “GTD-BAAD2.” However, GTD kidnapping events without any identified perpetrator information could not possibly be attributed to any violent political groups in BAAD2 and will therefore be systematically excluded from GTD-BAAD2. This may create a selection bias and jeopardise the reliability of the empirical findings from analyses based on GTD-BAAD2. To address this potential problem, this thesis will first conduct a comprehensive analysis of the patterns of missingness in perpetrator’s identity in the GTD kidnapping data before delving into the group-based analyses of kidnapping and extra-legal governance.

The main steps of the empirical analyses in this thesis, as described above, are designed to address three specific research aims: 1) to examine the patterns of missingness in perpetrator’s identity for kidnapping events recorded in the GTD and explore the possible mechanisms influencing such patterns. This is also to assess the implications of the systematic exclusion of these cases in later analyses of kidnapping and extra-legal governance at a group level. 2) to examine if empirical data support an explanation of the variations *among* violent political groups in their level of engagement in kidnappings by extra-legal governance. 3) to examine if empirical data support an explanation of the temporal changes *within* violent political groups by their changes in extra-legal governance.

## 1.5 Outline of Thesis

This thesis is structured into six chapters. This introductory chapter explained the use of kidnappings in a historical context, their popularity in recent decades in political violence and terrorism, the conceptual boundaries that define the scope of this PhD study, the proposed “extra-legal governance” thesis to be empirically tested as a potential explanation of group-level differences in kidnappings and the analytical strategy of this thesis.

In Chapter 2, I provide a consolidated overview of the different sources of data relied upon in this thesis, including: 1) the GTD data on the kidnapping incidents; 2) BAAD2 group-level data on the organisational characteristics of violent political groups; and 3) how these two sources were merged into GTD-BAAD2 to allow the analyses of group-level differences in kidnappings. This chapter aims to give readers a good background and the necessary clarity on the sources and reliability of empirical data before going into the details of empirical analyses in the later chapters.

Chapter 3, 4 and 5 are the main empirical chapters, each presenting the analyses and findings corresponding to the three specific research aims summarised in Section 1.4.

In Chapter 3, I examine the patterns of missingness in perpetrators’ identity among the kidnapping events recorded in the GTD. In addition to descriptive analyses and case studies, I also use logistic regression models to analyse the effects of temporal-geographical contextual factors, as well as incident characteristics on the missingness of perpetrator identity. By analysing the patterns of missing data in perpetrators’ identity, Chapter 3 sheds lights on the potential sampling bias in my later analyses on kidnappings and extra-legal governance using GTD-BAAD2 data, which systematically excluded kidnapping cases without information on the perpetrators’ identity.

Chapter 4 and Chapter 5 are the two empirical chapters testing the main theoretical question of this thesis – the relevance of extra-legal governance in explaining kidnappings by violent political groups. Chapter 4 examines the *between-group* variations in kidnappings and their relationships to extra-legal governance, while Chapter 5 considers the *within-group* temporal changes in kidnappings. The research design and analyses in these two chapters are built upon many common foundations in terms of literature review, theoretical framework and data measurements in GTD-BAAD2. Both are informed and based on existing literature on general decision-making by violent political groups, comprising the functions and costs of kidnappings from the perspective of the violent political groups. Empirical analyses in both chapters are built upon the common theoretical framework that operationalises the abstract construct of “extra-legal governance” into a list of organisational-level factors and conditions measured in GTD-BAAD2. These topics are mainly discussed in Chapter 4, where they first arise, while Chapter 5 makes references to them, where appropriate.

For empirical analyses on between-group variations in Chapter 4, a series of multiple linear regression models were tested to study the associations between the average amount of kidnappings committed by violent political groups in my sample and organisational factors related to extra-legal governance. Moreover, path analyses were also conducted to test possible covariance structures among various organisational factors potentially predicting kidnappings, which allow us to explore indirect effects and causal pathways linking extra-legal governance-related factors to kidnappings. Overall, these between-group analyses in Chapter 4 address the specific question of why groups *differ from each other* in their average level of engagement in kidnappings. Compared to the later analyses on within-group temporal changes in Chapter 5, the between-group analyses in Chapter 4 allow us to examine the effects of relatively-time invariant predictors of kidnappings, contributing to the general question of whether

kidnappings by violent political groups may be related to extra-legal governance from a cross-sectional perspective.

Chapter 5 examines the within-group temporal changes in kidnappings and tests their associations with changes in organisational factors related to extra-legal governance with a series of fixed-effects regressions. Both fixed-effects logistic regression models (based on a dichotomised kidnapping outcome) and fixed-effects Poisson models (using a count-based kidnapping outcome) are analysed separately and compared to each other. Examining the kidnapping outcome in both a binary measurement and a count-based measurement helps distinguish the relevance and effects of extra-legal governance in two different questions: 1) what explains the within-group changes in the decision to engage or withdraw from the kidnapping practice; 2) what explains the within-group changes in the specific numbers of kidnappings committed by violent political groups. Together, they provide important insights into the temporal dynamics of how changes in violent political groups' engagement in kidnappings are associated with the corresponding changes in organisational factors related to extra-legal governance.

Lastly, Chapter 6 concludes this thesis by revisiting the research aims, highlighting the contribution to knowledge made by this thesis, discussing its limitations and summarising what the findings mean for policy makers and future research.

## Chapter 2

# Kidnappings by Violent Political Groups in Secondary Open-source Data

## 2.1 Introduction

This study aims to test the proposed theoretical link between kidnappings and extra-legal governance of violent political groups by examining their relationships at a group level. Specifically, I plan to study their associations both in terms of between-group variations and within-group changes over time. This necessarily requires using data measuring both the kidnapping records of violent political groups, as well as the organisational characteristics pertaining to extra-legal governance. While much is reported in the public domain regarding the attacking records and organisational characteristics for violent political groups, it is not feasible for me to conduct primary data-collection and coding on a sizable sample within the limited time frame of a PhD. For this thesis, I relied on two sources of secondary data that have readily coded these measures based on open-source information, namely, the GTD and the BAAD2. The GTD contains incident-level data on violent political attacks, including kidnappings. The BAAD2 contains annually repeated measures on key organisational characteristics of violent political groups. By combining the two, I developed a unique dataset (hereinafter as “GTD-BAAD2”) on 140 violent political groups with annually repeated measures ( $N_{group\_year} = 1,386$ ) on the number of kidnappings committed and organisational characteristics of each group in a given year. Both the GTD and the BAAD2 are well-known in the field of violent political research and housed under the National Consortium for the Study

of Terrorism and Response to Terrorism (START). A number of published studies have taken a similar approach, merging data from these two sources to conduct group-level analyses on violent political groups (*see* Asal et al., 2021; Boyd, 2016; Boyle, 2020; Carter et al., 2020; Forest 2012b; Mierau, 2014; Pilny & Proulx, 2019).

However, developing valid and reliable measurements on violent political attacks and violent political actors based on open-source information is not easy. Datasets derived from open-source information in the public domain face a number of reliability and validity challenges. Open-source information in the public domain is not a perfect reflection of the real world. It is bound to under-report the actual occurrence of events because not all events are reported and documented in the public domain (Behlendorf et al., 2016; Weimann & Brosius, 1991). Moreover, it under-reports real-world events in an unbalanced way. For example, media coverage of world events – a major source of open-source information – may focus more on certain regions, languages and types of events while under-reporting others (Guo & Vargo, 2017; Harcup & O'Neill, 2017; Shoemaker et al., 1991; Staab, 1990; Weimann & Brosius, 1991). Additionally, the content of open-source information may also be inaccurate and include errors. As a result, researchers developing datasets from open-source information must face the challenge of setting up safeguarding procedures to control the reliability of the sources and to deal with conflicting information from multiple sources. Ideally, researchers should develop a screening strategy that maximises the chances of finding all information in the public domain relevant to their research interest. They also need to employ an appropriate set of inclusion and exclusion criteria to make sure data are collected and coded in a consistent way. The GTD and BAAD2 are no exception to these challenges. It is important that this study discusses their general methodology and how they handled these challenges, which directly influence the reliability and validity of their data.



In this chapter, I aim to provide an overview of how the relevant measurements were coded in the GTD and BAAD2, and how they were merged to create GTD-BAAD2. It is a necessary step to introduce the data used in the later chapters of this thesis. In the following pages, I will report on the specifics of the types of data from the two databases, the methodologies employed to develop the two datasets, challenges faced in cleaning and merging the data, the decisions made and respective justifications.

## **2.2 The GTD Kidnapping Incident Data**

Developing reliable measures on incidents of violent political attacks based on information available in the public domain requires systematic strategies for screening, reviewing and coding the data, and updating them periodically. It demands a continuous commitment of meticulous work by researchers, where many important decisions on the focus and the methodology of the datasets will be made. There are three sources of incident-based datasets on attacks by violent political actors that are commonly used by researchers in the field of political violence. In addition to the GTD, two additional sources include the International Terrorism: Attributes of Terrorist Events (ITERATE) and the Database of Worldwide Terrorist Incidents (RDWTI) by the Rand Corporation (*see* Kim et al., 2021; LaFree, 2019; Larue & Danzell, 2020; Python et al., 2019; Ritchie et al., 2013). Among the three sources, the GTD is not only the best suited for purposes of this study but also the most comprehensive one. The ITERATE, as the name “International Terrorism” indicates, only cover incidents of political violence with a transnational element – parties or logistic involvements of the events must concern more than one country. The ITERATE is a great resource to investigate transnational political violence and has been widely referenced in academic literature (Kim et al., 2021; Python et al., 2019). However, it does not serve the purpose of this thesis, which focuses on

kidnappings committed by violent political groups regardless of whether they comprise transnational elements. RDWTI includes both domestic and transnational events of political violence, but it records events only until 2009 (from 1968), missing data on the most recent decade. The GTD, on the other hand, goes back to 1970 and is still being updated annually (GTD, 2019). The RDWTI contains a total of 2,152 kidnapping incidents, which is just a small fraction of over 12,000 kidnappings recorded in the GTD (2019). Most importantly, the RDWTI only coded variables on the very basics of attacking events: the dates and location of the attack, perpetrator's identity, types of weapons used, numbers of injuries and fatalities, and a brief event summary. This is much less than the over 100 variables systematically coded in the GTD, which measures more comprehensive event-specific information such as the nationality and professional roles of the hostages, whether requests of ransom were made by perpetrators, how much they were paid, specific numbers of perpetrators and victims involved, the fate of hostages, the duration of captivity, among many other aspects of the kidnapping events. Where available, the GTD also provides information on the sources they relied on to make the relevant coding for each recorded event, which adds another layer of rigour and valuable information. I verified the links and information on the primary sources provided by the GTD on a randomly selected 150 kidnapping incidents, which confirmed their reliability. The inclusion of both domestic and international events, as well as the more extensive coverage of kidnapping incidents in a more comprehensive and well-referenced manner, make the GTD the most optimal choice for the purposes of this study.

The GTD coding mainly relies on publicly available sources, including “media articles and electronic news archives, and to a lesser extent, existing datasets, secondary source materials such as books and journals, and legal documents” (GTD Codebook 2019, p.3). The initial data collection started in the 1970s by a private security agency and went through several

stages of reforms. A main upgrade happened in 2005 when all handwritten records were digitalised and when internet sources were increasingly relied on. Another major upgrade happened in 2012 when the GTD team started using machine learning techniques and natural language processing to conduct mass screening of electronic resources for human review. The first step of the screening process is applying “customised key-word filters” to identify potentially relevant media articles on attacks by violent political actors from the over one million articles published in the public domain on a daily basis (GTD Codebook 2019, p.9). This filtering process produces around 400,000 articles per month to be further examined by machine learning and natural language processing to “further refine results and remove duplicate articles” to prepare the pool of articles for human review. The GTD researchers conducting the human review are comprised of six coding teams, each focusing on one of the following areas: location, perpetrators, targets, weapons and tactics, casualties and consequences, and general information. Together, they manually review approximately 12,000 to 16,000 articles per month to determine if the information reported in those articles will be coded into the GTD. The sources being screened are mainly in English-language, supplemented by a database containing the English translation of open-source information covering over 160 countries and 80 languages (GTD Codebook 2019, p.9). To control the quality of the sources, the GTD distinguishes “high-quality” sources as those that are “independent” (free of influence from the government, political perpetrators, or corporations), those that routinely report externally verifiable content, and those that are primary rather than secondary” (GTD Codebook 2019, p.9). An attack must be documented by at least one such “high-quality” source to be included in the GTD. However, as the GTD Codebook (2019) itself acknowledged, a consequence of this quality control process is that some regions would be less represented in the GTD due to lack of quality sources in the region. A more detailed discussion on the historical phases of the GTD data-collection can be found in Chapter 3

(particularly in Section 3.2.3), where I also discuss the relevant limitation and bias as a result of changes in the methodology of data collection.

As already discussed in Chapter 1, which presented the scope and conceptual boundary of this study, an attack would be coded in the GTD as kidnapping if it is “[a]n act whose primary objective is to take control of hostages for the purpose of achieving a political objective through concessions or through disruption of normal operations” (GTD Codebook 2019, p.25). The GTD also distinguished kidnappings from the barricade situations of hostage-takings by requiring kidnapping to involve the “moving and holding the hostage in another location (from the location of abduction)” (GTD Codebook 2019, p.25).

Following the above-mentioned definition of kidnapping as well as the screening and review processes, the GTD has recorded a total of 12,138 kidnappings that occurred between 1970 and 2018. These GTD-recorded kidnapping events cover 140 countries, but the vast majority happened in a relatively small number of countries. The top 20 countries with the highest number of kidnappings make up 80.6% of the total number of all GTD kidnappings; the top 10 countries make up 64.9% of the overall kidnappings.<sup>4</sup>

Kidnappings recorded by the GTD are predominantly local and against domestic victims. Among the 12,138 GTD-recorded kidnappings, only 613 happened outside the home countries where the perpetrators were based (5.1%), and only 2,659 involve hostages whose

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<sup>4</sup> The top 20 countries are (in a descending order): 1. India, 2. Afghanistan, 3. Colombia, 4. Iraq, 5. Pakistan, 6. Philippines, 7. Nigeria, 8. Libya, 9. Yemen, 10. Somalia, 11. Syria, 12. Democratic Republic of the Congo, 13. Sudan, 14. Guatemala, 15. Lebanon, 16. Turkey, 17. El Salvador, 18. Cameroon, 19. Ukraine, 20. Nepal.

nationalities were foreign to the home countries where the perpetrators were based (21.9%). For some of these kidnappings, the perpetrators have issued ransom requests. Yet, they only comprise a small proportion of the total kidnappings documented in the GTD ( $N = 1,247$ ; 10.6%). This may be an understatement of the true prevalence due to the secrecy of ransom negotiations and the lack of reliable information in the public domain (Forest, 2012a). The hostages involved in these GTD kidnappings had a wide range of professional and social roles, including government officials (16.8%), police and military personnel (13.5%), journalists (4.2%), private citizens (38.5%), businessmen (13.3%), NGO workers (2.7%), and tourists (0.8) among many others.

These distributions of GTD kidnappings reveal valuable information on the overall landscape of the kidnapping practices in the context of political violence, and one may devote a whole chapter to examining and interpreting these distributions and characteristics of kidnappings. However, the focus of this thesis concerns a different question: the variation in kidnappings among and within violent political groups. In other words, it is not concerned with *all* kidnappings recorded in the GTD, but only with those committed by violent political groups as defined in Chapter 1.<sup>5</sup>

Analysing kidnappings committed by violent political groups, as this thesis is primarily concerned about, requires aggregating the GTD's kidnapping records for the qualified

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<sup>5</sup> For example, in addition to attacking incidents perpetrated by “violent political groups” as defined in Chapter 1, the GTD also records events committed by lone-wolf terrorists, individuals largely belonging to a social, political movements but not known to be affiliated with an institutionalised organisation (e.g., Marxists, Palestinians, Muslims, students, Houthis, etc.).

perpetrators at a group level and linking them to the relevant organisational characteristics. For kidnappings without information confirming the identity of their perpetrators, it would be impossible to attribute these kidnappings to any perpetrating groups. In other words, kidnappings where the perpetrators could not be identified will be systematically excluded from the intended group-level analyses. In the GTD, the identity of perpetrators cannot be ascertained in 45.1% of overall attacks and in 30.1% of kidnapping events. This raises serious concerns for a potential selection bias from the systematic exclusion of such a substantial proportion of kidnappings in the database. Chapter 3 will consider this specific issue and examine the patterns of missingness in perpetrator's identity among the GTD kidnappings.

### **2.3 BAAD2: Organisational Characteristics of Violent Political Groups**

The GTD is a good source of data on kidnapping incidents committed in the context of political violence, but it lacks information on organisational characteristics of perpetrating groups. This can be supplemented by the BAAD2, a group-level longitudinal dataset on a host of organisational level characteristics of violent political groups.

The BAAD2 is an upgraded version of the Big Allied and Dangerous Version 1 (BAAD1). The latter was a cross-sectional dataset developed in 2005 by a research team based at the University at Albany - State University of New York led by Dr. Victor Asal and Dr. Karl Rethemeyer. BAAD1 measures the organisational features and network relationships among known violent political organisations worldwide between 1998 to 2005 (BAAD2 Codebook, 2018). It was initially developed to study the lethality of violent political actors and how organisational features like membership size and network connections may influence the number of battle-related fatalities inflicted by a violent political group (Asal et al., 2009; BAAD2 Codebook, 2018). The BAAD2 improved BAAD1 by expanding the observation

period to 2012, and most importantly, it added a time-series dimension into the data with a new round of primary data collection and coding. In other words, the basic unit coded in BAAD1 is a distinctive violent political group, while in BAAD2, a basic unit is a “group-year” entry. In BAAD2, a violent political group would have as many group-year units attributed to it depending on how many years it has been actively operating during the observation period from 1998 to 2012.

Similar to the GTD, BAAD2 also primarily relies on screening and review of open-source information for its coding (BAAD2 Codebook, 2018, p.3). A combination of automated computer-assisted procedures and human review is employed in this process. It relies on multiple sources, including academic and news articles on violent political organisations via metabases like Lexis Nexis. Close to 40 undergraduate and graduate students, led by two full-time coders, have worked on the coding teams over the years to develop BAAD1 and BAAD2 coding (BAAD2 Codebook, 2018, p.3).

For this thesis, I am using the insurgent subset of BAAD2, which is the part that has been released for public use. This subset of BAAD2 is developed from the Uppsala Conflict Database Program (UCDP) dataset and adopts a similar set of inclusion criteria to the UCDP. Namely, groups are included if they have 1) engaged in some forms of violent confrontation with government forces; and 2) met the minimum violence-intensity threshold of having 25 deaths incurred in one of the calendar years when the groups were operating (Asal et al., 2020; Asal et al., 2021; Pettersson and Öberg, 2020). The BAAD2-insurgent subset includes all UCDP violent actors between 1998 and 2012, where sufficient information can be found to establish the founding year, home-base country and ideology orientations. This results in an unbalanced panel of a total of 1386 yearly observations from 1998 to 2012 of 140 violent insurgent groups (BAAD2 Codebook, 2018; Asal et al., 2019). These 140 violent insurgent

groups account for 95% of all violent insurgents actively operating during the observing period 1998 to 2012 (Asal et al., 2019).

Although the BAAD2 insurgent data was released to the public only in 2018, it has been relied on to study a number of topics on violence by non-state political actors. To name a few, why violent political groups engage in crime (Asal et al., 2019); why some groups make efforts to avert civilian casualties while others do not (Brown, 2020); the role of state sponsorship for religiously motivated groups' engagement in suicide attacks (Carter et al., 2020); maritime attacks by insurgent groups (Hastings, 2020); why some groups choose to attack American nationals (Asal et al., 2021); how governments use different counter-terrorism and counter-insurgency policies targeting violent political groups with different characteristics (Asal et al., 2020). For now, it is the only part of BAAD2 that has been publicly released and the data I will use in this thesis.

Organisational level information measured in the BAAD2 is categorised in its codebook into three main areas. First, the BAAD2 coded variables relating to the identification of the violent political groups, including the name of the groups, the year of data, the home country where the group is based. Second, the BAAD2 contains a set of binary variables measuring whether the violent political groups follow a certain ideology (i.e., leftist revolutionism, religious extremism, ethnic separatism). These ideologies are not mutually exclusive with one another, as a group may be inspired by multiple ideologies at the same time. For example, the Kurdistan Workers' Party in Turkey is both a left-wing revolutionary group and a Kurdish ethnic group; the Moro Islamic Liberation Front is both a Moro ethnic group and is also influenced by Islamic religious ideology. Lastly, the BAAD2 measures a set of variables on the characteristics and activities of the violent political groups. These include the yearly observations on the groups' age, estimates of membership size, status of territory control,



leadership structure (hierarchical or non-hierarchical), their engagement in various types of crimes (i.e., drug-trafficking, smuggling, extortion, kidnapping for ransom and robbery), financial sponsorship from a sovereign state, the number of battlefield death inflicted by the group, whether the group provided any public social services (e.g., security, medical care, infrastructure, education, welfare, etc.), the number of allies a group had that engaged in criminal activities. The ideology variables remain mostly constant over time within the same groups. However, the variables on organisational characteristics and activities show much more temporal variability. Most of these measures are included as independent variables in my statistical analyses on the between-group variations in kidnapping by violent political groups (Chapter 4) and their within-group changes in kidnappings (Chapter 5). Details on how the BAAD2's variables used in my analyses are coded are provided in the respective empirical chapters (Chapters 4 and 5).

## **2.4 GTD-BAAD2: Merging the GTD and BAAD2**

To examine how organisational characteristics relating to extra-legal governance may influence kidnappings by violent political groups, one needs to link the number of kidnappings committed by violent political groups with their organisational characteristics. This study achieves this by merging the GTD records of kidnapping incidents with the BAAD2 variables on organisational characteristics based on the identity of perpetrating groups. A number of prior studies have taken a similar approach merging the GTD incident data with the organisational-level measures in the BAAD2 (*see* Asal et al., 2021; Boyd, 2016; Boyle, 2020; Carter et al., 2020; Forest 2012b; Mierau, 2014; Pilny & Proulx, 2019).

Specifically, I used the existing group-year longitudinal data frame in the BAAD2 and added a new variable that represents the number of kidnappings attributed to a given group in

a given year based on the GTD kidnapping incident data. This resulted in a newly created dataset, the GTD-BAAD2. The GTD-BAAD2 largely follows the BAAD2's data framework, containing 1,386 observations as unbalanced panel data for 140 violent political groups that were active during at least one year between 1998 and 2012. This includes groups that were active either before 1998 or that continued to be active after 2012. The geographic home base of these 140 groups spans over 49 different countries, and these groups accounted for 95% of non-state violent insurgents active during the period observed (Asal et al., 2019). The unbalanced nature of the panel data sees 57 of the 140 groups having full observations over the 15 years between 1998 to 2012 and 115 groups (85%) having more than three yearly observations.

However, the merging process raised a number of issues and challenges. As discussed earlier, a substantial portion of GTD kidnappings was systematically excluded from the matching and merging process due to the lack of information on the perpetrators' identity. The BAAD2 covers the period the years 1998 to 2012. Between these years, the GTD recorded a total of 45,817 attacks, of which 2,948 were kidnapping incidents. Among the 2,948 GTD kidnappings between 1998 and 2012, 1,927 kidnappings have identified perpetrators (65.4%). The remaining 1,021 kidnappings with "unknown" perpetrators cannot be matched to any BAAD2 groups and are excluded from GTD-BAAD2 by default. This may result in some level of sampling bias in the current study that warrants further examination (*see* Chapter 3).

For kidnapping incidents in the GTD that has perpetrator information and can be attributed to the BAAD2 groups, several issues also arise in the technical matching process. First, it is not uncommon for violent political groups in non-English speaking countries to have different versions of their names when translated into English. The GTD and BAAD2 sometimes use different versions and styles to refer to certain organisations. For example, the

GTD uses the name Islamic State of Iraq and Levant (ISIL), while the BAAD2 uses ISIS instead. This reflects the different translations of the word “al-Sham,” the geographic area of Syria and the neighbouring areas in Southern Turkey and Egypt that can either be translated as “Greater Syria” or “the Levant” (Mapping Militant Organisations, 2019). Hezbollah, as translated in the GTD, is spelt as "Hizballah" in the BAAD2. In the GDT, Al-Qaida in the Islamic Maghreb (AQIM) is effectively the same group as Al-Qa'ida in the Lands of the Islamic Maghreb (AQLIM) in the BAAD2. Bangsamoro Islamic Freedom Movement (BIFM) in the GTD and Bangsamoro Islamic Freedom Fighters (BIFF) in the BAAD2 are also the same organisation. Raskamboni Movement in the GTD is the same organisation as Harakat Ras Kamboni in the BAAD2.

A consequence of these minor inconsistencies in group names is that one has to conduct a thorough manual review to obtain accurate attributions. Automated matching in computer software requires the names to be identical.

These differences in translation and styles are relatively innocuous; they might take time but are relatively straightforward to fix. A second challenge, and a more complex one, involves the difference between the GTD and the BAAD2 in determining “group continuity.” Groups change over time. This raises the question: what types of evolvments in a group’s organisational features would warrant it to be considered as a different organisation? Does a self-proclaimed change in the name suffice, even when it is essentially the same group of people under the same institutional structure? Does a spin-off of an organisation create different “branches” of a group or several different groups? There is no right or wrong with the different decisions made by datasets like the GTD and BAAD2. However, where they do adopt different standards in determining the scope of “groups,” a careful review must be

conducted to make sure the GTD's kidnapping incidents are correctly attributed to the relevant BAAD2 groups.

Two instances of discrepancy on "group continuity" between the GTD and the BAAD2 were spotted from my review. The first case involves ISIS. BAAD2 treated ISIS as an organisation that started operating in 2004 throughout the rest of the observing period (till 2012), whereas the GTD only started using the name ISIL in 2013 and called the organisation "Al-Qaeda in Iraq (AQI)" and "Islamic State of Iraq (ISI)" in the preceding years since 2004. The GTD's approach reflects the self-proclaimed change of names by the organisation from AQI to ISI in 2006 and to ISIS/ISIL in 2013, which works well for a database that primarily focuses on observing incident-level information of terrorist attacks. Yet, for databases that focus on observing organisational-level changes like the BAAD2, they may benefit from holding a higher standard of "forming a new organisation" and treating name-change only as an aspect of the organisational behaviours. For example, both BAAD2 and the Stanford University project "Mapping Militant Organisations" treated AQI and ISI as different progressing stages of the Islamic State, noting the change of names as "rebranding" efforts by the organisation reacting to their changing circumstances and strategic interests to maximise appeal to their local or international audience (Mapping Militant Organizations, 2019). For practical convenience, I adopted the determination of "groups" consistent with the BAAD2, as this study relies on BAAD2's measures on organisational characteristics of violent political groups. In the case of ISIS, I attributed GTD's kidnappings committed by AQI and ISI during the year 2004 to 2012 to the respective years of ISIS coding in BAAD2.

The second case involves the group "Front for the Liberation of the Enclave of Cabinda (FLEC)." It was split into two groups in the 1990s. The one using the original flag was called "Front for the Liberation of Cabinda / Cabinda Armed Forces (FLEC-FAC)" and the other

called the “Front for the Liberation of the Cabinda Enclave - Renewed.” The BAAD2’s observations start in 1998 and used both FLEC-FAC and FLEC-Renewed to refer to the two groups post-split. However, the GTD data go back as far as the 1970s. They use “FLEC” throughout the entire observation period to include both the original FLEC and the FLEC-FAC after the spin-off, but coded “FLEC-Renewed” attacks separately starting from the 1990s. Again, I adopted the BAAD2 determination of “groups.” The GTD’s kidnappings on “FLEC” were attributed to “FLEC-FAC” in the BAAD2, while kidnappings by “FLEC-Renewed” in the GTD were attributed to “FLEC-Renewed” in the BAAD2.

A third challenge arose in the merging process, when the GTD and BAAD2 show apparent contradictions in their respective coding regarding groups’ engagement in kidnappings. Although the BAAD2 does not have data on how many kidnappings a group committed in a certain year, it has useful information on whether a group has engaged in *kidnapping for ransom* in a given year to fund its operations as part of its “criminal involvement” measures (Asal et al. 2019). Among the total of 1,386 group-year observations in the BAAD2, 119 were recorded as having engaged in kidnapping for ransom, while 1,267 were recorded as not having engaged in kidnapping for ransom. Logically, if a group has not committed kidnapping for ransom in a group-year unit (as coded by the BAAD2), it may still be recorded in the GTD as having engaged in kidnappings. But if a group commits kidnapping for ransom in a given year (as coded by the BAAD2), it would only make sense if the GTD also indicated it had committed kidnappings. Notably, among the 1,267 group-year observations where the BAAD2 recorded the absence of kidnapping for ransom, 1,106 were coded by the GTD as not having any kidnappings either. In other words, there are 161 group-year observations where the GTD indicated kidnappings were committed, and the BAAD2 indicated they were not kidnapping for ransom. However, there are also 34 group-year observations where an

organisation has zero GTD kidnapping records but was indicated by BAAD2 to have engaged in kidnapping for ransom. This is paradoxical and hence warranted further investigation.

Upon request, the BAAD2 granted me access to their source documents, which they relied on to code the kidnapping for ransom variable for the 34 group-year observations in question. A review of the source information revealed that the apparent contradictions between the GTD and BAAD2 in their kidnapping coding are likely a result of the different level of specification required to document the existence of kidnapping for a group-year unit. GTD is an incident-based dataset. Each entry unit of the database is a unique attacking event. In other words, there needs to be a specific identifiable kidnapping incident for the GTD data to show any kidnapping has been committed for the corresponding group-year unit in the BAAD2. The BAAD2's coding, however, relied on sources that documented the existence of kidnapping activities for a group-year observation without making a reference to a specific incident. For example, BAAD2 coded the Abu Sayyaf Group to have engaged in kidnapping for funding in 2005 (when GTD recorded no kidnapping incidents for the group in that year). The BAAD2 source document indicates that the coding was based on comments from the U.S. Department of State "*Country Report on Terrorism 2005*," which described Abu Sayyaf as a group that "receives funding...through acts of ransom and extortion." As such, a group may be coded by the BAAD2 as having committed kidnapping for ransom as long as there is a credible source in the public domain commenting that they have done so, even if the source does not refer to any specific cases of kidnapping. The GTD, on the other hand, would not possibly record the existence of kidnappings in absence of a reference to a specific event.

However, the question remains as to what to do with the 34 instances of logically contradictory coding between the GTD and the BAAD2. Shall I keep the GTD-derived coding of "no kidnapping" unchanged despite the BAAD2 indicating otherwise? Shall I change the

GTD coding of “no kidnappings” for these group-year observations and accept the BAAD2 indication that kidnappings existed (since they found information supporting kidnapping for ransom had existed for those group-year units)? To address this issue, I retained the GTD’s standard of incident-level specification to determine the correct coding of kidnappings. At the same time, I also reviewed the BAAD2 source documents to see if they provided incident-specific evidence to support the fact that kidnappings were committed. Where the BAAD2 source documents met the standard of providing information tracing to identifiable kidnapping incidents that happened during the relevant group-year units, I recoded the original GTD-derived coding of “no kidnapping” accordingly. Where the BAAD2 source documents only provided vague information commenting on the existence of a kidnapping practice without reference to specific events, I kept the original GTD coding of “no kidnapping.” Following this strategy, nine instances of substantial change were made to the GTD-derived kidnapping count as a result. In [Appendix II](#), I listed these nine instances of substantive changes and described the kidnapping incidents confirmed from the BAAD2 source document.

There are a number of reasons for my decision. First, it would undermine the validity of the data if I ignored the additional information from the BAAD2 indicating there were actually kidnapping (for ransom) incidents committed for the 34 group-year units, which were omitted by the GTD. Thus, keeping the GTD-derived coding without considering the BAAD2 information is not a good option. However, simply accepting the BAAD2’s determination on the presence of kidnappings (for ransom) for those 34 group-year observations is not a good practice either, as it is desirable to keep a consistent coding standard across all 1,386 observations. All the rest of the kidnapping counts are derived from the GTD records of kidnapping incidents. Simply accepting the BAAD2’s determination means adopting a relaxed standard for the 34 group-year observations in question, which would result in inconsistencies.

My approach keeps the GTD standard of requiring identifiable specific kidnapping incidents to back up the coding for the presence of kidnapping activities for a group-year observation. It is also the only way to derive meaningful kidnapping *count* data, which provides an extra layer of information compared with the binary coding scheme used by the BAAD2.

A limitation of this approach is that the revised coding – based on the GTD standard of requiring reference to specific kidnapping incidents – is determined only by the readily available information from the BAAD2 source documents. The BAAD2’s data-collection, which produced the source documents, was intended to cover kidnappings for ransom, not kidnappings in general. Moreover, because the BAAD2 measures were binary, they did not have to aim for an extensively search of all incidents of kidnapping for ransom in the public domain. Instead, finding one incident of kidnapping would be enough to conduct the binary-based coding. Therefore, information in the BAAD2 source documents is most likely an underestimate of the actual count of kidnappings committed. The level of underestimation might be alleviated by doing additional primary searches using open-source information. However, due to the limited time and resource available for this PhD, I was not in a position to pursue this strategy.

More broadly speaking, these instances of the apparent contradiction between the GTD kidnapping records and the BAAD2 coding on kidnapping for ransom point to the general issue of reliability and validity of data coming from the two sources. As discussed earlier, datasets developed from open-source information are affected by the screening and review strategies adopted by research teams. They are only partial/selective reflections of the reality, or what has been publicly reported, as filtered through the “lens” of their respective methodologies. Inconsistencies between datasets covering similar topics and subjects can happen, as observed



in the context of the GTD and BAAD2. This is a general limitation that all research relying on open-source data will inevitably suffer.

## **2.5 Concluding Remarks**

The area of research in terrorism and political violence has a long tradition of relying on datasets developed from open-source data (Silke, 2001). The GTD and BAAD2 are two sources of good-quality data that have been widely used in the relevant literature. However, like any other datasets coded from open-source information, the validity and reliability of GTD and BAAD2 data are limited by issues such as the selective-reporting by the media, common presence of missing data, constrained resources and bias towards sources in certain languages. Another key aspect to note is that both the GTD and the BAAD2 are generally developed with the pragmatic approach of trying to capture all major aspects of the underlying data. They are not designed with a particular theory in mind or to serve a specific research question. This makes them broadly useful for many topics in the area of political violence and terrorism. However, it also means that they sometimes do not perfectly measure that researchers are interested in studying. For example, as readers will see in later chapters, I use the BAAD2 measures on battlefield deaths as a proxy measure to control for the operational intensity of violent political groups because “operational intensity” has not been directly measured in the datasets.

In this chapter, I reviewed the background and methods employed by the GTD and BAAD2 to develop their coding. I explained why these two sources of data fit the purposes of this study, their limitations, how they were combined to create the GTD-BAAD2, and the challenges risen from the merging process. This is to give readers an overview of the background for the empirical data used in the later chapters of this thesis.

Specifically, Chapter 4 and Chapter 5 will use the GTD-BAAD2 to examine the main empirical question of my thesis – the possible relationship between extra-legal governance by violent political groups and their engagement in kidnappings. Meanwhile, Chapter 3 will rely on the GTD data on kidnapping incidents to analyse the patterns of missingness in perpetrators' information. Readers should assess the strength and limitations of the data and analyses bearing in mind the observations in this chapter.

## Chapter 3

### Kidnappings by Unidentified Perpetrators

#### 3.1 Introduction

On 1<sup>st</sup> July 2005, a group of five masked gunmen stormed Saad Bin Abi Waqas, a Sunni mosque in Baghdad, Iraq. Sheik Amer al-Tikriti, an Iraqi Sunni imam who was leading the Friday prayers, was forcefully dragged out of the pulpit and taken by the assailants. No groups claimed responsibility. However, the kidnapping was considered by the authorities as a retaliation for the assassination earlier that day of Kamal al-Deen al-Ghuraifi, an aide to the most influential Shiite cleric in Iraq, Grand Ayatollah Ali al-Sistani (*Irish Examiner*, 2005; *Seattle Times*, 2005). This event is one of the over tens of thousands of kidnappings recorded in the GTD. Despite the detailed account of how the kidnapping happened, however, there was not any information to ascertain the identity of the perpetrators.

In another GTD-recorded kidnapping, Hawa Dora and her daughter Magda Adam Hussein were abducted from their home in South Darfur, Sudan, on 17<sup>th</sup> February 2016, by a group of militants driving a land cruiser armed with a machine gun (Dabanga, 2016). A ransom amounting to USD 3,280 was requested. Hawa Dora's families managed to pay a quarter of the requested ransom, and the mother and daughter were released unharmed. However, the identity of the perpetrators, again, was not recognised and the event was coded as perpetrator(s) "unknown" in the GTD.

As illustrated in the two examples above, it is not uncommon to see GTD-recorded kidnappings where the perpetrator could not be identified or ascertained. Notably, 3,655

kidnapping incidents in the GTD have been coded to have "unknown" perpetrators, taking up 30.1% of the total of 12,138 GTD recorded kidnappings between 1970 to 2018. This percentage number is much lower than the 45.1% overall missing rate of perpetrator information in the GTD for all terrorist events. One possible reason is the higher incentive for perpetrators to disclose themselves for the ensuing negotiations. Another possibility is that perpetrators unintentionally expose information helpful for identifying them due to the on-going captivity of hostages.

While some studies have addressed the issue of missing information in large open-source datasets in general (Ackerman & Pinson, 2016; Arva & Beiler, 2014; LaFree 2010), none has yet examined missing perpetrator data for kidnapping events specifically. To what extent do we see kidnappings without being able to attribute them to particular perpetrators? How are these cases distributed over time and geographic locations? Do we see a lower proportion of kidnappings with unknown perpetrators among kidnappings for ransom since perpetrators would need to make ransom demands and disclose their identity? Examining these questions provides us with valuable information about kidnappings themselves. More importantly, it informs us of the validity of any analysis using perpetrator characteristics data. In other words, how much is there a risk of the known-perpetrator data disproportionately representing certain types of kidnappings, therefore introducing a bias that should be addressed and acknowledged?

Lacking information on the perpetrators makes it impossible to match the event data in the GTD with organisational profile datasets like the BAAD2. This means that political violence incidents with missing perpetrator information cannot be included in any group-level analysis. Since a major part of my PhD research examines kidnappings by violent political

groups at an organisational level, the missing-perpetrator issue is of particular concern for this study.

This chapter endeavours to address these questions in three steps. In Step 1, I will review the literature and theoretical discussions on how unbalanced media coverage and methodological issues in open-source event datasets like the GTD might influence the distribution of missing-information. This narrative review will provide some theoretical guidance on what one might expect to see in the patterns of missing perpetrator information in the GTD kidnapping data and how to interpret them. In Step 2, I will conduct a descriptive analysis to examine the temporal and geographic distributions of the GTD kidnappings with missing perpetrator information. This is to gauge some initial ideas on what the missing patterns look like. The results will serve as a basis to develop some tentative hypotheses on the underlying causal mechanisms leading to missing perpetrator information in the kidnapping data. In Step 3, I will conduct multivariate regression analyses, using variables measuring both geo-temporal context and event-characteristics that are hypothesised to be relevant to the missingness in perpetrator information.

The empirical analyses in Step 2 and Step 3 focus on the missingness of perpetrator information among kidnapping cases specifically. However, the literature review in Step 1 will necessarily take a broader perspective and discuss the more general question of processes that result in kidnapping cases that are entirely missing in the GTD dataset. The two processes, namely, whether a kidnapping event is included in the GTD at all and whether perpetrator information is available for those cases that are included, are best seen as interconnected.

## **3.2 Bias with Open-source Event Data: Literature Review and Theoretical Discussions**

Datasets based on open-source media information inevitably have to bear whatever limitations and biases exist in the contents of media reporting. The GTD is no exception. This has long been known to have posed reliability and validity challenges for research based on these datasets that researchers have advocated for a more careful and in-depth evaluation of their use (Ackerman & Pinson, 2016). The key issue of concern for this chapter is the possible structured missingness in data derived from open-source media information. By "structured missingness" I mean that the data is not missing at random (Rubin, 1976), but rather, follows a certain structure where particular types of cases or information are more likely to be included or excluded in the dataset due to the relevant ways the media reporting, data retrieval or coding processes were conducted. For example, a recent study by Arva and Beielser (2014) applied machine learning techniques to the overall pool of GTD data – all forms of attacks included – to examine patterns of missingness in perpetrator information. It found that missing information in perpetrator identity was highly predictable. The researchers used 75% of the GTD attacks as training data to predict the missingness of perpetrator information in the other 25%. The study achieved over 80% accuracy in the prediction of cases where perpetrator information was missing. Although machine learning prediction is purely data-driven, the underlying theoretical explanations predicting the missingness were not clear; their findings highlighted the concerns about the presence of structured missingness in the GTD and similar open-source event datasets. This issue of structured missingness should be carefully examined as it would have fundamental implications on how results from analysing available data should be interpreted.

Notably, there are three general pathways one could distinguish, through which event datasets based on open-source media information can have structured missingness. Firstly, there may be active selection processes by media agencies on what to cover and how contents are covered, which would directly influence the availability of information on certain cases. Secondly, a range of “objective” conditions and constraints (e.g., changes in the information technology, access to and provision of information by state agencies such as the police) could impact the capacity and quality of media reporting to different degrees and influence the pattern of availability or lack of perpetrator identity information in GTD kidnappings. Lastly, the GTD data collection and coding methods might also result in some regions or temporal periods getting better or worse quality data, therefore influencing the availability of perpetrator information. For example, how media sources were screened and selected for further review and inclusion to the datasets? What languages were covered in the review of contents? The following pages will discuss each of these pathways.

### ***3.2.1 Bias Introduced by Active Media Selection***

Media does not and cannot report on all events in equal manner. The processes and the range of factors that affect how real-world events are selected and presented as “news” have been extensively studied by media and communications scholars, conceptualised as “news values” or “newsworthiness” (see Harcup & O’neill, 2001; Harcup & O’neill, 2017; Galtung and Ruge, 1965; Shoemaker et al., 1991; Staab, 1990). The newsworthiness of an event affects the likelihood that media would report it, how much coverage and resources would be allocated to cover the event, which would then influence how much details one could find in the published media content.

The media coverage of terrorism and political violence has also been noted to follow the rules of news-selection. Many terrorist attacks never make it into the news (*see* Behlendorf et al., 2016; Weimann & Brosius, 1991). Weimann and Brosius (1991) found that only one-third of international terrorism events were reported in the media by comparing news coverage by major television networks and international newspapers (in five languages) to the international terrorism attacks recorded in the RAND Corporation's chronology of international terrorism. The latter was coded based on both open-source media reports, government and military intelligence. Behlendorf and colleagues (2016) compared media-based data sources on terrorist attacks in India to local police data and also found substantial under-reporting in the media-based records.

Studies of newsworthiness have identified a range of factors that influence media selection. This includes both event-specific characteristics, as well as contextual regional or temporal factors, for example, timeliness, novelty and sensation, geographic and political proximity, prominence, among others (Staab, 1990; Weimann & Brosius, 1991). Some of these factors have particular implications in the coverage of terrorism and political violence.

The media tends to capture more sensational and dramatic events (Staab, 1990; Weimann & Brosius, 1991). Studies of media coverage of terrorism and political violence are consistent with this observation. A number of studies found that events with greater damage or consequences, such as those with a higher death toll or injuries, got more media coverage (Behlendorf et al., 2016; Chermak & Gruenewald, 2006; Kearns et al., 2019; Weimann & Brosius, 1991). Similar tendencies are also documented in the media coverage of crimes, where homicides, sexual offences and other more sensational predatory violence received more coverage (Dowler, 2006; Lundman, 2003 September; Sorenson, Manz, & Berk, 1998). In addition to casualty and fatality, studies have also found that the types of attacking tactics or



targeting choices that inflict greater fear and drama – such as kidnappings and hijacking – have a higher chance of receiving more media coverage (Chermak & Gruenewald, 2006; Gilbert, 2020a; Weimann & Brosius, 1991).

Media selection is also known to be influenced by "status" (or sometimes called "prominence") and "proximity" factors (Buckalew, 1969; Staab, 1990). This means that media tends to select content based on the prominence of the people or countries involved or to project geopolitical or cultural centralism values of the intended audience. "Proximity" can be exemplified in different forms such as geographical, political or cultural closeness to the intended audience of the media (Staab, 1990, citing Schulz, 1976). Both status and proximity may have several important implications for media coverage of terrorism and political violence:

Studies of international media coverage and media flow consistently found a tendency of centralism in favour of the prosperous English-speaking countries (Guo & Vargo, 2017; Lorini et al., 2020). Based on the World System Theory developed by Wallerstein (1974), which divides world countries into a "core" - "semi-peripheral" - "peripheral" structure, Guo and Vargo (2017) analysed traditional media and new online media, where they found that the "core countries" (US, UK, France, etc.) received much more salient international media coverage and played a greater role in setting the media agenda. Studies on the media coverage of terrorism and political violence seemed to echo these US-centric or Western-centric tendencies identified in general media studies. Media content often reflects the geopolitical interest, government agenda, cultural values and stereotypes of the "core countries" and their domestic audiences. For example, events that occurred in areas of political and economic significance to the US received more media coverage (Shoemaker et al., 1991). Multiple studies also found that domestic attacks in the US and in the Middle East region tend to get more coverage than the rest of the world (Chermak & Gruenewald, 2006; Kearns et al., 2019;

Weimann & Brosius, 1991). In contrast, media coverage on terrorism and violence in developing countries has been poor and inconsistent (Behlendorf et al., 2016).

Stereotypes and notoriety among the targeted audience of the media also seem to influence selection bias. Gilbert (2020a) analysed the amount of news coverage on kidnappings of Americans abroad and found that victims by ISIS got significantly more media attention than others, despite the fact that most American victims of kidnappings were abducted in Mexico and Nigeria. Kearns and colleagues (2019) studied domestic terrorism attacks in the United States and found that terrorist attacks by Muslim perpetrators are more likely to be reported after controlling for types of targets and casualty levels.

### ***3.2.2 Bias Introduced by Objective Conditions***

Objective conditions refer to the external factors of the media selection and publication process that would influence the capacity and quality of media reporting on real-world events, and therefore, shaping the pattern of availability or missingness of perpetrator identity information in the GTD. For example, countries and regions differ greatly on the level of freedom allowed to the press by the authorities (*Reporters without Borders*, 2020). As identified by LaFree (2010), governments' censorship and disinformation efforts can heavily restrict media reporting on terrorism and political violence in certain regions, therefore influencing data availability in the GTD. Another factor is that media reports often rely on information provided by state agencies. The quality of information possessed, and the extent to which access is allowed by the relevant state agencies (e.g., police, the military, etc.) may constrain how much media actors could report on certain events (see Chermak, 1995; Mawby, 1999 for the role of police in media access and presentation of crimes; Cassell, 1984; Pfau, 2004 for discussions on media access and reporting on military operations).

On the temporal dimension, technological advancement has also made a significant impact on ways media reporting has been conducted worldwide. The diffusion of digital and information technology since the 2000s fundamentally changed the traditional print-based production-distribution cycle and the model of the media industry (Bradshaw, 2012; Grabowicz, n.d.). The internet and social media networks now "have the capacity to define the public agenda in a much more immediate and global way" than the print-based journalism (Orihuala, 2019). With more news being reported globally in a more immediate manner, there is likely a temporal bias built into the availability of data in the GTD, since media coverage in the digitalisation and internet era may have higher chances of providing more data on perpetrator identity.

However, the level of missing perpetrator information in GTD kidnapping records does not necessarily decline in the digitalisation era. The increased capacity in media content production not only means more details on perpetrator identity are available, but it may also have the effect that previously underreported cases now have a higher chance of making it to the open-source information domain via websites and social media. This includes cases with less information and details required to make a good news story, which are likely to be excluded by the traditional news selection process. The ultimate impact of technological advancement, digitalisation of the media and the rise of the internet still needs to be investigated empirically and needs to be assessed with these caveats in mind.

The profound impact of information technology is not only seen in the media industry but also on the capacity of research teams to collect and code the data from media sources. The next section will outline these changes pertaining to the GTD in more detail.

### 3.2.3 Bias Introduced by Data Collection Methodology

The GTD, as a prolonged data collection project covering data from 1970 to 2018, underwent several historical phases and is the product of evolving data collection methodology and technology. Figure 3.1 shows the four major phases of GTD primary data collection in chronological order, based on information from the GTD codebook (2019). While the GTD team has been making updates retrospectively to ensure maximal consistency in the definitions adopted and the coding guidelines, some key capacity and technological developments are important to note.

**Figure 3.1**

*Historical Phases the GTD: Primary Data Collection Institutions and the Corresponding Periods of GTD-documented Attacks*



The initial project was started by the Pinkerton Global Intelligence Service (PGIS), a private security company in the United States. LaFree (2010) reported that the PGIS-phase primarily relied on wire service and newspapers as data sources. It was not until the start of the 1990s that internet sources were increasingly relied on.

The second phase of GTD data maintenance and coding was a collaboration project between START and the Centre for Terrorism and Intelligence Studies (CETIS) in 2005 (GTD

Codebook, 2019). During this time, existing data inherited from the PGIS phase was computerised. Moreover, the CETIS phase continued the coding of attacks beyond 1998 in a digital format, utilising professional databases such as Lexis-Nexis and "Open Source Enterprise" ([www.opensource.gov](http://www.opensource.gov)), which became available for systematic monitoring to feed into the GTD data collection scheme. LaFree (2010) reported that the CETIS team consisted of 25-35 data collectors fluent in six languages, who would manually review source information filtered through the monitored databases.

A more crucial technology and capacity upgrade happened in 2012, when an automation process using machine learning and natural language processing algorithm was introduced to filter results for human review. This was reported to have substantially increased the capacity of the GTD team to find potentially relevant information in the over one million news articles published daily worldwide; and as a result, this automation process enabled a "much broader and deeper" review of the GTD-relevant open-source data (GTD Codebook 2019, p.10). However, the automation process implemented since 2012 only works with the English language. Non-English content would only be included if English translations were available on "Open Source Enterprise," which the GTD started monitoring since 2008.<sup>6</sup> It is not clear how much non-English content was supplemented via this system and how much it represents the actual body of non-English content. But it is highly likely that the GTD information remains heavily biased towards English-language sources.

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<sup>6</sup> Note that the Open Source Enterprise was decommissioned in mid-2019. This change does not influence my analyses, which only covers GTD data up to 2018.

These transitions and changes in GTD methodology and capacity over the years discussed above have two important implications on how missing information might influence the coding process. First, the GTD benefited from the technological and methodological advancements in information processing, which, along with the digitalisation of media reporting, greatly enhanced its capacity to obtain and capture the relevant information needed. The level of missing information decreased as the GTD went through methodological and capacity upgrades, if everything else being equal. Second, it seems that the way GTD operated resulted in a substantial bias towards including events reported in English language. The extent to which this language-source bias influenced the validity of the GTD data is difficult to assess and should be considered as a dynamic process that would change over time.

### ***3.2.4 Summary***

This section aimed to review possible sources of bias in the GTD data by focusing on three pathways through which structured missingness could be introduced into the perpetrator information, namely: active content selection by the media, objective conditions influencing media coverage, and GTD data collecting methodology.

For active content selection by the media, the review focused on the theory of “newsworthiness” and key empirical findings pertaining to the reporting of terrorism and political violence. In particular, existing studies found that the media tends to report events of a more sensational, lethal or novelty nature. Moreover, the media selects contents based on status and proximity preferences, for example, media may cover matters of (or of interests to) the “core” countries more diligently than the “peripheral” ones (Guo & Vargo, 2017); more coverage of certain regions, countries or ethnic, religious groups when they are of strategical interest to, or fit into the domestic agenda of, the “core” countries (Shoemaker et al., 1991).

This literature review section also identified that the evolving information technology – the rise of the internet and social media networks – have fundamentally transformed the traditional media industry, as well as the GTD methodology starting from the early 2000s. The capacity of media content production, the capacity of GTD data retrieval and coding had substantially improved in the last decade and have likely reduced both the amount of under-reporting and missing information in perpetrator identity. Another GTD methodology-related finding is that the GTD is likely biased in favour of English-language content.

Lastly, regional differences in the media resources and the freedom allowed for media reporting also serve as an important objective condition that would influence information availability and data missingness.

To synthesise, existing literature suggests that both incident-level characteristics – such as lethality, sensation and novelty of the attack – as well as contextual geographical temporal dynamics (e.g., changes in technology, media industry and GTD data retrieval methods, regional geopolitical importance, etc.) should impact what would be available in the GTD. Perpetrator information in the GTD kidnapping data is unlikely to be missing at random, but rather, likely follows a structured pattern associated with the lethality or novelty level of the event, or the temporal geographical factors discussed in the earlier pages.

If data is not missing at random, it is important to carefully analyse the processes that have generated the patterns of missingness. In this regard, a range of empirical questions can be asked: what do the geographical temporal trends look like for missing perpetrator information in the GTD kidnapping? Do they reflect what we found from the literature in this section; for example, would there be fewer missing data in more lethal kidnappings? Do developing countries or strategically marginalised regions get less covered in the GTD? Are

the digitalisation of media reporting and the capacity upgrade made by the GTD team reflected in the data patterns? The next two sections will examine these questions using the GTD data on kidnapping incidents.

### **3.3 Perpetrators "Unknown": Temporal and Geographic Patterns in GTD Kidnappings**

The GTD contains 12,138 kidnappings between 1970 and 2018, of which 3,655 have "unknown" perpetrators. The previous section reviewed the existing literature and identified a few important ways that geographical and temporal patterns may be observed in the missingness of perpetrator identity of kidnappings in open-source event data. This section will begin by exploring the temporal trends and geographic patterns in the GTD kidnappings with "unknown" perpetrators.

#### ***3.3.1 Temporal Trends by Decades***

Table 3.1 shows the by-decade changes of both the numbers and percentage of kidnappings by unknown perpetrators among all kidnappings in the GTD. The proportion of kidnappings by unknown perpetrators increased since the 1970s along with the increase of the total number of kidnappings, reaching the highest of 44.1% in the 1990s. It then declined in the ensuing decades (e.g., 36.2% for the 2000s and 25.7% for the years 2010 to 2018). A chi-square test of independence was performed to examine whether the distribution of kidnappings by unknown perpetrators is independent from time (the decades during which the kidnapping incident occurs) and the results show statistical significance,  $X^2(4, N = 12,138) = 234.10, p < .001$ . This means that kidnappings by unknown perpetrators were not randomly distributed, but significantly varied by the decade in which they occurred.



**Table 3.1**

*GTD Kidnappings by Unknown Perpetrators (Perp.): Counts and Percentage (Perc.) by Decades (1970 - 2018)*

	70s	80s	90s	00s	10s	Total
All GTD kidnappings	536	1,118	1,475	1,684	7,325	12,138
Unknown perpetrator	163	348	650	610	1884	<b>3,655</b>
Perc. Perp. Unknown	30.4%	31.1%	44.1%	36.2%	25.7%	<b>30.1%</b>

It is hard to ascertain exactly why the proportion of kidnappings by unknown perpetrators changes in the way reflected in the data as shown in Table 3.1. However, the decline in the proportion of unknown perpetrators from the 1990s into the 2000s and 2010s, despite a continued increase of the total number of kidnappings recorded in the GTD, is consistent with the notion that the transition into the digital era led to an increased amount of available information in the public domain. As discussed previously, technological advancement enabled much more to be reported with more details in a timelier manner. Simultaneously, the GTD team also started to take advantage of the availability of professional open-source datasets in the early 2000s. Together, this may have increased the likelihood of obtaining more detailed information relevant to violent political events generally, and hence to obtain perpetrator information in GTD documented attacks and kidnappings.

In addition to the enhanced capacity of the media industry and the more comprehensive GTD data collection method, possible changes in the behaviours of perpetrators might also have influenced the availability of information on perpetrator identity. The rise of internet transformed the media ecosystem in a way that allowed the mass end-users to easily generate and disseminate content, shaping public agenda and discourse narrative (Bradshaw, 2012; Orihuela, 2019). Groups engaging in violent political campaigns may have perceived the more

accessible and immediate communication system as an opportunity to promote their agenda. Social media platforms allow the perpetrating groups to capitalise on the publicity generated by their attacks, where they might create content promoting their causes and favourable narratives, boosting their reputation and seeking to expand the pool of sympathisers and appealing to potential recruits. As a result, some perpetrators might become more interested in disclosing their identity and making active use of media channels.

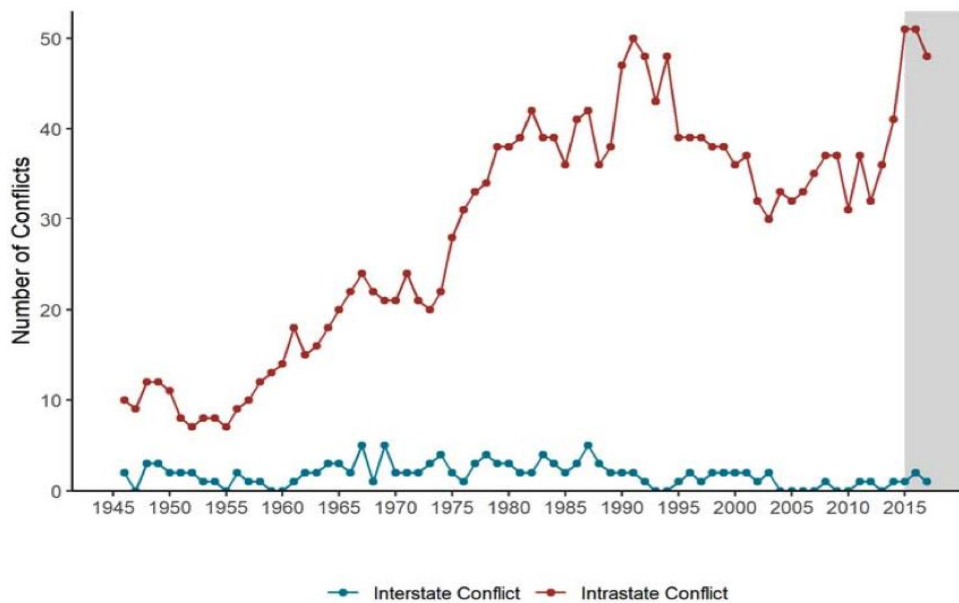
In addition to the technological aspects, the temporal trends of missingness in perpetrators' identity observed in the GTD kidnapping data may also be influenced by geopolitical contexts. The world has witnessed a growing amount of intrastate armed conflicts involving non-state actors since the Second World War, which peaked in the 1990s and declined gradually until surging up again in the 2010s (see Figure 3.2 from Cederman & Pengl, 2019; see also Dupuy & Rustad, 2018; Pettersson & Eck, 2018).

The trend of internal conflicts – as Figure 3.2 shows – largely mirrors the temporal changes of the missingness in perpetrators' identity observed in Table 3.1, except for the 2010s period. It could be the case that, between the 1970s and the 1990s, more kidnappings were happening in areas suffering intrastate armed conflicts, where ascertaining the identity of perpetrators would be more challenging with limited media reporting on the ground.

For the 2010s, where intrastate conflicts spiked again without witnessing another surge in the level of missing perpetrator information, it is possibly a result of “push-and-pull” effect given the rise of the internet and social media, which would lower the level of missing information. However, more detailed evidence to support this argument is currently lacking and further analyses are needed to fully explore this possibility.

**Figure 3.2**

*Armed Conflicts between 1945 to 2015: Comparison of Interstate vs Intrastate Conflicts*



Source: UCDP Conflict Data Program

*Note.* Reprinted from "Global Conflict Trends and their Consequences," by Cederman, L. E., & Pengl, Y. (2019). United Nations Department of Economic and Social Affairs. Retrieved from [https://www.un.org/development/desa/dpad/wp-content/uploads/sites/45/publication/SDO\\_BP\\_Cederman\\_Pengl.pdf](https://www.un.org/development/desa/dpad/wp-content/uploads/sites/45/publication/SDO_BP_Cederman_Pengl.pdf)

### **3.3.2 Geographic Regional Patterns**

The GTD categorised attacks into 12 regions based on their geographic locations.<sup>7</sup> Notably, 94.3% of all kidnappings and 92.5% of all kidnappings by “unknown” perpetrator concentrated in only six regions: South Asia, Middle East & North Africa, Sub-Saharan Africa, South America, Southeast Asia and Central America & Caribbean (on descending order of how much

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<sup>7</sup> North America, Central America & Caribbean, South America, East Asia, Southeast Asia, South Asia, Central Asia, Western Europe, Eastern Europe, Middle East & North Africa, Sub-Saharan Africa, Australia & Oceania.

GTD data was attributed to the region). These six regions are also responsible for 85.7% of the overall GTD recorded attacks.<sup>8</sup> Regional composition statistics are summarised in Table 3.2 below.

**Table 3.2**

*Regional Composition of GTD-documented Attacks, Kidnappings and Kidnappings by Unknown Perpetrators 1970-2018: The Six Major Regions*

	All Attacks		Kidnappings		Kidnappings by Unknown Perpetrators	
	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%
South Asia	48,266	25.2	3,604	29.7	1,080	29.5
Middle East & North Africa	53,110	27.7	2,869	23.6	899	24.6
Sub-Saharan Africa	19,752	10.3	2,228	18.4	633	17.3
South America	19,292	10.1	1,454	12.0	326	8.9
Southeast Asia	13,363	7.0	786	6.5	150	4.1
Central America & Caribbean	10,359	5.4	506	4.2	291	8.0
Others	27,322	14.3	691	5.7	276	7.6
Total N	191,464		12,138		3,655	

*Note.* Data source: GTD 1970 -2018

Table 3.3 zooms in on these six regions where kidnappings predominantly concentrated and shows the regional distribution of GTD-documented kidnappings ( $N = 11,447$ ), the kidnappings by unknown perpetrators ( $n = 3,379$ ) and, most importantly, the percentage of kidnappings by unknown perpetrators by regions over the decades.

Compared with the overall GTD kidnapping trends, the concentration of kidnappings by unknown perpetrators shifted among regions in a way that mirrors the patterns observed in

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<sup>8</sup> The top-six list looks largely similar to those of the overall GTD attacks, with the exception of Western Europe, which takes up 8.8% of all-types GTD attacks but only 2.2% of kidnappings.

the general kidnapping data. South America and Central America & the Caribbean had the highest percentages of missing perpetrator information in the 1970s and 1980s. The areas with the highest levels of missingness then shifted to South Asia, Middle East & North Africa and Sub-Saharan Africa starting in the 1990s, then predominantly concentrated in the latter three regions in the 2000s and 2010s. Since the volume of kidnappings is much greater in the last decades, these three regions – South Asia, Middle East & North Africa, and Sub-Saharan Africa – are also the top three areas for both the total amount of kidnappings and kidnappings by unknown perpetrators. Together, they take up a total of 71.7% and 71.5% of all kidnappings and unknown-perpetrator kidnappings in the GTD. The respective percentages of kidnappings by unknown perpetrators of these three regions are very close to the overall average 30.1% (see Table 1, 30.0% for South Asia, 31.3% for the Middle East and North Africa, and 28.4% for Sub-Saharan Africa). However, a much higher percentage at 57% of kidnappings in Central America & Caribbean do not have known perpetrators. In contrast, a lower-than-average level of kidnappings by unknown perpetrators was observed for Southeast Asia and South America, 19.1% and 22.4% respectively. Therefore, the GTD kidnapping data clearly shows some substantial between-region variation in their overall level of missingness of perpetrator information.

To further examine how the regional differences changed over time, I calculated the by-decades percentages of kidnappings by unknown perpetrators for each geographic region, shown in the right half of Table 3.3.

**Table 3.3**

*Regional Counts and Percentage (Perc.) of GTD Kidnappings by Unknown Perpetrators (Perp.): By-decades Distribution of Selected Regions*

	Unknown Perp.	Total kidnapping	Perp. Unknown	70s		80s		90s		00s		10s	
	<i>n</i>	<i>N</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
South Asia	1,080	3,604	30.0	0	0.0	19	30.7	90	40.3	210	32.1	761	28.6
Middle East & North Africa	899	2,869	31.3	6	21.4	51	33.8	61	37.2	237	59.7	544	25.6
Sub-Saharan Africa	633	2,228	28.4	2	5.6	6	15.0	64	50.0	103	38.4	458	26.1
South America	326	1,454	22.4	67	36.4	77	19.2	149	31.0	11	5.7	22	11.3
Southeast Asia	150	786	19.1	1	5.0	3	5.5	88	48.1	22	19.3	36	8.7
Central America & Caribbean	291	506	57.5	35	38.9	186	60.0	66	66.0	0	0.00	4	80.0
Total	3,379	11,447											

*Note.* The six regions presented in this table are the top six regions by their number of kidnappings documented in the GTD. Figures in these six regions account for 94.3% of total GTD kidnappings and 92.6% of all kidnappings by "unknown" perpetrators. The "black-grey" colour coding: percentage statistics were displayed in black colour only if the relevant region-decade unit has more than 50 kidnappings. Region and decade units having less than 50 kidnappings are displayed in grey colour instead and should be read with caution.

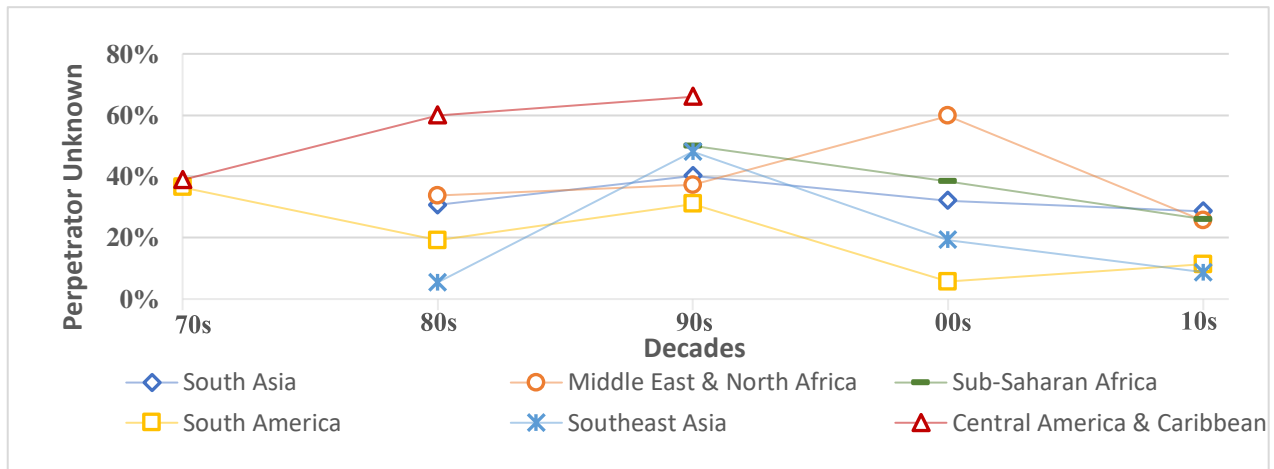
It is important to note, however, that percentage values may be misleading when the sample size is small. For example, the drastic change between the 2000s and 2010s for the Central America and Caribbean region – from zero to 80% unknown perpetrator rate – is a result of having only one kidnapping (perpetrator identified) during the 2000s and having five kidnappings during the 2010s when four could not be attributed to a perpetrator in the GTD records.

To address this problem, a black-grey colour code system was adopted to show percentage statistics in black only for those region-decade units where there were more than 50 cases of total kidnappings. I used a lighter grey colour to mark the region-decade units with less than 50 total kidnappings. Percentages for these units would be very sensitive to small fluctuations in kidnapping counts and may not serve as reliable and comparable indicators of the actual level of kidnappings by unknown perpetrators.

Figure 3.3 shows the "black coloured" data points and visualises the by-decades changes for different regions in their levels of missingness in GTD kidnappings. As Figure 3.3 shows, there is a universal increase in the percentage of kidnappings with unknown perpetrators from the 1980s to the 1990s, followed by a gradual decline from the 1990s to the 2010s across most regions. This trend seems to mirror the trajectory of intrastate armed conflicts globally, as discussed earlier (see Figure 3.2), which had been steadily climbing up since the Second World War, peaked in the 1990s and then gradually levelled off. Moreover, the technological advancements since the turn of the Millennium – the digitalisation of media and journalism industry, the rise of the internet and social media networks – may also have contributed to the general decline of missingness in GTD kidnappings observed in the data. More specifically, the effects of technological change may partly account for the general declining trend from the 1990s to the 2010s observed across most regions.

**Figure 3.3**

*Percentage of GTD Kidnappings by Unknown Perpetrators: By-decades, Selected Regions*



*Note.* Total GTD kidnappings  $N = 11,447$ ; total GTD kidnappings by unknown perpetrators  $n = 3,379$ . Data points only shown if the region-decade units have more than 50 GTD kidnappings to calculate the percentage values of kidnappings by unknown perpetrators.

One notable exception, though, is the increase in missing perpetrator information for the Middle East and North Africa from the 1990s to the 2000s. A possible explanation is the Iraq war, which began in 2003 with the invasion by a US-led coalition and led to a protracted multi-party conflict until 2011 (“Iraq War,” 2019). It saw a huge increase in both the total number of attacks and kidnappings as the region destabilised, with multiple active violent political groups operating and great difficulties for journalists to provide high-quality media coverage in these conflict zones. All of these factors could have contributed to the increased challenge to ascertain perpetrator identity for kidnapping cases. Most importantly, this means that analyses in the merged dataset and based on cases with known perpetrators will underrepresent the Middle East & North Africa region because a high proportion of cases cannot be attributed to a perpetrator group, and therefore cannot be matched with the BAAD2.



Another notable case is the Central America and Caribbean region, where kidnappings by unknown perpetrators were consistently above average during the 1970s, 1980s and 1990s (38.9%, 60.0% and 66.0% respectively). These are some of the highest percentages of missing perpetrator data for kidnappings in the entire GTD dataset. The next section will delve into the details of this region and discuss some tentative explanations on why the Central America and Caribbean showed a notably higher level of missingness in perpetrator information.

### ***3.3.3 Kidnappings by Unknown Perpetrators in Central America and the Caribbean Region***

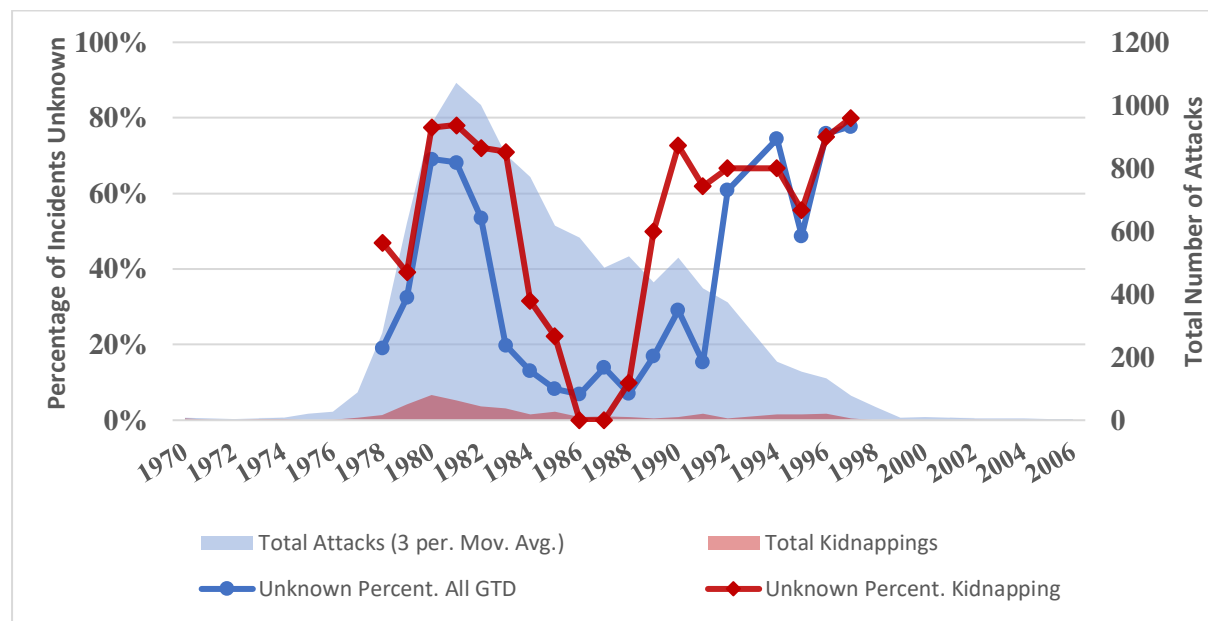
Throughout the 1960s and 1970s, many countries of the Central America and Caribbean region suffered huge levels of social inequality and a sense of injustice among the impoverished populations. Waves of mass movements and social unrests voicing these sufferings were repeatedly met with state repression and finally fuelled into full scale civil wars in Guatemala, El Salvador and Nicaragua in the late 1970s (Brockett, 2005). The GTD data on overall terrorist attacks and kidnappings reflects this process. Figure 3.4 shows the temporal changes in the number of overall GTD recorded attacks (light blue area) and kidnappings (red area) for Central America and the Caribbean region between the year 1970 up to 2006, during which more than 99% of all overall attacks and kidnappings recorded in the GTD for this region happened. The data shows a spike in all forms of attacks, including kidnappings, starting in the late 1970s into early 1980s.

As previously discussed, Central America and the Caribbean region were consistently higher in missingness of perpetrator information compared with other regions between 1970s and 1990s (*see* Figure 3.3). Is this a result of systematic "neglect" in media coverage of the region? Or are there any particular situations or characteristics that made it difficult to establish

and report perpetrators' identity during these decades? To explore these questions, I plotted the yearly percentages of overall GTD attacks and kidnappings by unknown perpetrators in Central America and the Caribbean in coloured lines, blue and red respectively (*see* Figure 3.4). Note, again, I only calculated the percentage values when there are over 50 total attacks for the year, so the percentage lines started in the year 1978 and ended in 1997, during which 98% overall GTD attacks and 94% kidnappings for the region had happened.

**Figure 3.4**

*Percentage of Incidents by Unknown Perpetrators in Central America: Overall GTD Attacks (N = 10,359) and Kidnappings (n = 506) 1970-2006*



*Note.* Percentage values are shown only for years when there is 50 or over total attacks each year (1978 to 1997).

Figure 3.4 reveals some striking changes over the years. First, the two trend lines of missing perpetrator information follow almost exactly the same trajectories. This suggests it might have been the same set of contextual factors that have influenced the missingness in perpetrator information for both kidnappings and all forms of attacks alike. Second, both lines

start with a sharp increase in the late 1970s along with the increase in overall violence level as visualised in the area shades, which was then followed by a deep "U" shape pattern during the 1980s. More specifically, the data shows a steady drop in the percentage of unknown cases starting in the early 1980s from almost 80% to below 20% in the mid or late 1980s, and then an increase back up to above 60% in the early 1990s.

As discussed earlier, the increase of missingness in perpetrator information in the GTD kidnappings seems to coincide with an increase in internal armed conflicts globally (*see* Figure 3.2). This would explain the initial increase in missing perpetrator level for the Central America region in the late 1970s and the early 1980s, when multiple civil wars broke out. However, the big puzzle is, what is driving the ensuing big "U" turn in the mid-1980s?

To develop a tentative answer, I first examined the country-level composition of the GTD kidnappings during the years when percentage values are calculated in Figure 3.4 – 1978 to 1997. The data shows that the observed patterns are almost exclusively driven by three countries: Guatemala, El Salvador and Nicaragua. These three countries account for over 90% of all the kidnappings in the region during the time ( $N=477$ ). Table 3.4 summarises the sub-regional distribution by categorising Central America and the Caribbean region into Guatemala, El Salvador, Nicaragua and "others."

Notably, Guatemala and "others" have a much higher percentage of kidnappings by unknown perpetrators – over 75%, compared with 46.7% in El Salvador and 20.5% in Nicaragua. It appears that at least part of the reason why the data shows a deep decline in missingness of perpetrator information in the mid-1980s (bottom of the "U" shape) was related to the dynamics of change in the composition of where the kidnappings were happening.

**Table 3.4**

*GTD Kidnappings in Central America and Caribbean 1978-1997 (N=477): Main Contributing Countries and Percentage (Perc.) by Unknown Perpetrator*

	GTD Kidnappings	Regional Perc. Taken (Accumulated)	Perc. by Unknown Perpetrators
	<i>N</i>	<i>%</i>	<i>%</i>
Guatemala	202	42.3	78.7
El Salvador	150	73.8	46.7
Nicaragua	78	90.1	20.5
Others <sup>a</sup>	47	100.0	76.6
Region Wide	477	n/a	58.7

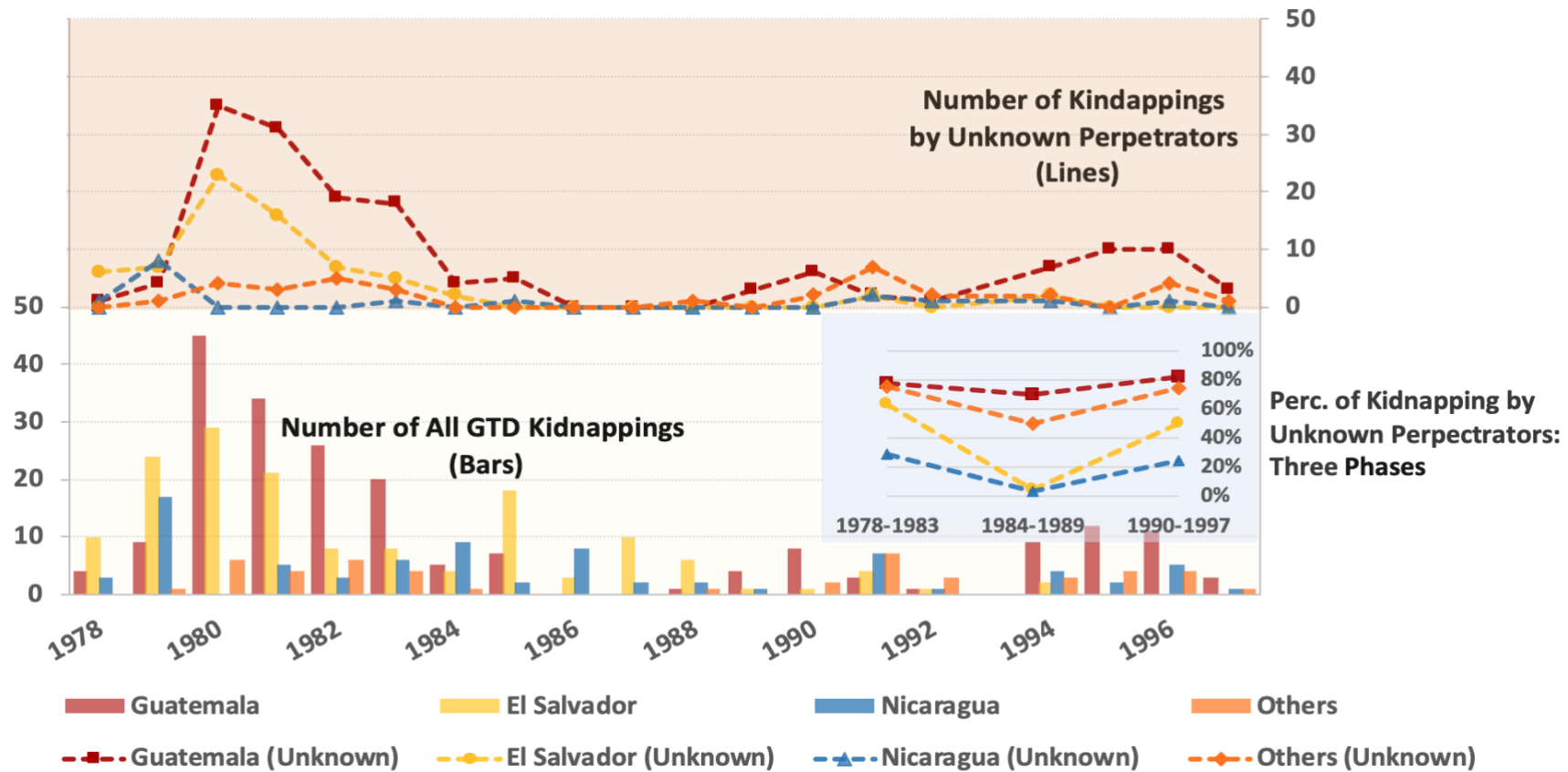
<sup>a</sup>. “Others” includes Belize, Costa Rica, Dominican Republic, Haiti, Honduras, Jamaica and Panama.

Figure 3.5 visualises the trajectory of kidnappings by these three countries, as well as their respective yearly counts and percentages by unknown perpetrators. Periods of time where high missingness is witnessed in Central America – the early 1980s and late 1980s – were when Guatemala kidnappings comprised the main part of the total numbers. In contrast, kidnappings as documented in the GTD mostly happened in El Salvador and Nicaragua in the period between 1984 and 1989, when the overall missingness level of perpetrator information in the Central America and Caribbean region was historically low.

To explore potential differences in the temporal trajectories in the level of missingness among different Central American and Caribbean countries, I also calculated the sub-regional percentages of kidnappings by unknown perpetrators in three different phases (by equally dividing the relevant time period from 1978 to 1997 into three six-year spans: 1978 to 1983,

**Figure 3.5**

*Guatemala, El Salvador, Nicaragua and Other Countries in the Central America and Caribbean Region 1978-1997: GTD Kidnappings (N=477), Numbers and Percentages (Perc.) of Kidnappings by Unknown Perpetrators*



1984 to 1989, and 1990 to 1997). Figure 3.5 plotted these sub-regional percentages into trend lines (in the small square area on the right bottom). Interestingly, these trend lines show a similar decline (although to a different extent) in the mid-1980s across Guatemala, El Salvador, Nicaragua and other countries in Central America and the Caribbean. As such, it seems that the "U" shape trajectory of perpetrator missingness observed in the aggregated data for the entire Central America and Caribbean region is driven by a combination of two factors: first, a smaller number of kidnappings in Guatemala in the mid-1980s (which had a much higher level of missingness over the entire period observed than other Central American countries); and second, a generally low level of missingness (respectively high proportion of identified perpetrators) in the 1984-1989 period across all sub-regions in Central America and Caribbean. The subsequent questions are, first, why Guatemala and "others" have a much higher-level of missingness in perpetrator information for their kidnappings compared with El Salvador and Nicaragua; and second, what were the situations that had caused a universal decline in the mid-1980s across sub-regions in Central America and the Caribbean?

It is likely that a combination of different factors affected these patterns. Possibly the most important general background factor is that all three countries – Guatemala, El Salvador and Nicaragua – underwent brutal civil wars during the late 1970s dragging on to the 1990s. This has to be understood in the larger global political context of the Cold War between the United States and the Soviet Union to assert their influence in third world countries. The United States backed the right-wing governments in Guatemala and El Salvador to prevent revolutionary guerrillas from taking power; and in Nicaragua, financed, armed and trained various right-wing rebel groups (known as the “Contras”) to revolt against the left-wing Sandinista government (“Contra,” 2013; Pach, 2006; Walker, 1987). Without reviewing the full history, social-political context and media industry in these three countries, it is nearly

impossible to ascertain why Guatemala has a substantially higher proportion of kidnappings by unknown perpetrators than El Salvador and Nicaragua. Here I only aim to offer some tentative suggestions from looking at the domestic landscape of political conflict within those countries.

As discussed in the literature review, the patterns of missing information in the GTD would be influenced by its methodology in screening data sources and the objective conditions that shape how open-source media contents are generated. The GTD data used in Figure 3.5 – 1978 to 1997 – belongs to the phase of data collection primarily conducted by the PGIS, a US private security company that mainly relied on wire service and newspapers as their sources (LaFree 2010). As a result, government censorship on the press and disinformation efforts would presumably have a detrimental impact on the information available to the PGIS, particularly for violence committed by forces that have aligned interests to the authorities. More specifically, the differences among Guatemala, El Salvador and Nicaragua in missing information may be attributable to the differences in the ability of the respective state authorities to control media coverage of kidnapping cases, especially the coverage of cases committed by groups close to those in power.

During the period of time covered in Figure 3.5, the military had been the predominate ruling force in Guatemala politics. After a series of military coups and dictatorships since 1954, a military-initiated election produced its first civilian president Vinicio Cerezo in 1986 (Calvert, 1985; Ibarra 2006; Schirmer, 1998). However, based on Schirmer's extensive interviews with the military personnel at the time, the change to a government headed by a civilian did not really change the nature of Guatemala being a military state or limited the military power in any meaningful way, but rather, created a "unique Counterinsurgent Constitutional State in which State violence has been reincarnated as democracy" (Schirmer, 1998 p.258). Similarly, in El Salvador, which was ruled by a series of military junta governments until 1982,

extrajudicial killings and disappearances by military death squads continued until the peace agreement in the 1990s (Betancur et al., 1993). These military dictatorship governments in Guatemala and El Salvador were heavily backed by the Reagan administration both in terms of military aid and political rhetoric on the international stage (Ibarra, 2006; Schirmer, 1998).

The Sandinista government in Nicaragua, on the other hand, was a left-leaning party that came to power by forcefully overthrowing the Somoza dictatorship in 1979. It was democratically elected in 1984 and stepped down in 1990 after losing the election. The Reagan administration considered the Sandinista government a threat to US strategic interests; they not only heavily funded and trained the anti-government Contras rebel groups, but also waged an adverse media campaign to demonise the Sandinista government so they could justify the huge military aid expenditure (Walker, 1987). For example, in Walker's (1987) detailed account of US media networks reporting on Central American countries at the time, repressive behaviours by the leftist Sandinistas in Nicaragua were disproportionately covered while similar or worse human rights atrocities in dictatorship countries approved by the United States government were ignored (e.g., El Salvador, Guatemala). So, there is a possibility that the substantially higher overall missingness in perpetrators' identity in kidnappings in Guatemala and El Salvador, compared to Nicaragua, might have something to do with their heightened capacity in controlling media content as military-dictatorship polities, supported by the United States and their sweeping influence in shaping public narrative and media agenda. Government's disinformation efforts could suppress information unfavourable to those in power and promote contents delegitimising their opponents. It is possible that a larger proportion of kidnappings by unknown perpetrators in Guatemala and El Salvador were committed by the right-wing pro-government forces, and the media were discouraged or prevented from identifying their perpetrators.



Another aspect of the domestic political landscape that may be relevant is the extent to which the political conflict is characterised by multiple fragmented groups in contrast to a few major dominating actors. The more fractionalised the political landscape is, the more difficult it may be to attribute kidnappings to any one particular group. In El Salvador, more than half of the kidnappings with known perpetrators were attributed to the Farabundo Martí National Liberation Front (FMLN), an umbrella organisation for several notable leftist guerrilla groups and the major participant in the Salvadoran Civil War from 1979 to 1992 fighting against the military dictatorship government backed by the United States (Chávez, 2009). Similarly, in Nicaragua, most violent confrontations centred around the fight between the left-wing Sandinista government and the US-backed Contras groups (e.g., Nicaraguan Democratic Force, Nicaraguan Resistance, etc.) GTD kidnappings in Nicaragua during the time are also mostly attributed to the Sandinista National Liberation Front (FSLN), and the Contras groups. Although the centre of political conflicts in Guatemala at the time was also between the right-wing pro-government militants and the revolutionary guerrilla forces, the GTD data suggests no dominating actors were formed for either sides. Looking at the GTD kidnappings in Guatemala at the time (1978-1997,  $N = 202$ ), one finds that 19 different known perpetrators were named,<sup>9</sup> each with a low number of attacks registered to them ( $M = 2.26$ ,  $SD = 1.88$ ,  $Min = 1$ ,  $Max = 7$ ). When a region has numerous, actively operating groups and none has assumed

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<sup>9</sup> These named perpetrators include notable leftist guerrillas such as the Guatemalan Labour Party (PGT), Guatemalan National Revolutionary Unity (URNG), Guerrilla Army of the Poor (EGP), Rebel Armed Forces of Guatemala (FAR), Revolutionary Organisation of People in Arms (ORPA), as well as anti-communist groups and right-wing death squads such as the Secret Anti-Communist Army (ESA), Mano Blanca, and Anti-Communist Commando of the South.

dominance, it would likely be more difficult to establish the identity of the perpetrators for an unclaimed attack.

Turning to the second question: what could have caused the peculiar drop in the level of missingness in perpetrator information across all sub-regions in Central America and the Caribbean between approximately 1984 and 1988? Again, without doing a thorough all-round study of Central American history at the time, my discussions here are only intended to offer some plausible speculations.

One possibility that explains the temporary decline in the mid-1980s in missingness of perpetrator information is the heightened media attention to the conflicts in Central America triggered by domestic politics in the United States during these years, which may have led to more extensive and detailed coverage of kidnapping cases.

Central America has always been a region of geopolitical importance to the United States. However, a review of key historical events suggests that it was during the Reagan Administration (1981-1989), a series of events in the mid-1980s in particular, that Central America was really put under the media spotlight. Central American countries, including Guatemala, El Salvador, and Nicaragua already received some US military aid and financial support on and off under the Carter Administration in the 1970s (Pach, 2006; Scott, 1996). However, it was the Reagan Administration that first made it an affirmative foreign policy to fund and militarily support "pro-democratic" movements in third world countries, as part of the so-called "Reagan Doctrine," and substantially expanded the scope and amount of the

military aid in Central America (Pach, 2006; Scott, 1996).<sup>10</sup> However, the application of the Reagan Doctrine in Central America was met with fierce criticism in the congress, especially after the CIA participation in the mining of Managua harbour in Nicaragua's capital in 1984. The latter led to the International Court of Justice ruling against the United States in the famous case *Nicaragua vs United States* (1984), declaring the US action illegal and that reparation should be paid to Nicaragua. Gross human rights violations by the right-wing governments' death squads and anti-revolutionary rebels – backed by the US government – were also exposed, generating heightened public attention and debates (Arnson, 1999; Simon, 1984; United Nations General Assembly, 1983a; United Nations General Assembly, 1983b). All these made Central America one of the key agenda in the media and domestic debates in the United States at the time.

Experts studying mass communication of the time have noted a sudden increase of interest of the US media reporting on Central American in the early 1980s (McAnany, 1983). Amongst others, McAnany found reporting on Central America hugely inadequate prior to 1980s, taking up only 0.01% of the total news reports in the 1970s, during which mass movements, protests and severe social inequality were already prevalent across Central American countries. McAnany (1983, p.201) noted the striking pattern that for a number of years in the 1970s, there was no media coverage on the region at all until it suddenly became a "major focus" in the 1980s. McAnany argued that the sudden change in the 1980s was primarily to inform the public of – and to promote domestic support for – Reagan's foreign policy of pouring large amounts of financial and military aid into Central America. Others

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<sup>10</sup> Although the “Reagan Doctrine” was only named in 1985, it was effectively carried out from the start of Reagan's presidency in 1981.

have also echoed these findings and reported the problem of unbalanced media coverage, the influence on the amount and quality of media coverage of developing countries by their political significance and proximity to the interests of those hosting influential international media (Agrelo, n.d.; Cassara, 1998; Harvey, 2012; Hawkins, 2008; Moeller, 2006).

Coming back to the question of the temporary decline in kidnappings by unknown perpetrators in the mid-1980s observed in all sub-regions in Central America and the Caribbean, it is likely that the heightened media attention drawn to the region in the 1980s played a role. More media and investigative resources from the international community were directed to the region as it became pivotal to the geopolitical agenda of the US foreign policy and domestic political debates. More media attention and investigative resources would likely have increased details available on events happening in the region, and as a result, lowered the general level of missingness in perpetrator identity information.

### ***3.3.4 City-level Comparison***

In a final step of the descriptive analyses, I focused on the top 20 cities with the highest overall kidnapping counts in the GTD and examined their percentages of kidnappings by unknown perpetrators. Analysis at city-level allows us to examine and compare the different social political situations within the same country or geopolitical region (e.g., experience of major battles, territorial control by insurgent groups, etc.). In this way, it offers a deeper and more nuanced perspective elucidating the causes of missing perpetrator information.

Table 3.5 summarises the key statistics for the top 20 cities with the highest overall GTD kidnapping counts. To make easy comparison of cities within the same country or region's socio-political context, I grouped the top 20 cities into "country-region" blocks. For example, Mosul, Baghdad and Kirkuk were grouped into the same "Iraq- Middle East and

North Africa region (MENA)” block. Cities within the same block were arranged in a descending order based on the number of kidnappings occurred; the order of the blocks was determined based on the highest kidnapping counts of cities within the blocks in a descending order.

**Table 3.5**

*Top 20 Cities in GTD Kidnappings 1970-2018: Percentage of Perpetrator (Perp.) Unknown*

City	Country	Region	Kidnapping (N)	Unknown Perp. (n)	Perc. Unknown
Mosul	Iraq	MENA	161	25	15.5
Baghdad	Iraq	MENA	133	105	79.0
Kirkuk	Iraq	MENA	40	31	77.5
Tripoli	Libya	MENA	137	93	67.9
Sirte	Libya	MENA	60	5	8.3
Benghazi	Libya	MENA	42	27	64.3
Sanaa	Yemen	MENA	107	16	15.0
Beirut	Lebanon	MENA	104	48	46.2
Guatemala City	Guatemala	Central America	120	89	74.2
San Salvador	El Salvador	Central America	70	36	51.4
Bogota	Colombia	South America	103	36	35.0
Medellin	Colombia	South America	34	14	41.2
Buenos Aires	Argentina	South America	49	21	42.9
Karachi	Pakistan	South Asia	72	63	87.5
Peshawar	Pakistan	South Asia	37	26	70.3
Quetta	Pakistan	South Asia	35	28	80.0
Bara	Pakistan	South Asia	35	13	37.1
Srinagar	India	South Asia	35	8	22.9
Mogadishu	Somalia	Sub-Saharan Africa	56	29	51.8
Port Harcourt	Nigeria	Sub-Saharan Africa	35	29	82.9

Notably, the level of kidnappings by unknown perpetrators of these top 20 cities shown in Table 3.5 tends to be much higher than the population average of 30.1% ( $M = 52.5\%$ ,  $SD = 24.2\%$ ,  $Min = 8.3\%$ ,  $Max = 87.5\%$ ). Only four cities fall below the 30.1% average (i.e., Mosul

in Iraq, Sirte in Libya, Sanaa in Yemen and Srinagar in India). Nine out of the top 20 cities have more than 60% of cases committed by unknown perpetrators (e.g., 79.0% for Baghdad in Iraq, 77.5% for Kirkuk in Iraq, 74.2% for Guatemala City in Guatemala, 87.5% for Karachi in Pakistan, etc.). One explanation for this higher-than-average missingness observed among the top 20 cities is that cities where kidnappings frequently happen are often those suffering the most from internal armed conflicts. Having multiple violent actors operating in the same region and the inherent challenges to produce good-quality reporting in conflict zones would likely lead to a higher level of attacks with unidentified perpetrators.

The Middle East and North Africa region stands out as the most represented on the list for having eight cities involving four countries. Despite the region's higher level of kidnappings by unidentified perpetrators in general, it is particularly interesting to note the large variations observed among cities within the same country. For example, Mosul has only 15.5% of unknown perpetrator rate in its GTD kidnappings compared with 79.0% for Baghdad and 77.5% for Kirkuk (the other two top-20 Iraqi cities). Notably, Mosul was effectively controlled by ISIS from June 2014 to July 2017 and ISIS was named as the perpetrator for 80.8% of all kidnappings there. Likewise, in Libya, the capital city Tripoli and Benghazi had much higher percentage kidnappings by unknown perpetrators (67.9% and 64.3%) compared with Sirte (8.3%), which was the base city of the Tripoli Province of the Islamic State (the Libyan branch of ISIS) between 2015 and 2016. During these two years, ISIS was reported to have taken control and conducted state-like governance activities such as tax collection and distributing food in the area (Pack et al., 2017; Zellin, 2015). Similar to the patterns observed with Mosul, the base city of ISIS in Iraq, 55 of the total number of 60 GTD recorded kidnappings in Sirte had happened during 2015 and 2016, 54 of which attributed to Tripoli Province of the Islamic State as the perpetrating group. A similar case also happened with

Sanaa in Yemen, which was taken over by the Ansar Allah (also known as the Houthi movement) since 2014 and had a particularly low 15.0% of unknown perpetrator rate. These patterns also echo my earlier observations with the Central American and Caribbean countries. Countries with dominant perpetrating groups, namely, El Salvador and Nicaragua, have a visibly lower level of missing perpetrator data, compared with Guatemala, where no apparent dominating group was present, resulting in a long list of perpetrators, each with a few attacks attributed to them.

Therefore, one possible way to interpret the data is that having an infamous operating violent political group occupying and trying to govern a city would lead to fewer “unknown” perpetrator attacks in the GTD. When a dominant group with an established reputation and operating territory exists, it would likely be easier for the media or the public to identify their members, motives, and link them to an attack. On the other hand, it could also be a result of erroneous attribution, where the media and government authorities might feel tempted to attribute an attack to the most "notorious" group in the area. In either case, the chance of having "unknown" perpetrator in an area with notable dominating groups would be lower. As a result, studies that rely on kidnapping data with known perpetrators may over-represent those well-established groups or geographic regions with territories controlled by notable violent political groups.

### **3.3.5 Summary**

Analysis of the GTD kidnapping data shows that cases with “unknown” perpetrators follow some clear temporal and geographic patterns. The level of missingness in perpetrator information generally went up from the 1970s to the 1990s and then steadily declined until 2010s across most regions. Among the six regions that account for more than 94.3% of all

GTD kidnappings, there were considerable differences in their overall level of missing perpetrator information. For example, Central America and the Caribbean had an average of 57.5%, three times the level of Southeast Asia, which had a 19.1% overall missing perpetrator rate.

A key question is: what are the possible underlying causal mechanisms that might have resulted in certain periods of time or locations having a higher or lower unknown perpetrator level? In this regard, the descriptive analysis conducted in this section is indeed limited in its ability to procure a comprehensive or definite answer. However, a few important processes were identified as potentially relevant and plausible explanations of the observed data patterns.

Firstly, the advancement in information technology and the rise of the Internet had transformed the journalism industry, a process starting in the early 2000s. It also enhanced the GTD data collection capacity. GTD data shows a decreasing trend in the percentages of kidnappings by “unknown” perpetrator since the 2000s across almost all regions. This possibly reflects the exceptional growth in technological capability to find, transmit and store data in an increasingly connected world.

My analyses also highlighted the importance of specific geopolitical contexts. The presence of intrastate armed conflicts seems to coincide with higher levels of missing perpetrator information. For example, the increases of intrastate armed conflicts globally since the Second World War till the 1990s (*see* Figure 3.2) mirrored a similar climb up in the aggregated levels of missing perpetrator information from 1970s to 1990s (*see* Table 3.1). The novel instance of increase in the percentage of kidnappings by unknown perpetrators in the Middle East and North Africa from the 1990s to the 2000s may also be connected to the



outbreak of the Iraq war and the ensuing armed conflicts in the region (while all other regions witnessed a decrease in the percentage of cases with unknown perpetrators, see Figure 3.3).

The presence of dominating or monopolising groups in a territory, on the other hand, might reduce missingness in perpetrator information. This could be either due to the higher amount of public knowledge and traces about the more well-established dominating groups to establish links to an attack, or that media and authorities tend to attribute cases to the “notorious” groups in the region, even if erroneously. Examples in my analyses include the comparison of the top 20 cities within the same countries and the comparative analysis of Guatemala (no dominating perpetrating groups) versus El Salvador or Nicaragua in the Central America and the Caribbean region.

A case study focusing on the Central America and the Caribbean region also found preliminary evidence corroborating LaFree’s (2010) observation that media censorship and disinformation campaigns by authorities would influence data quality and missingness in perpetrator information. For example, Guatemala and El Salvador were ruled by consecutive terms of military dictatorships backed by the United States between the late-1970s and early 1980s, which witnessed some of the world’s most pervasive political violence on civilians committed by government-affiliated death squads or violent right-wing groups. These periods coincide with the highest missing perpetrator percentages for Guatemala and El Salvador in the whole GTD (see Figure 3.5, compare with Table 3.3), much higher than the corresponding percentage of their neighbour, Nicaragua.

Lastly, the influence of heightened media attention and resources driven by the political agenda of “core countries” are also reflected in the case study of the Central America and the Caribbean region. All sub-regions in Central America and the Caribbean witnessed a peculiar

temporary decline in their level of missing perpetrator information in the 1980s (see Figure 3.5), the very period of time when the region was put under media spotlight by the US domestic debate over controversies under the Reagan administration's foreign policy.

These mechanisms identified above are no way conclusive of all the possible pathways between time/space and perpetrator identification. However, they provide some useful insights into how time and geographic regions might have influenced the level of missingness in perpetrator information for kidnapping incidents. Any statistical analyses investigating the missingness of perpetrator information should take into account the important yet complex ways that time and geographic regions can influence the model. The next section will do exactly that.

### **3.4 Missingness of Perpetrator Information: A Multivariate Analysis of Context and Event Characteristics**

Having a substantial number of kidnapping cases without identified perpetrator ( $n = 3,566$  in  $N = 12,138$ ) posed a few interesting questions and challenges to the current study. What are the kidnapping cases with missing perpetrator information, and why is it so? In other words, what does the missingness of perpetrator information represent? These questions are not only useful for understanding the global kidnapping scene itself, but also essential for researchers to reflect on how analysis depending on the knowledge of the perpetrators might result in biased findings. Previous sections have reviewed the relevant existing literature and presented results of descriptive analyses using GTD kidnappings by "unknown" perpetrators. In this section, I will go one step further by examining multivariate models to predict missingness of perpetrator information in the GTD kidnapping data from 1970 to 2018.

### **3.4.1 Method**

Logistic regression was performed to examine how the missingness of perpetrator information in the GTD kidnapping data might be linked to multiple characteristics of the kidnapping incidents. Logistic regression is a powerful statistical technique most suited to a model binary outcome. It works similarly to linear regression, except that instead of modelling a directly measured outcome, it models the logarithm of the odds of a “0” or “1” occurrence in the binary outcome variable (Allison, 2012; Hosmer et al., 2013; Peng et al., 2002).

A multilevel approach was taken in my logistic regression analyses. As discussed in earlier sections, missingness in perpetrator information is influenced by contextual factors such as geo-political environments, changes in information technology and media industry. Missingness in the perpetrator information among the kidnapping-events recorded in the GTD is unlikely to be independent among those occurred within the same country and/or in the same country-year units. As such, multilevel modelling is desirable for two reasons. Firstly, it avoids making the wrong statistical assumption that observations within the same country or country-year clusters are independent from each other, and therefore, avoids unreliable estimates from a conventional logistic regression. Secondly, multilevel modelling can provide us informative estimates of the macro-level contextual effects accounted for by the higher-level clustering (Austin & Merlo, 2017). For this study, I designated a three-level model, where kidnapping incidents (my level-one observations) were assumed to be clustered within country-year units (level-two), which were further nested by country (level-three).

***Dependant variable.*** The binary outcome variable for logistic regression in the current study is based on whether the GTD recorded a kidnapping incident’s perpetrator as “unknown” or identified (1 = perpetrator unknown, 0 = perpetrator identified).

***Independent variables.*** As highlighted in the previous sections in the literature review, descriptive analyses and case studies, both macro-level characteristics (such as changing geopolitical contexts and technological advancements) as well as event characteristics (such as sensation, lethality and the novelty of the incident) may influence missingness in perpetrators' identity in the GTD kidnapping data. This study models macro-level contextual effects by employing multilevel analyses assuming data-clustering at both country-level and country-year level. Meanwhile, a number of event-characteristics that may influence the missingness of perpetrator identity are included as independent variables as described below:

***Ransom requests.*** The GTD includes a binary variable that measures whether a ransom request was made in the incident (1 = yes, 0 = no). Kidnapping with reported ransom requests means that the perpetrator would likely have to make themselves known to the victims, the media or the relevant government authorities to negotiate and facilitate the ransom acquiring process. It is therefore hypothesised that there is a higher chance of having identifiable information related to the perpetrator when the kidnapping is accompanied by ransom requests.

***Foreign hostages (international element of the kidnapping).*** The GTD has data to recode for a binary variable that measures whether a kidnapping incident involves hostages who are citizens of foreign countries to the location of the attack (1 = presence of foreign hostages, 0 = no known presence of foreign hostages). Kidnappings of hostage(s) whose nationality is different from the location of the attack would bring an international element into the case. It is hypothesised that having a foreign hostage and bringing an international element would attract heightened media attention and therefore increase the chance of having the perpetrator identified and becoming public knowledge.

*Private civilian hostages.* Professional roles of the hostages are available in the GTD for kidnappings, which I used to recode into a binary variable of whether the hostage is a private citizen, as opposed to being a “government official,” “police,” “military,” “media and journalist,” “NGO,” among others (1 = hostage is private civilian, 0 = hostage is not known to be a private civilian). It is hypothesised that kidnapping of private citizens, who do not hold any special occupational status, would presumably get less attention from the media and more likely to result in missingness of perpetrator information in the GTD.

*Fatality.* The GTD contains information on the number of deaths incurred during the relevant attack (including for kidnappings), which is the aggregated number of deaths for both the perpetrator and victims without differentiating the two. Higher fatalities would likely attract more media attention locally and internationally. It is hypothesised that higher fatality numbers incurred during the kidnapping process would increase the chance of the perpetrator’s identification being ascertained. As the fatality numbers are highly skewed, I generated their log-transformed values to be included in the model ( $M = 0.55$ ,  $SD = 0.85$ ,  $Min = 0$ ,  $Max = 7.36$ ).

*Hot weapon.* The GTD provides a list of nine types of weapon used during kidnapping incidents: firearms, explosives, chemical, incendiary, melee, sabotage equipment, fake weapons, “others,” and the “unknown.” I further categorised these types into a binary variable of whether hot weapons were unknown to be used by treating the following GTD-based weapon categories as “hot weapons”: firearms, explosives, incendiary and chemical weapons (1 = hot weapons used; 0 = no known hot weapons used). Since lethality and novelty of weapons used during the attack would likely influence the amount of media coverage and the easiness of identifying the perpetrator, it is hypothesised that kidnappings where hot weapons were used are more likely to have the perpetrators identified.

Table 3.6 summarises the basic descriptive statistics of the above-mentioned independent variables. Frequency of positive “event occurrence” and rates was provided for the four binary indicator variables: 1) whether or not ransom was requested; 2) whether the nationality of the hostage is foreign to the location of the attack; 3) whether hostages are private civilians; and 4) whether hot weapons were used in the attacks.

**Table 3.6**

*Factors Explaining Missingness of Perpetrator Information: Summary of Variable Basics and Chi-square Results*

	Variable types	Observations <i>N</i>	Event occurrence		$X^2$ (df)
			<i>n</i>	%	
Ransom requested	Binary	12,138	1,247	10.3	0.01 (1)
Foreign hostage(s)	Binary	12,138	1,983	16.3	16.06* (1)
Private civilian hostage(s)	Binary	12,138	4,677	38.5	110.31* (1)
Hot weapon(s) used	Binary	12,138	6,149	50.7	45.48* (1)
Fatality	Numerical <sup>a</sup>	9,315	n/a	n/a	n/a

<sup>a</sup>. Fatality is measured as the log-transformed values of the number of deaths incurred in a GTD kidnapping incident ( $M = .55$ ,  $SD = .85$ ,  $Min = 0$ ,  $Max = 7.36$ ). \*  $p < .001$

As Table 3.6 shows, the occurrence of ransom requests and kidnappings of foreign hostages are relatively less common, 10.3% and 16.3% respectively in the overall population of 12,138 kidnappings in the GTD. Kidnappings of private civilian hostages and use of hot weapons are much more common, representing 38.5% and 50.7% of all GTD kidnappings. Fatality is the only numerical variable and is calculated as the log-transformed values of recorded fatality counts in the GTD for each kidnapping, the missing value of which resulted in a reduced sample size of 9,315.

Chi-square tests of independence were also performed for each of the categorical variable (binary included) to examine their relationship with the missingness of perpetrator information, shown in the right column in Table 3.6. Notably, all but “ransom request” were found significant relating to missingness at 0.1% level ( $p < .001$ ). This supports my selection of independent variables building the multivariate logistic regression model.

I conducted the multilevel logistic regression analyses in three steps. First, I ran an empty model (Model 1) on the full sample of all GTD kidnapping incidents between 1970 and 2018 ( $N=12,138$ ), where no incident-level predictors were included. Running an empty model is a common practice in multilevel analyses as it yields estimates on how much of the variance in the outcome variable can be explained by the random effects of country-level and country-year level clustering alone (*see* Austin & Merlo, 2017; Sommet & Morselli, 2017). In step-two (Model 2), I introduced the incident-level independent variables (*see* those summarised in Table 3.6). The estimates from Model 2 inform us whether and how changes in the relevant incident-level characteristics would influence the probability of missingness in perpetrator information after accounting for the clustering effects at country-level and country-year level. In the final step (Model 3), I used the same set of independent variables as Model 2 but ran the analyses on a reduced sample focusing specifically on GTD kidnappings between 1998 and 2012 ( $n = 2,946$ ). This particular time frame reflects the duration of data used to match and merge with BAAD2 to create GTD-BAAD2, utilised for the empirical analysis of group-level differences in kidnappings in Chapters 4 and 5. Limiting the regression analysis in Model 3 to this particular time period would inform us specifically which factors are associated with the missingness of perpetrator information in the merged dataset GTD-BAAD2 and would potentially bias the empirical results based on the data. Robust standard errors are used to adjust for the clustering of unexplained variance at country level.

Additionally, an explorative attempt was also made to examine the specific contextual effects of press freedom on the missingness of perpetrator information. This requires adding additional measures on the level of press freedom from sources other than the GTD and BAAD2 and attributing them to the GTD-recorded kidnapping incidents. For this study, I used the World Press Freedom Index scores from the Reporters without Borders (RSF), which started releasing yearly reports on country-level press freedom scores based on surveys and expert opinions since 2002 (Becker et al., 2007; RSF, n.d.). In general, a higher RSF score indicates worse situation for press freedom and a lower score indicates a better environment for the press to report freely in the country. However, it was only since 2013 that the RSF *Freedom of Press Score* started using a consistent “0 to 100” scale to score different countries to make them comparable from year to year (RSF Method, n.d.). As a result, the analyses had to be limited to years between 2013 to 2018 only, covering a total of 6,218 kidnappings recorded in the GTD. The bivariate correlation was returned non-significant and multilevel logistic regression results are presented in Table 3.8.

### **3.4.2 Results**

Table 3.7 summarises the results of the three-step multilevel logistic regression analyses where only incident-level predictors were included. Results from Model 1 – the empty model where no independent variables were included – show that the intraclass correlation coefficient (ICC) is high at both the country-level and the country-year level ( $ICC_{country} = .275$ ;  $ICC_{country-year} = .489$ ). These results mean that 27.5% of the variance of perpetrator-missingness in the sampled kidnapping incidents (i.e., GTD-recorded kidnappings between 1970 to 2018) can be explained by country-level clustering, and 48.9% of the variance can be explained by country-year clustering. Model 2 and Model 3 show similar results on the ICC for both the clustering



**Table 3.7**

*Multilevel Logistic Regression Analyses on the Missingness of Perpetrator Information in the GTD Kidnapping Data*

	Model 1		Model 2			Model 3		
	<i>B</i>	<i>Robust S.E.</i>	<i>B</i>	<i>Robust S.E.</i>	<i>OR</i>	<i>B</i>	<i>Robust S.E.</i>	<i>OR</i>
Intercepts:								
Country	1.49	0.27	1.60	0.30	-	1.80	0.52	-
Country-year	1.66	0.36	1.77	0.37	-	1.20	0.45	-
Incident-level characteristics								
Ransom requested			-0.29***	0.08	0.75	-0.34*	0.15	0.71
Hostage(s) being foreign			-0.23†	0.12	0.80	-0.46†	0.27	0.63
Hostages being private civilians			-0.15	0.10	0.86	-0.14	0.13	0.87
Hot weapon(s) used			0.30**	0.09	1.35	0.69***	0.10	2.00
Fatality			-0.72***	0.08	0.49	-0.44***	0.07	0.65
Model information								
Corresponding GTD years	1970-2018		1970-2018			1998-2012		
Number of observations	12,138		9,315			2,702		
Number of clusters	N_country = 140		N_country = 136			N_country = 81		
	N_country-year = 1,261		N_country-year = 1,202			N_country-year = 342		
Intraclass correlation coefficient (ICC)	ICC_country = .232		ICC_country = .240			ICC_country = .286		
	ICC_country-year = .489		ICC_country-year = .505			ICC_country-year = .477		

*Notes.* Models 1 and 2 are tested with all GTD recorded kidnappings between 1970 and 2018 ( $N=12,138$ ). Model 3 was tested with only cases between 1998 and 2012 ( $n=2,702$ ). The reduced number of observations for Model 2 was due to missing values in fatality. †  $p < .10$ , \*  $p < .05$ , \*\*  $p \leq .01$ , \*\*\*  $p \leq .001$ .

at the country level and the country-year level.

The effects of incident-level predictors on the missingness of perpetrator information among GTD kidnappings were examined both in Model 2 and Model 3. The results are largely consistent despite that Model 2 sampled the full period of GTD data between 1970 and 2018 while Model 3 focused specifically on the years between 1998 and 2012. Four of the five incident-level predictors tested in Model 2 and Model 3 were found significantly (or almost significantly) influencing the odds of missing perpetrator information.

Consistent with my hypothesis, the presence of ransom requests makes kidnappings less likely to miss perpetrators' identity information. Specifically, the odds of having missing perpetrator identity information for kidnappings with ransom requests are 0.75 times the odds of those kidnappings without any ransom requests (Model 2:  $OR = 0.75$ ,  $p = .001$ ; Model 3:  $OR = 0.71$ ,  $p = .024$ ). Also consistent with my hypothesis, kidnappings with a higher level of fatality incurred during the abduction process are found less likely to have missing perpetrator identity (Model 2:  $OR = 0.49$ ,  $p < .001$ ; Model 3:  $OR = 0.63$ ,  $p < .001$ ). Moreover, both Model 2 and Model 3 found that having foreign hostages abducted during a kidnapping has a close to significant association with a lower odds of missing perpetrator identity information as hypothesised (Model 2:  $OR = 0.80$ ,  $p = .064$ ; Model 3:  $OR = 0.65$ ,  $p = .085$ ).

However, contrary to my expectation, both Model 2 and Model 3 failed to find any significant effects of hostages being private civilian hostages – compared with those involving hostages with special professional status such as government officials, journalists, police, aid workers and so on – on the missingness of perpetrator information (Model 2:  $p = .116$ ; Model 3:  $p = .267$ ). Also contrary to my hypothesis expecting kidnappings involving hot weapons to have a lower chance missing perpetrator information, both Model 2 and Model 3 found

kidnappings committed with hot weapons had a higher chance having “unknown” perpetrators in the GTD (Model 2:  $OR = 1.35, p = .002$ ; Model 3:  $OR = 2.00, p < .000$ ).

Table 3.8 summarises the results from multilevel logistic regressions based on GTD kidnappings between 2013 and 2018, where additional measures on the level of press freedom estimated by the Reporters without Borders for each country-year units were available and comparable across different years. Model 1 is the empty model without any predictors. The random effects of country-level and country-year clustering were estimated to account for 36.6% and 47.5% of the total variance in the missingness of perpetrator identity information (Model 1:  $ICC\_country = .366, ICC\_country-year = .475$ ).

Model 2 includes incident-level predictors only – the same set of independent variables as the those included in models presented in Table 3.7. Only the presence of ransom requests and the level of fatality were tested significant as factors associated with missingness in perpetrator identity information for GTD kidnappings between 2013 to 2018, both in a negative direction (Model 2:  $OR\_ransom = 0.55, p < .001$ ;  $OR\_fatality = 0.35, p < .001$ ).

Model 3 builds upon Model 2 and further includes the RSF press freedom scores at the country-year level in addition to the incident-level predictors. The model found no effect of country-year level freedom of the press on the missingness of information on perpetrator identity ( $p = .823$ ). Estimation results for the incident-level predictors are almost identical to those in Model 2 – only the presence of ransom requests and the level of fatality of a kidnapping event were found significant as factors (negatively) associated with missingness in perpetrator identity information (Model 3:  $OR\_ransom = 0.53, p < .001$ ;  $OR\_fatality = 0.34, p < .001$ ).

**Table 3.8**

*Multilevel Logistic Regression on the Press Freedom and Missingness of Perpetrator Information in the GTD Kidnapping Data (2013-2018)*

	Model 1		Model 2			Model 3		
	<i>B</i>	<i>Robust S.E.</i>	<i>B</i>	<i>Robust S.E.</i>	<i>OR</i>	<i>B</i>	<i>Robust S.E.</i>	<i>OR</i>
Intercepts:								
Country	2.30	0.82	1.60	0.30	-	1.80	0.52	-
Country-year	0.68	0.18	1.77	0.37	-	1.20	0.45	-
Incident-level characteristics								
Ransom requested			-0.60***	0.15	0.55	-0.63***	0.15	0.53
Hostage(s) being foreign			-0.14	0.14	0.87	-0.09	0.15	0.91
Hostages being private civilians			-0.31	0.18	0.73	-0.29	0.20	0.75
Hot weapon(s) used			0.24	0.18	1.27	0.24	0.19	1.27
Fatality			-1.06***	0.10	0.35	-1.06***	0.10	0.34
Country-level characteristics								
Press freedom (RSF score)				-		-0.00	0.02	1.00
Model Info								
Number of observations	6,218		4,136			4,031		
Number of clusters	N_country = 75		N_country = 69			N_country = 68		
	N_country-year = 264		N_country-year = 247			N_country-year = 242		
Intraclass correlation coefficient (ICC)	ICC_country = .366		ICC_country = .351			ICC_country = .353		
	ICC_country-year = .475		ICC_country-year = .484			ICC_country-year = .489		

*Notes.* The reduced number of observations in Model 2 (compared to Model 1) was due to missing values in fatality. The further reduced number of observations in Model 3 (compared to Model 2) was due to missing values in the RSF press freedom scores. \*  $p < .05$ , \*\*  $p \leq .01$ , \*\*\*  $p \leq .001$ .

### **3.4.3 Discussion**

Results from the logistic regression models are largely consistent with my hypotheses. Firstly, the data shows that missingness in perpetrator information is substantially influenced by the specific geo-political contextual factors depending on the countries and years where/when the kidnapping events occurred. The ICC estimation of different models tested in my analyses consistently showed that over 40% of the variance in the missingness of perpetrator identity can be explained by country-year level clustering, and above 20% or 30% explained by country-level clustering.

The models also found support that the following incident-level characteristics may influence missingness of perpetrator information as I hypothesised: the presence of ransom requests, the use of hot weapons and the fatality level of the attacks were all found significant as predictors of information missingness in perpetrators' identity.

Some results also contradict my hypotheses. First, the data failed to find any significant effects of hostages being private citizens on the missingness in the perpetrator identity information. Whether the hostages are of foreign/domestic nationality to the location of the attacks were also not significantly related to the missingness in the perpetrator identity information. Secondly, the direction of relationship between the use of hot weapons in an attack and missingness in perpetrators' identity information went opposite to what was expected. I hypothesised that the use of hot weapons – as opposed to cold weapons such as by hand or knives – may make a kidnapping more high-profile and newsworthy, and therefore, reducing the chance of missing perpetrator information. However, results from the logistic regression models show the use of hot weapons is associated with a higher chance of missingness. One possible explanation for this is the confounding effect of other factors not

included in the model. More specifically, the positive effect of using hot weapons on data missingness observed might be a result of confounding with factors that makes perpetrator identity difficult to obtain. For example, hot weapons are likely more commonly used in areas suffering on-going armed conflicts, where monopoly and exclusive control has not been established. This would make ascertaining the perpetrator's identity difficult as there would be multiple competing groups operating in the same or adjunct territories, increasing the risk and challenge of on-the-ground media reporting. A good example is Libya. ISIS had established control and implemented state-like governance in Sirte in 2015, while in Tripoli and Benghazi, multiple groups of forces were present and fighting for control (see Fitzgerald & Toaldo, 2016; Zelin 2015, p.22 "*Map showing control of Libya and location of ISIS attacks as of May 2015*"). As previously presented in Table 3.5, Sirte has a much lower percentage of kidnappings by unknown perpetrators compared with Tripoli and Benghazi. However, the GTD data shows the ratio of kidnappings using hot weapons in Tripoli and Benghazi are generally much higher than in Sirte (65.69% and 57.14% compared with 23.33% for Sirte, see Table 3.9 on the next page).<sup>11</sup> These observations are consistent with the explanation that the use of hot weapons is positively linked to armed conflicts in territories where monopoly of control has not been established, which has a positive effect on missingness of perpetrator information. In other words, the positive effect of hot weapons on missingness of perpetrator information found by the logistic regression models is just a proxy for the effect of armed conflicts in regions where the monopoly of control has not yet been secured. Unfortunately, this current study using logistic regression models is limited to what has been already measured

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<sup>11</sup> If we look at the year 2015 alone, Tripoli had 16 in 29 total kidnappings using hot weapons, which is more than half, while Sirte had only 5 out of the 23 kidnappings involving hot weapons. Benghazi has to be excluded in the percentage comparison because only three kidnappings happened in 2015.

in the GTD and it was not possible to include measurements on the status of territory control in the region where each of the kidnappings happened. The latter might be an important factor influencing the missingness of perpetrator information and the reason why the effects found in the models are of an opposite direction to what I hypothesised.

**Table 3.9**

*Usage of Hot Weapons and Percentage of Kidnappings by Unknown Perpetrators:  
Comparing Three Cities in Libya using GTD Kidnapping Data (1970-2018)*

City	Kidnappings (N)	Perp. Unknown (%)	Hot Weapon (%)
Sirte	60	8.33	23.33
Tripoli	137	67.88	65.69
Benghazi	42	64.29	57.14

Also contrary to my expectation, this study did not find support for the notion that the level of press freedom would influence missingness in perpetrators' identity information. As Table 3.8 shows, although the results show that 48.9% of the variance in the missingness of perpetrators' identity information can be explained by country-year level clustering, the models did not detect any effects of country-year level scores of press freedom. This suggests that contextual factors at the country-year level other than the freedom of the press may have substantially influenced data-missingness in perpetrators' identity. For example, country-years that have intensive armed-conflicts – and/or country-years peripheral to the geo-political interests of those running the major news outlets – may have less journalists travelling there or have less reporting resources allocated to covering kidnapping events there. Or, country-years where there are violent political groups clearly dominating/monopolising the perpetration of violence in the area may be much easier for the perpetrators to be identified.

As to how one could explain why the models did not find any significant relationship between press freedom and missingness in perpetrators' identity, one possibility is that press freedom may influence the availability of information in different ways. On the one hand, less press freedom could mean less transparency and more difficulties in obtaining information on the identity of perpetrators. On the other hand, less freedom of the press could also mean more interference from the relevant authorities to falsely report the names of perpetrators or not reporting an event at all when it is unfavorable to their interests. As a result, one may as well see country-years with low level of press freedom having high percentages of perpetrators identified in their reported attacks/kidnappings.

To summarise, the multilevel logistic regression analyses found several ways that perpetrators' identity information may not be missing at ransom. Analyses based on the full sample of available GTD data between 1970 to 2018 and the GTD-BAAD2 specific period between 1998 and 2012 showed almost identical results.

Firstly, this study found that missingness in perpetrators' identity information is highly clustered by country-year or by country, highlighting the importance of country-level and year-level contextual factors that would influence the availability of information on perpetrators identity. In this study, I specifically examined the freedom of press as a country-year level contextual factor that may influence data-missingness. However, the data did not show any significant association. It remains to be examined in future studies as to what are the specific country-level or country-year level factors that influence the availability of information on perpetrators' identity.

Secondly, this study also identified a few incident-level characteristics that predict the missingness of perpetrators' identity information. Specifically, the presence of ransom



requests makes a kidnapping event more likely to have identified perpetrators; kidnappings involving the use of hot weapons are more likely to have missing perpetrators' identity information in the GTD; and kidnappings causing a greater number of deaths are more likely to have identified perpetrators in the GTD. These findings not only shed lights on the general patterns of data-missingness in open-source event datasets like the GTD, but also inform us specifically on the sampling bias that my later analyses based on GTD-BAAD2 may have (in Chapter 4 and 5). Kidnappings more likely to have missing perpetrators will likely be under-represented while kidnappings less likely to have unknown perpetrators will likely be over-represented. This means that my later analyses on the main research question would likely over-represent kidnappings with ransom requests and those with higher-level of fatality, and meanwhile, under-represent kidnappings involving the use of hot weapons.

### **3.5 Implications and Future Work**

This chapter analysed the pattern of missingness in perpetrators' identity among the GTD-recorded kidnapping incidents, contributing to the existing debate on the methodological challenge of using open-source event data to investigate important social-political questions. Findings from the analyses in this chapter reiterate the importance of factors highlighted in existing literature, such as the impact of lethality, influence of regional geopolitical dynamics, government disinformation efforts, and technological changes. Additionally, analyses in this chapter identified several unique issues that are specific to kidnappings, for example, the overall lower level of missing perpetrator information for kidnappings, the important role of territory control and political dominance of notable organisations, the nationality and professional status of hostages. Future research using open-source event data like the GTD

should carefully assess the patterns of missing information, address the potential selection bias and be cautious in interpreting the findings.

## Chapter 4

### Why do some violent political groups engage in kidnappings more than others?

#### 4.1 Introduction

On 22<sup>nd</sup> November 2012, James Foley, a young American journalist reporting on the Syrian Civil War, was meeting in an Internet Café in northern Syria with John Cantlie, a British war photographer. Upon leaving the café, the two were intercepted and forced at gunpoint into an unmarked vehicle (Seibel & Prothero, 2014). It was unclear at the time who had taken them. A year later, on 26<sup>th</sup> November 2013, Foley's parents received a request from ISIS for a ransom of 100 million euros and the release of unspecified imprisoned ISIS fighters in the US. Almost another year later, on 12<sup>th</sup> August 2014, they received a second message announcing the execution of their son, allegedly in revenge for the US-led airstrikes in Iraq (*Global Post*, 2014). Within days, a graphic video of the gruesome beheading of James Foley was uploaded and widely circulated online, shocking the international audience (Cragin & Padilla, 2017).

Unfortunately, Foley was only the first of many hostages captured and brutally executed by ISIS. To name a few, British humanitarian aid workers, David Haines and Alan Henning, were beheaded in September and October 2014; Peter Kassig, an American aid worker, was captured in 2013 and decapitated in November 2014; and the Japanese journalist Kenji Goto was captured in 2014 and beheaded in January 2015. The Libyan branch of ISIS also adopted this practice, kidnapping 21 Coptic Egyptian Christians in Sirte in December 2014 – a video of their beheading was released in February 2015 (Malsin, 2015). This series of video-taped

executions of kidnapped foreign hostages drew enormous international attention for ISIS, to their notorious kidnapping practice, their cruelty towards hostages, and their claims and propaganda statements accompanying the released execution videos.

Around the same time, another Islamic Jihadist group, Boko Haram, also gained international notoriety for their kidnapping of more than 200 Christian schoolgirls in Chibok town, Nigeria. The targeting of Christian schoolgirls reflected their Salafist Islamic ideology and the group's explicit contention that Western education contradicts Islamic teaching and should be prohibited under sharia law (Peters, 2014). In addition to forced conversion to Islam, the kidnapped schoolgirls were subject to sexual abuse, forced labour, forced into marriages with Boko Haram fighters and to bear their children (Oyewole, 2016; Uloho, 2019). On a related note, mass kidnappings of children are also found to be an important way for some violent political groups to recruit soldiers when voluntary participation runs short (Gates, 2017). For example, the Lord's Resistance Army (LRA), a Christian extremist group in Northern Uganda, has been estimated to be comprised of 80% to 90% kidnapped child soldiers (Dunn, 2004; Kaplan, 2009).

More widely, however, financial enrichment from ransom income is often believed to be a major driving force for kidnappings by some violent political groups across different regions of the world. To name a few, the Abu Sayyaf in the southwestern part of the Philippines, the Revolutionary Armed Forces of Colombia (FARC) and the National Liberation Army (ELN) in Colombia, and al-Qaeda in the Islamic Maghreb (AQIM) all developed a reputation for committing kidnapping for ransom as a way to finance their operations (O'Brien, 2012; Otis, 2014; Pauwels, 2016; Turner, 2003).

Despite the potential benefits associated with kidnapping activities – including financial gains, political concessions, publicity, intimidation of the targeted audience (local civilians, aid workers, journalists), recruiting new members – not all violent political groups have embraced this tactic to the same degree. Hamas, for example, has openly condemned the kidnapping of foreign journalists in the Gaza strip, stating that the kidnappings would damage external support for the Palestinian cause and harm the Palestinian people (International Middle East Media Centre, 2005). Also, the original Al-Qa'ida in Pakistan and Afghanistan – which operates as a de-centralised network without assuming control of territories – appears to have engaged in kidnapping attacks very rarely. In the GTD, only three kidnappings are documented between 1970 to 2018. In contrast, their franchises in Yemen and Algeria – Al-Qa'ida in the Arabian Peninsula (AQAP) and AQIM – both controlled territory and had a much more frequent record of kidnappings, according to the BAAD2 and GTD data. AQAP had a total of 77 GTD kidnappings attributed to them – 22 in 2014 alone. AQIM had a consistent record of engaging in kidnapping throughout their years of operation between 2007 and 2018, with a total of 33 GTD kidnappings attributed to them.

The variation between groups in the propensity for kidnapping attacks is strikingly documented in the BAAD2 and GTD data. Notably, 66 of the 140 violent political groups observed in the BAAD2 between 1998 and 2012 did not have any kidnappings recorded in the GTD during these years. This includes, for example, the God's Army in Myanmar (GAM), the Real Irish Republican Army (RIRA), the Popular Front for the Liberation of Palestine (PFLP), and the Palestinian Islamic Jihad (PIJ). GAM was active between 1997 and 2006, and the last three (RIRA, PFLP and PIJ) were active throughout the entire GTD-BAAD2 observation period from 1998 to 2012. While one must bear in mind the limitations due to media selection bias and missing information issues identified in Chapter 3, the stark contrast between the

groups that barely had any reported kidnappings and those that had hundreds of recorded GTD kidnappings, or those with over one-third of their GTD attacks being kidnappings, warrants closer investigation (see Table 4.1 for a list of selected groups and their numbers of kidnappings recorded in the GTD and the respective percentages of overall attacks being kidnappings).

**Table 4.1**

*Kidnappings Counts and Percentage in Overall GTD Attacks: Selected Groups*

Group Name	All Attacks	Kidnappings	
	<i>N</i>	<i>n</i>	%
Taliban	8,727	867	9.9
Islamic State of Iraq and Syria (ISIS)	6,385	673	10.5
Shining Path	4,562	55	1.2
Al-Shabaab	3,774	332	8.8
Irish Republican Army (IRA)	2,669	41	1.5
Boko Haram	2,665	224	8.4
Revolutionary Armed Forces of Colombia (FARC)	2,490	326	13.1
Basque Fatherland and Freedom (ETA)	2,024	77	3.8
National Liberation Army of Colombia (ELN)	1,683	362	21.5
Al-Qaida in the Arabian Peninsula (AQAP)	1,041	77	7.4
Abu Sayyaf Group (ASG)	557	195	35.0
Hamas (Islamic Resistance Movement)	447	18	4.0
Tripoli Province of the Islamic State	359	126	35.1
Lord's Resistance Army (LRA)	332	111	33.4
Al-Qaida in the Islamic Maghreb (AQIM)	264	33	12.5
Al-Qaida	74	3	4.1

*Note.* Data sourced from GTD 2019 version (time range covered: 1970-2018).

The question for this chapter is: how and why do violent political groups differ in their level of engagement in kidnapping activities? Why do some groups make much more frequent use of kidnappings than others? What are the organisational characteristics associated with

more frequent use of kidnappings, and what are the plausible underlying theoretical pathways for these associations?

To answer these questions, I will first conduct a narrative review of the existing literature in Section 4.2. This includes both theoretical discussions and empirical findings that are relevant to the explanation of kidnappings by violent political groups. I will then propose “extra-legal governance” as an analytic framework that can help to advance the explanation of kidnapping activities of violent political groups in Section 4.3. As the literature review section (Section 4.2) will suggest, the role of “extra-legal governance” in groups’ engagement in kidnappings does not seem to have been examined in the existing literature and will be the main theoretical question examined in my empirical analyses in Chapters 4 and 5.

Finally, this chapter presents the methods, results and discussion of my empirical analysis based on GTD-BAAD2 (the merged dataset from BAAD2 and GTD between 1998 and 2012), consisting of data on the group-level characteristics of 140 violent insurgent groups as well as their GTD-recorded kidnapping counts. Multiple linear regression models were used to examine whether and how much of the between-group differences in kidnapping frequency can be explained by group-level factors that capture various aspects of “extra-legal governance” by violent political groups such as territorial control, provision of social services, criminal financing, and receipt of external state funding. Additionally, a path analysis is conducted to further investigate the possible pathways through which organisational factors related to “extra-legal governance” may directly and indirectly predict groups’ engagement in kidnappings.

## **4.2 Kidnappings by Violent Political Groups**

In this section, I aim to provide an overview of literature relevant to the question: why do some groups use kidnappings more than others? This question is not only concerned with kidnappings committed in the context of violent political campaigns, but, more broadly, how violent political groups behave and make decisions in general. Both theoretical discussions and empirical findings pertaining to these two questions will be discussed. I will start with the broader academic discussions around decision-making by violent political groups, and then to the specific question of violent political groups' engagement in kidnappings, with a specific focus on the link between extra-legal governance by violent political groups and kidnapping activities.

The purpose of this literature review section is to provide a summary of main discussions and findings in the area of research on decision-making by violent political actors and kidnappings by violent political groups. Note, however, the theoretical discussions and empirical findings reviewed in this section are not necessarily consistent nor do they all follow the extra-legal governance explanation and framework examined in this thesis, which I discuss in Section 4.3 along with my hypotheses.

### ***4.2.1 Decision-making and Choice of Tactics by Violent Political Groups***

Attacks orchestrated by violent political groups are sometimes so abhorrent and dramatic that one might feel tempted to attribute them to “extremism” or “fanaticism.” However, studies of the psychological traits and mental health status of individuals involved in violent political organisations have so far been unable to establish a firm association between personality disorders or psychopathology and acts of political violence (Horgan, 2003; Post, 1998; Silke,



2003; Victoroff, 2005). While psychological forces and within-group processes are certainly relevant for understanding acts of violent political groups (Gill & Corner, 2017; Post, 1998), an increasing number of studies have focused on the “rational strategic logic” of violent political actors (Crenshaw, 1998; Crenshaw, 2008; Hoffman, 2011; Kydd & Walter, 2006; Merari, 1993). According to the rational strategic school of thoughts, violent political groups make decisions based on rational cost-benefit calculations of their perceived strategic interest to achieve political goals (Crenshaw, 1998). A growing body of studies testing this theory suggests that violent political groups often demonstrate logical strategic reasoning in their decision-making, rather than acting out of desperation or mindless imitation of others.

An important strand of these studies has looked at patterns of attacking tactics employed by violent political groups and found evidence in support of rational strategic considerations being behind them. For example, Gupta and Mundra (2005) used game theory to model suicide attacks by Hamas and Islamic Jihad in the Palestinian-Israeli disputed territories. They found that suicide bombings were not a product of religious fanaticism but rather a “well-timed strategic use of human sacrifice for specific nationalistic and religious goals by the leadership of the dissident groups,” and more specifically, to instil fear and mistrust among and within the Arab and Jewish civilian populations to set back the progress of peace negotiations (Gupta & Mundra, 2005 p.591; see also Gambetta, 2005; Pape, 2003, on the rational strategic perspective of suicide missions in violent political campaigns). Similar studies have also been carried out on the strategic logic behind the patterns of assassinations, bombings and hijackings by violent political groups (see Dugan et al., 2005; Wilson et al., 2010).

The strategic thinking of violent political groups is not only reflected in their choice of attacking tactics (as the previous paragraph discussed) but also in how they select their targets, which is often influenced by their ideological orientations, political goals, or practical

constraints (Crenshaw, 1987; Crenshaw, 1998; Drake, 1998; Hoffman, 2006; Lemanski & Wilson, 2016; Wreigh, 2013). As Drake (1998) argued, ideology provided “a motive and framework for action” (p.53) and was “extremely important in determining target selection because it defines how the group’s members see the world around them” (p.56). As a result, Palestinian groups attack Israeli targets; animal rights activists attack animal-testing labs; and Boko Haram abduct schoolgirls in Christian villages in Chibok, Nigeria. Studies have also found signs of strategic consideration in groups’ targeting decisions in how much they attacked civilians (Kachynova, 2015; Wood, 2010). For example, Wood (2010) found that fatal attacks on civilians are more prevalent among attacks by resourceless groups, as the more resourceful groups could offer a mixed set of incentives (other than just violent coercion) to achieve cooperation from the local community. In this way, they avoided unnecessary damage to their local support and political goodwill. Moreover, several studies have found that violent political groups strategically adapt their operations and organisational structures in response to the counterterrorism or counter-insurgency policy of relevant governments (Brandt & Sandler, 2009; Enders & Sandler, 1995; Enders & Sandler, 2012; Enders & Su, 2007).

Furthermore, analyses of groups’ information operations – such as propaganda content, credit-claiming of attacks, blaming of other parties – also show patterns of strategic calculation, for example, avoiding attribution of responsibility for attacks that would damage their reputation and popularity (Abrahms & Conrad, 2017; Hoffman, 2010; Ingram, 2015; Kearns et al., 2014).

As outlined above, ample evidence about violent political groups’ decision-making suggests that group behaviour is influenced by strategic calculations. However, the more complex question is: how exactly does this happen? Even the major early proponents of rational strategic theory did not assume violent political actors to be strictly rational with their

cost-benefit calculations (Crenshaw, 1987; Crenshaw 1998). Instead, they borrowed the concept of “bounded rationality,” which acknowledged that rational strategic calculations would be restrained by the limited information available to them, their subjective perception of benefits and risks, evaluation of their situation, needs, options and preferences in prioritising conflicting or competing values and views (*see* March, 1978; Simon, 1991; Simon, 2000). How do violent political groups weigh and prioritise different benefits, values and options, setting preferences for one over another, and how do subjective perceptions differ among actors, especially when faced with the uncertainty of consequences and risks? In this regard, the rational strategic approach that focuses on violent political groups’ external goals is of limited use. However, theories focusing on organisational processes and group social learning may provide some valuable insight.

An important body of work is based on organisational theory, which assumes that the fundamental interest of any political organisation is to survive and maintain itself (Crenshaw, 1987; McCormick, 2003). This is to be contrasted with the rational strategic approach that focuses on linking/explaining the behaviours of violent political groups to their stated political goals, such as driving out Western influence and instituting sharia laws, realising independence for an ethnic group. Although it seems to be an implied precondition for groups to want to stay in existence and maintain itself to be able to realise any externally political goals (so the organisational theory can arguably be easily integrated into the rational strategic framework), the organisational approach highlights an important alternative to view the motivation behind the strategic considerations of a violent political group. It provides a viable framework focusing on group activities and decisions directed “inward” for group-maintenance and governance purposes. More importantly, it demands the prioritisation of the internal need to

finance, sustain and keep the group in existence (over the explicitly advertised political pursuits) as the ultimate key to decipher violent political groups' "strategic" thinking.

Despite having different political goals, there are some universal challenges in "maintaining" the organisation that all successful violent political groups need to solve. This includes, for example, ensuring a sufficient supply of recruits, keeping existing members committed and motivated, having a stable funding flow to finance the offensive operations as well as daily-life necessities (e.g., clean water and food, health service), the capacity to enforce rules and orders in an extra-legal context in controlled territories where applicable (both among the groups' own members and the local civilian community), competition with other groups and the state for resources and reputation, and building up legitimacy despite adverse government information campaigns.

In *From freedom fighters to Jihadists: Human resources of non-state armed groups*, Mironova (2019) presents a study on the human resource management of ISIS based on hundreds of interviews with militant ISIS members. The book provides a rare insight into the common organisational challenges faced by violent political groups. For example, Mironova (2019) details the fundamental importance for groups like ISIS to stay competitive in the local militant market to attract capable and committed recruits, and to maintain a mix of short-term and long-term financing schemes to minimise the risk of funding shortages. In Mironova's survey of the reasons for fighters joining a particular group or changing to a different group, the alignment of ideology or stated political goals is not among the most cited. Instead, reasons were predominantly related to whether members trusted that the group would take good care of them and their families, and how well the group provided combat and training support, appeared successful and powerful, and managed corruption within the organisation (Mironova, 2019, p.73). Most interestingly, Mironova documented the challenges ISIS faced in managing

disagreements among its members on the level of religious commitment and fundamentalism in interpreting the religious texts (pp.209-228, *see* Chapter 8 on “managing ideology”). The “excessively” religious members can cause trouble for the group as they prioritise religious commitment over military tactical advancement for the organisation. For example, they would declare their fellow fighters (who were less religiously committed) to be not practising the true Islam; they would rather impose more stringent religious rules that are inefficient for military operations such as allocating more time to reading religious texts and praying rather than tactical training; they would disobey the leadership’s decisions that they deemed inconsistent with their more radical interpretation of religious mandates.

These findings provide valuable insight into the limitations of analysing the behaviours of violent political groups exclusively based on what one may consider a “rational and strategic” way of achieving political success as stated by the groups as their external goals. Rather, compelling evidence was provided by Mironova (2019) that violent political groups like ISIS face a constant challenge, directed inward, to manage and maintain its own presence and competence. Most importantly, once a group grows to a certain size, it faces the challenge of managing its own members and local population in the territory in which it operates, instituting an appropriate welfare, financial, security and an overall sustainable governance scheme (Mampilly, 2011). These organisational processes must not be overlooked when analysing their decision-making and behaviours.

Another important strand of literature relevant to explaining group differences in tactical choices concerns social learning, diffusion and network connectivity. This body of literature examines how certain behaviours and practices spread among relevant actors, noting that behaviours could be learned and emulated from other groups and allies, or based on a

group's own prior experience with or without undergoing rational cost-benefit calculations (Cliff & First, 2013; Horowitz, 2010; McCormick, 2003).

Originally, diffusion theory was developed to study how social economic policies spread transnationally among political actors (*see* Gilardi, 2010; Gilardi, 2012; Simmons et al., 2006). This was later applied to investigate the spread of certain operational tactics in violent political campaigns, and in particular, factors that would influence the “adoption” of the tactics of violent political actors (*see* Horowitz, 2010; Myers, 2000; Wang & Soule, 2012; Zhukov, 2012). Several of these studies have highlighted the importance of organisational capacity and logistical convenience to implement the relevant tactics (Horowitz, 2010; Zhukov, 2012), which is consistent with the line of thinking for a rational strategic approach and organisational process theory. Notably, Gilardi (2010) found that ideological orientation and geographical and cultural proximity (to the actors already practising the relevant policy or tactics) would influence one's subjective perception and evaluation of the effectiveness or benefits of the concerned practice. Moreover, evidence also suggests that prior operational experience, social network linkage and existing collaborations among political actors would influence decisions to adopt a new practice or tactic from others (Horowitz, 2010; Myers, 2000; Wang & Soule, 2012). These findings are valuable additions to an understanding of how subjective perceptions and value preferences can influence or even bypass strategic reasoning, while also pointing to the importance of looking at the interconnections and relationships among violent political groups rather than viewing them in isolation.

To summarise, the existing literature on violent political groups' decision-making suggests that they make strategic considerations in their offensive tactics and daily operations, although not exclusively in the sense of rational cost-benefit calculations in relation to achieving external political goals. Several other factors can shape their preferences and

subjective perceptions of the desirability, feasibility and risks associated with a certain tactic. This may include prior operation history, proximity to groups already using the tactic (ideological, cultural, geographical) or operational-collaboration networks. Moreover, the existing literature highlights that the strategic considerations of violent political groups should not only be seen through the lens of their stated political goals (e.g., separation and independence from a given state, implementing sharia law), but also interpreted as driven by the need to institute a degree of control and governance over their own members and local populations. For violent political groups' engagement in kidnappings, one should look beyond the tactical gains that may directly result from the abduction and captivity of valuable human targets, or the possible ransom income and political concessions that may help to advance the groups' political agenda, and ask: what does kidnapping achieve, if anything, for organisational survival and the necessary governance scheme involved to manage and control its members and local populations?

#### ***4.2.2 Kidnapping by Violent Political Groups***

Despite the extensive literature on terrorism and political violence in general, relatively few studies have been dedicated to kidnappings as a tactic in violent political campaigns (Farrington, 1980; Forest, 2012a; Kachynova, 2015; Lee, 2013; Pires et al., 2014). In the following pages, I will review literature that sheds light on the factors that may influence engagement in kidnappings by violent political groups. Specifically, I will review studies on the utilities and costs of kidnapping activities for the perpetrating groups, the organisational capacity and resources required to implement kidnappings, and studies that directly examine the factors influencing group-level differences in kidnappings.

##### ***What do Kidnappings Achieve?***

Kidnapping is a versatile tactic. Existing literature and evidence have documented a range of practical utilities that kidnappings may serve in violent political campaigns. The most notable are financial enrichment via ransom income and political advancement via concessions (e.g., release of imprisoned fighters, expulsion of military occupation), achieved through negotiation for the conditional release of the hostages (*see* Briggs, 2001; Dolnik, 2003; O'Brien, 2012; Otis, 2014; Pauwels, 2016; Turner, 1998; Tzanelli, 2006). In addition to the financial or political gains of fruitful hostage negotiations, violent political actors can also benefit from the physical control and coercion of the hostages through, for example, exploitation of labour and sex, interrogation for intelligence, stage “trials” and “confession” statements for propaganda purposes. Kachynova (2015) conceptualised these situations as “dyadic” kidnappings as opposed to “triadic” ones, to reflect the absence of a third-party victim (other than the kidnapper and the hostage), often the families or the relevant state governments who would be threatened and coerced into paying ransom and giving political concessions. Some examples of “dyadic” kidnappings include: to compel disclosure of intelligence from hostages, creation of scripted statements, “confessions” or even staged executions to achieve the propaganda effects as have witnessed with the numerous videotaped beheadings of kidnapped hostages by ISIS<sup>12</sup> (*see* also Torres et al., 2006 for an analysis of propaganda operations in the global jihadist movement, including the use of kidnappings). Some have also noted the important use of kidnappings to

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<sup>12</sup> A notable example is the British journalist John Cantlie – kidnapped in Syria and still a captive of ISIS – who appeared in a series of propaganda videos asking for the public to help change the UK’s no-concession policy and expressing disappointment at the UK government and Western media (*see* Prince 2016, Darbiq Issue 7 “the anger factory” p.76).



exploit the local population and community for recruitment (often children), labour or sex by coercion (*see* Cohen, 2013; Dunn, 2004; Kaplan, 2009; Oyewole, 2016; Smith, 2015).

The existing literature on kidnappings in violent political campaigns has largely adopted a “financial versus political” dichotomy as two fundamental dimensions of motivations by non-state political actors to engage in kidnappings (*see* Briggs, 2001; Elster, 2004; Noor-Mohamed, 2014; Turner, 1998; Williams, 2009). This approach makes heuristic sense, as demands by kidnappers during negotiations for the release of hostages often focus on either, or sometimes both, of these two dimensions. However, there are important limitations to this “financial versus political” dichotomy.

First, it is unclear how to categorise kidnappings that are not followed by any political or monetary demands, or public statements and gestures, but that are rather directed “inwards” to maintain the existence, continuance and cohesion of the groups. This includes, for example, the abduction of children from local villages by militant groups, followed by training and indoctrination, to expand membership (Dunn, 2004; Kaplan, 2009; Smith, 2015), or the mass kidnapping of local women for sexual and labour exploitation and to reward its fighters (Cohen 2013; Kachynova, 2015). These cases can arguably be considered “political” as they serve to strengthen the organisational capacity and cohesion to, ultimately, achieve their political goals (as argued by Turner, 1998). However, the nature of these cases is fundamentally different from kidnappings intended to make a political statement (e.g., ISIS’s mass beheading of the Coptic Christian hostages) or to achieve political concessions (e.g., the exchange of Israeli hostages for imprisoned Palestinians by Hamas). A simple financial versus political categorisation would not highlight these crucial differences in their motivations.

Second, determining whether a case is politically or financially motivated can be tricky, as there could be conflicting evidence pointing in different directions. Demands for political concessions might be just a cover-up for the underlying financial motivation (Elster, 2004; Turner, 1998), and vice versa, in situations where the hostages were executed after ransom was requested but not yet paid (Williams, 2009).

Third, kidnappings involve a complex series of logistical operations – from ambush and abduction to transportation to “safe” places, and then to captivity and negotiation if applicable, which can span a long time period (*see* discussions on behaviour models of kidnappings by Wilson et al., 1996; Wilson, 2018). During this multi-stage process, the nature and motivation of the kidnappings often does not stay static. Case studies based on interviews with people handling kidnapping negotiations (*see* Napoleoni, 2017) or recollections of surviving hostages (*see* East, 2015) suggest that it is not uncommon to see a change in the intended use of the kidnapped hostages (*see* also Williams, 2009). For example, violent political groups respond to changing political situations; a hostage initially kidnapped for financial motives might later become an opportunity for political propaganda or negotiation. Or, in more complex situations, many have documented cases where hostages abducted by a smaller militant group were later transferred (often with payment) to a more powerful group, which had the proper resources, experience and the need to use the hostages (especially foreign ones) for political bargaining or to negotiate for a higher ransom (Napoleoni, 2017). It is also not uncommon to see multiple hostages taken in one abduction operation, where the hostages were later used for different purposes, for example, some may be traded for ransom while some may be staged for execution (Williams, 2009). Retrospectively classifying a kidnapping as “political” or “financial” based on how it has effectively contributed to the perpetrating group is a useful pragmatic approach; however, one should always bear in mind that the initial motivation to abduct the hostages may

have been different. Explaining and understanding violent political groups' engagement in kidnappings by looking at the end-results of financial enrichment and political gains overlooks the nature of kidnapping as a series of complex dynamic operations.

Despite the broad range of goals that kidnappings may help to achieve, there is one key element that consistently presents in all types of kidnappings: the coercive control – over an extended period of time and often known to a targeted audience – over one or several kidnapping victims. Unlike other tactics used by violent political groups, such as bombings, armed assaults or assassinations, which are often one-off attacks aiming to kill or destroy the enemy, the gist of kidnapping lies in the hostages being alive. Only then could the hostages themselves or any concerned parties (such as families, governments) be coerced into a desired outcome, be it proffering ransom, political concessions, recruitment, sex or marriage, propaganda statements, or, in extreme cases, the staged execution of the hostages. Political scientists have also conceptualised kidnapping as a form of “nonlethal violence”<sup>13</sup> along with sexual violence, torture, mutilation, among others (*see* Cohen, 2013; Gilbert, 2020b; Kachynova, 2015). If there were to be any general explanation of why violent political actors engage in kidnappings, one way to think about the question would be that kidnappings provide the capacity to control and regulate people's behaviours while they are alive, rather than simply destroying the human or non-human targets on the spot. The need for controlling people's behaviour may be particularly pertinent when a group has seized territory and tries to exert

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<sup>13</sup> Although kidnappings do sometimes result in deaths and “staged executions” can be the purpose of kidnappings in some cases, kidnappings require that the hostages first be “taken” or “kidnapped” *alive* before further control and decisions can be imposed on them.

control over the social economic interactions among the local population (Kasfir, 2015; Mampilly, 2011).

For violent political groups, kidnappings can be thought of as a coercive strategy aimed at gaining control over people's behaviours in the broader context of establishing governance and state-like functions. Charles Tilly famously argued in his seminal works, *War Making and State Making as Organized Crime* (1985), and *Coercion, Capital and European States, AD 990-1990* (1990), that there were important links between war-making, state-making, protection and extraction (of money and resources) activities, which have driven the formation of the contemporary nation-states we live in today. In particular, Tilly (1985, p.181) defined "state-making" activities as those directed internally to produce "durable instruments of surveillance and control within the territory" and emphasised the role of monopolising the means of coercion and violence in all four types of activities. Kidnapping, as a form of coercion by forcefully abducting and detaining human hostages to compel behaviour compliance (either from the hostages themselves or third parties), might be particularly relevant for violent political groups to establish "durable instruments of surveillance and control" in extra-legal contexts, a quasi "state-making" process in Tilly's term. Although Tilly's thesis was not strictly about violent political groups, the "warring" polities at a time when nation-states were forming likely bears some resemblance to the groups and organisations committed to using organised violence to fight for political goals in an extra-legal context nowadays. Historical scholarship reveals the important role of hostage-taking and kidnappings in medieval and early modern political dynamics (Dunn, 2013; Kosto, 2012). Especially in periods of political strife and contested power, kidnapping of members of the enemy or non-compliant members of the society could yield considerable bargaining power that could help establish a more effective monopoly of power. For example, Kosto (2012) has argued that hostageship is featured in

“nearly every major politico-military development or event between the fifth and fifteenth centuries.” Could there be a similar relationship between combat-operations (war-making), local governance capacity-building (state-making), protection and extraction activities for contemporary violent political groups? Would the use of kidnapping be similarly pertinent to the establishment of internal control, local governance and extraction of resources?

Contrary to common perceptions, most kidnappings by violent political groups are committed locally in or near where the groups operate (Forest, 2012a; Forest, 2012b; *see also* the relevant statistics reported in Chapter 2, p.31). Several studies have documented the use of kidnappings by violent political groups on local civilians, businesses and professions, tourists and visitors to regulate their behaviours through coercion or intimidation, which served to exert control and compel compliance within their territory (*see* Cordesman, 2006; Gilbert, 2020b; Kachynova, 2015; Williams, 2009). Sometimes it was to expel and punish (and therefore deter future) alleged spying activities among the local civilian populations, which oftentimes ended up becoming what Williams (2009) referred to as “a prelude to execution.” Sometimes it was to coerce local businesses and individuals to conform to their “protection” scheme – to secure regular monetary payment in exchange for safety via extortion (Kasfir, 2015; Gilbert, 2020b), or to control and silence media, intellectuals and teaching personnel to conform to their rules (Cordesman, 2006; Williams, 2009). Kidnappings have also been used as a tool to terrorise and drive out the presence of foreign companies, NGOs and journalists, who were often suspected as being spies or points of liaison for foreign and enemy forces (*see* Cordesman, 2006; Napoleoni, 2017).

Moreover, although there is limited literature in this respect, a review of the GTD kidnapping event data shows that it is not uncommon for violent political groups to use kidnappings to enforce religious, moral or other community rules in the local area the political

groups control. For instance, Al Shabaab was documented to have kidnapped local youths for “wearing trousers extending beyond the ankles and for having foreign hairstyles” (*see* [Appendix I](#), GTD event ID: 201010010003), for playing football which was “outlawed” by the group (GTD event ID: 201106060012), and for being accused of watching “indiscipline films and pornographic videos on their cell phones” (GTD event ID: 201107050004). Women were kidnapped for failing to wear the “appropriate” hair covering (*see* GTD event ID: 201101160010, 201101160011, 201107260007), and others for being accused of consuming or dealing drugs (*see* GTD event ID: 201106050012, 201106180009, 201107130008), or refusing to comply with orders (*see* GTD event ID: 201012210003).

Human Rights Watch also observed in Colombia and Venezuela that armed groups like FARC and ELN played roles similar to the police in instituting and enforcing rules for social control (Human Rights Watch, 2020). A wide range of rules were imposed on the local civilians and enforced by the violent groups using kidnappings and threats, including “curfews; prohibitions on rape, theft, and murder; and regulations governing everyday activities such as fishing, debt payment, and closing times for bars” (Human Rights Watch, 2020, p.1). Kachynova (2015) likened the practice of kidnapping civilians en masse by violent political groups to the state’s “arresting” power. Rasmussen (2017) also discussed the use of kidnappings by revolutionary groups to set-up “people’s trials” and to operate “people’s prisons” (pp.546-548).

The analogy of kidnapping by violent political groups in an extra-legal context to the exercise of “legitimate” coercive power by contemporary nation-states to enforce law and order makes logical sense. When violent political groups are powerful enough to control territory, they effectively create a vacuum from the reach of a state’s governing function, as well as the need and opportunity to fill the role. An important part of the state’s governing function is the

monopoly use of coercion to enforce the laws and orders of the land (Redner, 1990; Weber, 2009). What would be considered a legally authorised arrest, pre-trial detention, or imprisonment if performed by a legitimate government in a society governed by the rule of law may manifest as abductions and kidnappings in an extra-legal context under the rule of violent political groups. The coercive law-enforcement activities in societies governed by the rule of law and their illicit equivalent in extra-legal context – kidnappings – may serve a somewhat similar purpose: compelling compliance to rules and social orders. However, as opposed to compelling compliance to laws produced in a democratic legislative process, kidnappings in extra-legal context serve to compel submission to the power and rules of social control arbitrarily imposed by the militants. As such, one may expect to see a link between need for a violent political group to achieve local governance/control and kidnappings. Although this has not been explicitly discussed or empirically tested by prior research on kidnappings by violent political groups, evidence on the practical utilities of kidnappings and works on collective political violence point in that direction.

### ***What do Kidnappings Entail?***

Kidnapping can incur substantial costs for the perpetrating groups. Existing literature has highlighted the logistical complexity and resource-intensive nature of the practice. Several studies suggest that available group resources and planning are key to successfully accomplishing kidnappings (Sandler & Scott, 1987; Gaibullov & Sandler, 2009; Santifort & Sandler, 2012; Wilson et al., 1996; Wilson & Smith, 1999; Wilson, 2000). This includes, among others, the ability to scout and monitor worthy targets, to make logistical and operational plans to secure access to targets, to implement the abduction operations, to transport and constantly guard the hostages, and where applicable, to negotiate with relevant parties.

Rasmussen (2017) conducted comparative case studies of kidnapping activities in six countries (Spain, Ireland, Uruguay, Argentina, Italy and Germany) between 1968 and 1990. The study observed that kidnappings may incur heightened security risks and operational costs for the perpetrating groups, which would discourage some from the adoption of the practice, especially for those lacking the necessary organisational resources and capacity. For example, Rasmussen noted that the main consideration behind the Irish Republican Army's (IRA) seldom use of kidnappings was concerns over repercussive security checks and searches all over the country, which would jeopardise many other aspects of their operations (Rasmussen, 2017, p.546, quoting Howard, 2004, p.78):

The biggest issue we had with kidnappings is that they paralyse the whole country. They put all kinds of things at risk – arms dumps, planned operations, safe houses. You've got guys on the run who are put at serious risk of capture because all of a sudden there's this heightened state of security. There's roadblocks, searches. It makes it impossible to operate. And it gives the police a perfect excuse to round republicans up.

However, the security risks linked to kidnapping operations – like those highlighted above – may be considerably less devastating for groups that control territory (*see* Elster, 2004; Gilbert, 2020b). A body of literature has highlighted the game-changing effect of holding territories for groups to engage in kidnappings (Asal et al., 2019; Elster, 2004; Gilbert, 2020b; Ponce & Andresen, 2020). In addition to creating the need for kidnappings to enforce rules and regulate the behaviours of local populations (as discussed in the preceding pages), controlling territory also makes kidnappings easier and less costly in several ways. First, controlling territory likely makes it easier for groups to scout and monitor their targets for kidnappings, and to implement the abductions. Many suggested that kidnappers evaluate their targets for their financial or political worth before committing to the operation; the amount of



kidnapping ransom is also known to be set by the kidnapping groups based on how much the victim (and their families/country) could practically afford (Briggs, 2001; Gilbert, 2020b). Territory control makes it much more convenient for the kidnapping groups to collect intelligence on the targets and operate without disruption. Moreover, controlling territory makes it easier to transport, hide and detain the hostages, and to guard against rescue attempts by the relevant authorities (Elster, 2004; Gilbert, 2020b).

Studies have also highlighted the relatively high demand for human resources and institutional efficiency to engage in extensive kidnappings. Complex logistical arrangements are often required in the transporting, hiding, and guarding of the hostages by the perpetrating groups to avoid capture and rescue attempts by government or enemy forces (*see* studies documenting the experience of surviving hostages and interviews with people involved in kidnapping practice in East, 2015; Gilbert, 2020b; Napoleoni, 2017). The logistical and operational complexity involved in kidnapping requires specialised division of labour and expertise in the different stages of kidnapping practice, including scouting, abduction, transportation, guarding and negotiation. Gilbert (2020b) also emphasised the continuing nature of human resource commitment that must go into the daily care, attending and guarding of hostages, often for weeks, months or even years. This means less available human resources for combat operations, making the groups less mobile and more vulnerable to attack.

### ***Organisational Factors Related to Kidnappings: Empirical Evidence***

As discussed at the start of this chapter, the average level of kidnappings committed by violent political groups differs greatly. The benefits and costs associated with kidnappings analysed earlier suggest that several organisational factors may play an important role in explaining why some groups are more likely than others to engage in kidnappings – to name a few, a group's

need to establish control and governance, group resources and capacity, and status of territorial control. However, the empirical evidence is relatively limited. Only a handful of studies have examined the organisational level differences in kidnappings among violent political groups through empirical data.

Using GTD kidnapping data between 1970 and 2010, Forest (2012b) applied logistic regression models to examine the relationship between a list of organisational features of terrorist groups to determine whether they had engaged in kidnappings. Although Forest's original interest focused on ideological orientation, his analysis did not find any significant effect of ideology on kidnappings. However, factors related to organisational resources – such as a larger membership size and the number of allies connected to the groups – turned out to be positively associated with engagement in kidnappings. These results corroborate prior observations that kidnappings are highly demanding in terms of human resources and organisational capacity (Gilbert, 2020b; Rasmussen, 2017). It also lends support to the rational strategic theory of decision-making by violent political actors, which assumes that groups respond to cost-benefit stimuli and tend to refrain from a practice when the cost is too high. In particular, as discussed previously, kidnappings often create a heightened security risk for the group due to repercussive searches and rescue attempts by the relevant authorities. They also require a continued commitment of human resources to non-combat activities and specialised skills in the complex logistical and operational arrangements (Gilbert, 2020b; Wilson & Smith, 1999; Wilson, 2000). As such, kidnappings may sustain a higher burden for groups with a small membership size and limited resources and therefore are less likely to be adopted. However, it is also important to note that some of the most relevant organisational factors identified in the existing literature for kidnappings had not been included in Forest's (2012b) analysis. This includes, for example, the extent of territorial control by a group, the types of

funding sources, and variation in the organisational structure. It would be interesting to note whether there would be any changes in the results if these factors were measured and included in the model.

Another key contribution to our understanding of violent political groups' differences in kidnapping activities was conducted by Asal and colleagues (2019). The study also relied on the BAAD2 data and examined the relationship between a list of organisational features and groups' engagement in various forms of criminal activities. One of their outcome variables was kidnappings for ransom. Consistent with Forest (2012b), a positive effect was detected for territory control and the number of criminal connections, highlighting the importance of organisational resources and capacity. However, the study also found a negative association between the provision of social services and groups' engagement in kidnapping for ransom and robbery, which Asal and colleagues (2019) interpreted as related to violent political groups' desire to cultivate legitimacy for their governance among local populations. However, kidnapping for ransom only takes up a small fraction of all kidnappings recorded in the GTD (*see* Chapter 2, p.32). It hence remains to be seen if this legitimacy-cultivation dynamic holds when the analysis is expanded to include non-profit-driven kidnappings. As discussed earlier, case studies of kidnappings recorded in the GTD suggest that the practice has also been used to enforce religious and community rules to punish drug-dealing, pornography viewing, and "inappropriate" dress codes. The relationship between "legitimacy-cultivation" and kidnappings, as a general coercive tool employed by violent political groups, will be much more complex.

The most recent contribution comes from Gilbert (2020b). Gilbert's thesis focused on "coercive kidnappings," which she defined as "forceful abductions followed by demands that condition the victim's release" (Gilbert, 2020b, p.4). Based on extensive interviews with

former FARC and ELN members, the central argument put forward by Gilbert was that “coercive kidnappings” by the Colombian groups were intrinsically linked to the enforcement infrastructure of “protection rackets.” These “protection rackets” served to extract stable “taxation” income from the local civilian communities, which plays a fundamental role to financially sustaining their operations and political fight. Moreover, Gilbert observed that “kidnapping tapered off” in many areas when the local population gradually accepted the “taxation” scheme and would voluntarily comply with extortion (p.184). She further argued that groups that received external funding and support would have less need for coercive kidnappings. For example, the AUC, the paramilitary group primarily funded by the wealthy landowners and coca growers, committed only a small volume of kidnappings, mostly as a prelude to torture or killing.

Gilbert (2020b) also supplemented her qualitative study of kidnapping by violent political groups in Colombia with some preliminary statistical analyses. Applying a Poisson regression to the yearly kidnapping counts of 158 violent political groups from different countries (using the UCDP data and the GTD), Gilbert sought to examine the impact of the different funding sources on kidnappings. The different funding sources examined by Gilbert include: 1) protection-extortion rackets; 2) sales of “booty futures” as termed by Ross (2002) to describe the phenomenon of selling the future exploitation rights to natural resources in places where the violent political groups were fighting to take control; and 3) exploitation of natural resources. The focus on funding source types is to explore the generalizability of her qualitative observation in Colombia that kidnapping is linked to the “protection rackets” taxation scheme. Gilbert’s statistical analysis found that groups’ engagement in kidnappings was positively associated with extortion, negatively associated with the sales of booty futures, and not significantly related to exploitation of natural resources. These results provide some

preliminary evidence supporting the argument that kidnapping may be an important enforcement tool for political groups to realise civilian compliance for extra-legal “taxation” schemes. However, Gilbert’s statistical analyses have some apparent limitations. The study applied a simple Poisson regression to all group-year observations on kidnapping counts without accounting for the nested structure of the data. In other words, yearly observations belonging to the same organisation are likely not independent. As such, the assumption of independence of observations for the Poisson regression was likely violated and may result in biased estimations (Coxe et al., 2009; Kenny & Judd, 1986). In addition, Gilbert’s Poisson regression model only included independent variables accounting for violent political groups’ funding schemes. She did not control for any other theoretically relevant factors. As discussed earlier, key organisational features such as territory control status, membership size, network connections, leadership structure, and external financial sponsorship from states or diaspora would likely influence both the engagement in kidnappings and the funding schemes employed. Their absence from the model means that possible confounding effects in the relationship between extortion and kidnappings were overlooked. Moreover, the effects of these organisational features that may independently contribute to kidnappings, in parallel with the types of funding schemes employed, were not accounted for in Gilbert’s model and remain to be more thoroughly examined.

To summarise, only a very small number of studies have empirically examined organisational factors that are associated with violent political groups’ engagement in kidnappings (Asal et al., 2019; Forest, 2012b; Gilbert, 2020b). Results from these studies are largely consistent with prior observations on the utilities and costs of kidnappings. Factors related to group resources and capacity – territory control, membership size, number of connections and allies – were found to have a significant effect on groups’ engagement in

kidnappings (Asal et al., 2019; Forest, 2012b). Meanwhile, studies also provided some preliminary evidence that kidnappings might be linked to violent political groups' need to build quasi-state governance functions and to achieve local population control. For example, Gilbert's (2020b) finding that kidnappings were an important enforcement tool for violent political groups to control and coerce the local community to submit to their "taxation" scheme; Asal and colleagues' (2019) finding that violent political groups would provide social service and strategically manage their engagement in crimes (kidnapping for ransom included), to cultivate legitimacy for their political fight and ruling in the local community.

However, most studies on kidnappings so far have focused on the "triadic bargaining" aspect of kidnappings, examining the outcomes of negotiations (Phillips, 2015; Oyewole, 2016; Yun & Roth, 2008), and effects of government "no-concession" policies (Brandt & Sandler, 2009; Mellon et al., 2017). The very few recent empirical studies that have tested group-level variations in their engagement in kidnappings have also limited their analyses to kidnappings for ransom and kidnappings accompanied by negotiation requests (*see* Asal et al., 2019; Gilbert, 2020b), effectively excluding "dyadic" kidnappings from their analyses. There is a gap in the existing literature in understanding kidnappings by violent political groups as part of their coercive strategies to establish and maintain governance and control in an extra-legal context. The hypothesis that violent political groups' use of kidnappings is related to their need and capacity to realise extra-legal governance has not been sufficiently examined. This current study endeavours to do exactly that.

### **4.3 Kidnapping as a Coercive Tool in Extra-legal Governance**

To examine the relevance of extra-legal governance in explaining the variations among groups in their level of kidnappings, one must start with the question of how to operationalise the

abstract theoretical construct of “extra-legal governance” into measurable variables for empirical analyses. As discussed in Chapter 1, this thesis defines governance as “a variety of formal and informal institutions and mechanisms [that] can regulate exchange, including repeated interactions,” following Shortland and Varese (2016, p.812) and Mampilly (2015, p.77). Governance by violent political groups in an extra-legal context can be manifested in a wide spectrum of forms. These range from the minimal “security and extraction” type, focusing heavily on coercion and exploitation of local communities (*see* the northern Côte d’Ivoire and Liberia examples by Förster, 2015; Reno, 2015), to those providing a comprehensive set of public services and economic livelihood for the locals (Kalyvas, 2015, for the Greek experience). Political scientists have studied the general conditions where the need to establish governance would likely arise, the situations that foster and facilitate the establishment of extra-legal governance schemes, the types of activities often involved in the provision of extra-legal governance, and how different ideological values and goals held by violent political groups present them with different challenges and styles of governance (Arjona et al., 2015; Mampilly, 2011; Förster, 2015; Furlan, 2020; Kalyvas, 2015; Suykens, 2015).

Informed by these findings, this study considers extra-legal governance not as a single measure on a one-dimensional numerical scale, but as a multi-faceted construct where each of its different aspects may be associated with kidnappings in different ways. In this study, I examined four key aspects of the organisational characteristics relating to extra-legal governance by violent political groups. These include: 1) precondition factors that influence the need for extra-legal governance; 2) types of activities indicating efforts to establish or reinforce extra-legal governance; 3) organisational capacity factors that enable the enforcement of extra-legal governance; and 4) ideology factors that encourage behavioural regulation and

control of the general population. The relationships between these different aspects of organisational characteristics with the notion of extra-legal governance will be discussed in the following pages. More importantly, I will develop a list of specific organisation-level factors and conditions, pertaining to each of these different aspects of “extra-legal governance” based on the relevant literature. I will also discuss their hypothesised relationships with kidnappings, to be empirically tested in this chapter. This will inform us if empirical evidence shows patterns consistent with the proposed link between extra-legal governance and kidnapping.

Note, however, I did not intend to suggest that extra-legal governance is the only explanation for kidnappings by violent political groups. On the contrary, this study intends to examine whether extra-legal governance is *a* relevant factor in explaining violent political groups’ engagement in kidnappings. It also acknowledges that factors to be tested under the extra-legal governance framework may also influence kidnappings through alternative theoretical pathways. For the remainder of this section, I will mainly discuss my hypotheses regarding the associations between the relevant organisational-level factors and kidnapping under the theoretical framework of extra-legal governance. After laying out each main hypothesis, where applicable, I will then discuss the possible alternative theoretical interpretations of the hypothesised associations.

#### ***4.3.1 Precondition Factors for Extra-legal Governance: Territorial Control, External Support***

The proposed “extra-legal governance” thesis of kidnapping stipulates that kidnappings by violent political groups may serve as a coercive tool to establish and reinforce extra-legal governance. Following this theoretical approach, precondition factors – those that prescribe the common scenarios and conditions that give rise to the need for the violent political groups



to establish some forms of governance – are expected to be positively associated with their engagement in kidnappings. In this regard, territorial control status and the availability of regular external funding support are two important factors identified in existing literature (Kasfir, 2015; Mampilly, 2011; Stewart, 2016).

As Arjona and colleagues (2015) succinctly described:

When rebels secure territory, they must decide how they will interact with local residents. They can rob and rape them, they can recruit them, they can ignore them, or they can try to govern them – for better or worse.

Although the quote above seems to present “governance” as an alternative to robberies, rape, and recruitment, they are not meant to be mutually exclusive (Arjona et al., 2015). Extra-legal governance schemes may also include all those elements (recruitment, rape, looting) by regularising and institutionalising them. However, the key message delivered by the quote is: the tactical advancement of seizing territory presents violent political groups with an opportunity, an option, to switch from “roving bandits” to “stationary bandits” (Oslon, 1993), and to decide whether they want to establish some forms of long-term continuous relationships with the local populations and communities.

However, observers of violent political campaigns have noted that governance is not always an option when groups seize territories. Violent political groups could choose to “loot and move” or simply expel or destroy the local civilian communities to effectively create a military base for the combatants (Kasfir, 2015; Mampilly, 2011). An important factor repeatedly identified as being an influence on this process is the availability of external support and funding sources, such as from foreign state sponsors or the international diaspora (*see* Collier & Hoeffler, 2004; Gilbert, 2020b; Kasfir, 2015; Staniland, 2012; Weinstein, 2007). Sufficient external funding support can spare the violent political groups from the need to

establish and enforce a local scheme of extraction/taxation to supply themselves and focus more on combat operations to achieve their external political goals. The lack of external funding support, on the other hand, means that the group must find ways to supply itself in a sustainable way. Thus, governance and control of local communities and business for regular extraction or taxation presents a viable option (Gilbert, 2020b; Kasfir, 2015). It is therefore hypothesised that:

**Hypothesis 1:** Violent political groups that control territory are more likely to seek local governance and engage in kidnappings.

**Hypothesis 2:** Violent political groups that receive substantial external funding are less likely to seek local governance (especially in the financial extraction aspect) and therefore less likely to engage in kidnappings.

Having said the above, one should be reminded that the extent of territory control and external funding are best seen as *preconditions* that give rise to the need to establish extra-legal governance, which then encourage or necessitate the use of kidnappings for coercive control. Although the association of these two precondition factors with kidnapping is expected, their effect on kidnapping might be mediated by variables directly measuring governance activities, such as the provision of social services, and participation in and regulation of illicit markets (*see* discussions in Section 4.3.2). Moreover, territory control may also influence the number of kidnappings committed by violent political groups due to mechanisms other than extra-legal governance. As discussed earlier in the review of kidnapping literature, controlling territory makes the transporting and hiding of hostages much easier and less a devastating security risk from repercussive raids and rescue operations from the relevant authority (Elster, 2004; Gilbert, 2020b; Rasmussen 2017; *see* more detailed discussions in Section 4.2.2 on the cost of kidnappings). So, one may also expect to see territory control having a separate direct effect

on kidnappings by making the practice easier and less risky to implement. A structural approach to study the specific pathways of how territory control influences kidnappings is necessary to help get closer to understanding these underlying causal mechanisms.

#### ***4.3.2 Extra-legal Governance Activities: Social Service Provision and Illicit Market Financing***

In addition to the precondition factors discussed above, a second aspect of “extra-legal governance” that is expected to have a positive association with kidnapping is the commonly observed governance activities of violent political groups. In this regard, two notable spheres of governance activities by violent political groups in an extra-legal context lies in the areas of: 1) public social services; and 2) illicit businesses and markets. I hence expect that if violent political groups were engaged in activities in these two areas, they would have a higher likelihood to engage in kidnappings.

##### ***Provision of Social Services***

It is not uncommon to see violent political groups provide some forms of social services as public goods to the local communities, including public order and safety, healthcare, education, food and water supply, and dispute resolution (Ajorna, 2015; Steward, 2016; Steward, 2019). They often constitute a key aspect of governance and may serve several purposes. Provision of social services – doing the “public good” to the communities – may help to negotiate political “legitimacy” for violent political groups. An enhanced legitimacy may boost trust in the group, enhance voluntary compliance to their ruling, reduce resistance and help to keep existing members from leaving and attract future recruits (Ajorna, 2015; Asal et al., 2020; Förster 2015; Stewart, 2016). More importantly, it may be vital for the groups’ own survival and operations to maintain essential public social services, control or even monopolise them in territories they

operate. Some examples include the servicing and securing of transportation routes, production and logistical supply of life essentials like food, water, medicine, cleaning of waste. For some areas of public social services such as education, the performance of religious rituals, “trials and punishment,” and dispute resolution, controlling and regulating these areas are important ways for groups to promote and practice their world views and ideologies, and in a way, to advance their political agendas.

Under the proposed extra-legal governance thesis of kidnapping, it is a coercive tool that serves to establish control and governance in an extra-legal context. Therefore, I expect the frequency of kidnappings to be positively associated with the extent of extra-legal governance activities, including the provision of social services.

One may find this hypothesis counter-intuitive: why should the “benign” provision of social services in the territories the groups operate be positively associated with the “repugnant” kidnappings? Indeed, the use of kidnappings – especially those for exploitive purposes such as kidnapping for criminal gains – can undermine groups’ political legitimacy and alienate supporters (Asal et al., 2019; Asal et al., 2020, Gilbert, 2020b). However, restrained use of violence and coercion to enforce rules supported by normative values and sense of social justice in the local community may enhance the legitimacy and quality of extra-legal governance (Arjona et al., 2015; Gutiérrez-Sanín, 2015). Without a legally recognised judicial and policing system in an extra-legal context, kidnappings may be employed to serve as a necessary tool to enforce the social order and peace of the community, or even in the delivery of social justice. One such example documented in the GTD involves Lashkar-e-Islam, an Islamic extremist group in Pakistan, which kidnapped six alleged thieves who had been stealing phone cables, medicines, medical equipment and furniture from local schools and dispensaries, causing discontent in the local communities (*see [Appendix I](#), GTD event ID: 201003200022*). The

effects of kidnappings by violent political groups in an extra-legal governance context is arguably mixed, depending on the specific context and manner in which they were committed.

But more importantly, one must distinguish the question about the “repugnant effects” of kidnapping from the question of the hypothesised association between kidnapping and provision of social services. Under my broader hypothesis, kidnapping represents a necessary “enforcement” feature of governance in an extra-legal context, where the provision and control of public social services would also likely be present. This proposition of “association” does not imply that kidnapping should only foster a positive effect on governance or the overall strategic interest of the perpetrating group.

Moreover, in some cases, the provision of social services by violent political groups may, indeed, directly necessitate the use of kidnappings. The provision of security, healthcare, education, religious services, transport, dispute resolution and social “justice” within one’s territory is not only a matter of supplying the much-needed services to benefit the local. More importantly, they represent the power-grabbing for social control and taking-over of important venues for influence. In this regard, coercive means like abductions and kidnappings may help to regulate non-conformers and dissenting voices. For example, the Kurdish Worker’s Party has frequently abducted teachers in their controlled areas to scrutinise them and subject them (and therefore indirectly the wider student populations) to their “propaganda” (GCPEA, 2018; *Hürriyet Daily News*, 2012). Al Shabaab kidnapped locals who violated rules they put in place regarding dress code, leisure activities, and drug-use. (see [Appendix I](#)). It is therefore hypothesised that:

**Hypothesis 3:** Violent political groups that provide social services to the local communities are more likely to engage in kidnappings.

### ***Regulation of Illicit Markets and Activities***

Another essential aspect of extra-legal governance by violent political groups involves the control and regulation of income-generating interactions with and among the local businesses and individuals. In an extra-legal context, income-generating interactions often take the illicit forms of markets and networks such as extortion protection rackets, smuggling of daily necessities, drugs, arms, or even trafficking of human cargos (Förster, 2015; Gilbert, 2020b; Kasfir, 2015; Meehan, 2011; Reno, 2015; Rodríguez-Franco, 2016; Williams, 2009).

As Förster (2015) observed, once they have assumed control of a territory, violent political groups often set up checkpoints, roadblocks and regular patrols on major transportation routes to secure the region. Meanwhile, they could also have an incentive to encourage the resumption of local business and public life (interrupted by violence) as it would allow them to collect “taxation” and “fees” on the traffic of essential goods for local livelihoods and businesses, as well as to scrutinise and financially charge any travellers that enter or cross the region. This security-taxation infrastructure paves the way for violent political groups to regulate and benefit from local illicit businesses such as extortion schemes, drug trafficking and smuggling (Rodríguez-Franco, 2016; Kasfir, 2015). In this context, kidnapping can be a viable and effective tool that helps to regulate the local commercial and business interactions as desired by the violent political groups (*see* Gilbert, 2020b, for observations on the role of kidnapping in enforcing extortion and protection rackets by FARC and ELN in Colombia). It is therefore hypothesised that:

**Hypothesis 4:** Violent political groups that engage in an organised form of criminal financing activities (extortion, drug trafficking, smuggling) are more likely to engage in kidnappings.

### ***4.3.3 Group Capacity: Size, Command Structure and Network Connectivity***

The third aspect of organisational factors and conditions that are expected to influence groups' level of engagement in kidnappings relates to the broad notion of group capacity. By group capacity I mean the “enabling factors” of an organisation that determine its ability to implement intended operations (Cox et al., 2018). This often includes human resources, institutional structure, knowledge and skills, and connections. Different operations may require different “enabling factors.” For the purposes of implementing kidnapping operations in an extra-legal governance context, three factors stand out as particularly important: sufficient human resources; an efficient command structure; and network connectivity.

Non-state political actors “must be of sufficient size and strength to challenge the government for control” and be able to implement coercive means like kidnappings to the local populations (Mampilly, 2011, p.4, citing Weinstein 2007). Kidnapping is also noted to be one of the most logistically complex and resource-demanding practices employed by violent political groups. As discussed more extensively in Section 4.2, in addition to the resources and planning that go into the initial abduction operation, kidnapping entails a continued commitment of human resources in transporting, controlling, guarding and taking care of the hostages (*see* East, 2015; Gilbert, 2020b; Napoleoni, 2017). The logistical complexity of kidnappings not only requires a sufficient amount of human resource commitment to carry out the practice but also efficient command chains for a specialised division of labour and coordination of tasks (Gilbert, 2020b). In this regard, a hierarchical command structure, rather than a non-hierarchical one, is often considered more efficient for an organisation to allocate and coordinate the different tasks required by complex operations like kidnappings (Heger et al., 2012; Kilberg, 2012).

It is therefore hypothesised that:

**Hypothesis 6:** Violent political groups that have a larger membership size are more likely to engage in kidnappings.

**Hypothesis 7:** Violent political groups that have a hierarchical leadership structure are more likely to engage in kidnappings.

The third group capacity factor that may influence groups' propensity to engage in kidnappings is their network connections with other groups. A growing body of literature suggests that decisions and behaviours by violent political groups should not be viewed in isolation from their connections and networks (Asal et al., 2016; Bapat & Bond, 2012; Phillips, 2014; Walther et al., 2020). Violent political groups form alliances and adversarial relationships with one another. Alliance with other political actors is noted to generally enhance a group's ability to exert influence and control (Arjona et al., 2015; Barter, 2015). The number of allies a group can procure is an indication of their strength and ability to receive support from the outside world to handle complex and challenging operations. For kidnappings specifically, the support from allies may include intelligence on worthy targets, securing trafficking routes to transport and hide the hostages, resisting or avoiding rescuing raids from authorities or government forces, intelligence and experience negotiating with different parties to maximise benefits from the kidnappings. Moreover, existing literature on kidnappings and human trafficking have documented the practice of transferring and trading human hostages among different violent political groups and organised groups (Napoleoni, 2017). This means groups connected to more allies are more capable of benefiting from the kidnapping practice and taking advantage of the illicit markets for trading in "human" goods. More isolated groups (those with fewer or no allies), on the other hand, may be relatively weak in their capacity to carry out kidnapping operations – which are known to be logistically complex and prone to



generate repercussive measures – or to procure benefits from the kidnappings. It is therefore hypothesised that:

**Hypothesis 8:** Violent political groups that have greater network connectivity to allies and criminal organisations are more likely to engage in kidnappings.

In addition to being a factor that indicates the ability to implement and take advantage of kidnapping operations, network connections to allies may also influence groups' engagement in kidnappings via emulation and social learning mechanisms (Horowitz, 2010; Myers, 2000; Wang & Soule, 2012). In other words, if there is a positive association between the number of network connections to allies and level of engagement in kidnappings, it may also be interpreted as supporting an explanation of violent political groups' kidnappings through emulation and social learning processes.

#### ***4.3.4 Ideology***

The final aspect of extra-legal governance that I expect to be associated with kidnappings is variation in ideological orientation. Some ideologies are known to encourage a more interventionist view than others – they are more prone to call for pervasive regulation of everyday interactions of the general population in their extra-legal governance scheme (Furlan, 2020; Kalyvas, 2015; Suykens, 2015). Ideologies that include or encourage more interventionist views may be more likely to necessitate the use of kidnappings to compel behavioural compliance to enforce those interventionist views.

Ideology defines the set of political and moral values held by violent political actors, the ultimate cause and goals they are fighting for. It provides “a motive and framework for action,” and is widely recognised by scholars as a force that shapes the decision-making and

behaviour of violent political groups in important ways (Crenshaw, 1998; Drake, 1998; Forest, 2012b). The three most common types of ideologies adopted by violent political groups are religious extremism, left-wing revolutionism, and ethnic separatism (Forest, 2012b).

Ethno-separatist groups have a naturally formed base of supporters and are mostly concerned about secession from a country based on their existing ethnic culture and heritage to form *a natural polity* (see the case study of the Naga ethnic-separatist group in North India by Suykens, 2015). In other words, groups following an ethnic-separatist ideology may be less concerned about expanding their “group” by recruiting or converting the wider population or regulating the behaviours and lifestyles of the population at large. As such, they may have a lessened need to use kidnapping as a coercive tool in an extra-legal governance context.

However, religious extremists and left-wing revolutionaries are likely more prone to an interventionist approach, as they would seek to expand their constituencies and regulate the belief systems and behaviours of people not originally belonging to their groups. For example, violent political groups guided by a religious extremist ideology are motivated to seek forceful conversion and recruitment of the general population into their religion, and to enforce the relevant religious rules in areas in which they operate. Studies have noted the extensive daily behaviour regulation efforts by groups inspired by religious extremist ideology, such as numbers of prayers a day, hairstyles and dress code, alcohol consumption, food, engagement in leisure activities, and gatherings of mixed genders (Furlan, 2020).

Similarly, groups inspired by leftist revolutionary views often aspire to “overthrow” the established social hierarchy based on their “universal social justice ideals,” such as redistribution of land and wealth, and mobilising wider participation in political life by women and young people (Kalyvas, 2015; Suykens, 2015). These ideologies strive for “converting”

or “reforming” the population and making “enemies” out of selected groups, such as the bourgeoisie, landowners, infidels, and non-believers. Groups following these ideologies would be more interested in controlling and regulating the behaviours and social and economic interactions of the wider population and communities in areas they operate, where the employment of coercive means would be necessary when faced with non-conformers and “enemies.”

In brief, revolutionaries and religious extremists are often guided by radical progressive views of social and economic justice or fundamental extremist interpretation of religious texts. The application of these ideologies is directed at a universal population (as opposed to one limited by a certain natural ethnic heritage). The implementation of these ideas requires necessary (if not excessive) coercion to compel behavioural changes and continuous monitoring of people’s everyday social interactions. This may draw them towards more pervasive behaviour regulation schemes in areas they control, and kidnapping would be a useful technique of coercion to police those social interaction rules. Indeed, Forest (2012a) observed from the GTD kidnapping data (1970-2010) that left-wing revolutionary groups have used kidnapping more than any other ideological categories and noted the significant increase of kidnappings by religious extremist groups over the past decade. Circumstantial evidence also suggests that coercive recruitment of women and youth via kidnappings seems to be more notably associated with religious groups and revolutionary groups, since these ideologies do not “exclude” followers based on natural heritage (*see* Alsaba & Kapilashrami, 2016; Dunn, 2004; Kalyvas, 2015; Kaplan, 2009; Nnam et al., 2018).

It is therefore hypothesised that:

**Hypothesis 9:** Violent political groups inspired by left-wing revolutionary ideology are more likely to engage in kidnappings.

**Hypothesis 10:** Violent political groups inspired by religious extremist ideology are more likely to engage in kidnappings.

However, ideology may also influence groups' engagement in kidnappings via an alternative mechanism: emulation and social learning. As discussed in the earlier section on the general decision-making of violent political groups, groups learn from each other, especially through connections and allies (Horowitz, 2010; Myers, 2000; Wang & Soule, 2012). Ideological proximity may make a group more likely to "adopt" a new practice from its peers (Gilardi, 2010). This means that although a particular ideological value would not make kidnapping more or less desirable *per se*, it is possible that one would observe in the data that kidnapping appears more prevalent among groups in a certain ideology category, and possibly, an indirect effect of ideology on kidnapping through the number of allies that are already engaged in similar practices.

In addition to the factors discussed above, the current study also assumes that the number of kidnappings committed by a violent political group will be influenced by its violent operation intensity. By operation intensity, I refer to how intensive the groups have been engaged in violent political operations and confrontations. The more active and intensive a group has been engaged in violent operations, the more likely it will trigger the need and opportunities to engage in kidnappings. Therefore, I will also control for its effect in the relevant empirical analyses.

## **4.4 Method**

Analyses in this chapter aim to examine the variations *between* violent political groups in their levels of engagement in kidnappings. Specifically, I will test whether empirical data supports the hypothesised associations between the factors related to extra-legal governance (as

specified in Section 4.3) and kidnapping levels among violent political groups. Examining the between-group variations is important as it will provide valuable insights into what might explain the difference among violent political groups in their engagement in kidnappings. In particular, compared with the later analyses on within-group temporal changes in kidnappings in Chapter 5, analysing between-group changes allows me to specifically examine the effects of organisational factors that remain relatively invariant over time, such as ideology or institutional command structure. In the remainder of this section, I will first explain the sources and treatment of empirical data and then explain the specific analytical procedures employed in the analyses.

#### **4.4.1 Data**

To test the hypotheses outlined in Section 4.3, I used GTD-BAAD2, the merged dataset that includes the GTD and the BAAD2 data (*see* Chapter 2 for detailed explanations on the data sources and the merging procedures). As explained in Chapter 2, GTD-BAAD2 is an unbalanced panel dataset, containing yearly observations on the kidnapping counts (as recorded by the GTD) as well as a list of important organisational factors (from BAAD2) for 140 violent insurgent groups between 1998 and 2012 ( $N = 1,386$ ).

Both the analyses in the current chapter on the between-group variations and the analyses in Chapter 5 on the within-group temporal changes are based on GTD-BAAD2. However, an important difference is that the statistical analyses in the current chapter primarily use the yearly-average values for the time-variant measurements (including kidnapping counts, territory control) to analyse between-group variations. Chapter 5, on the other hand, uses the GTD-BAAD2 measurements in their original group-year units. In the following paragraphs, I will first explain how each measurement was coded in GTD-BAAD2 in the group-year units,

and then explain how a “collapsing” procedure was performed to take the yearly-average values for statistical analyses in the current chapter. Summary statistics for the specific variables used in the current chapter (i.e., the yearly-average values) are presented at the end.

*Kidnapping.* The level of engagement in kidnappings is the outcome variable I am interested in. GTD-BAAD2 measures the level of engagement in kidnappings by the number of kidnapping events attributed to a violent political group in a given year based on records in the GTD ( $M = 1.00$ ,  $SD = 4.72$ ,  $Min = 0$ ,  $Max = 90$ ).

The measurements of the independent variables from GTD-BAAD2 – organisational factors related to extra-legal governance, group capacity, and ideologies – are largely derived from the relevant BAAD2 measures.

*Territory Control.* Territory control is a binary variable that measures whether an organisation is able to “control movement into, out of, or within a given territory” of a substantial area for an extended time (1= yes, 0 = no, BAAD2 Codebook, p.7). This excludes the situation where a violent political group took control of only a few blocks of buildings or temporary seizure of a town for less than a week (Asal et al., 2019; BAAD2 Codebook).

*External Sponsorship.* For the effects of external sponsorship, I used the state-sponsorship variable in BAAD2, a binary variable that captures whether an organisation is known to receive direct financial support from an external sovereign state in a given year (1= yes, 0 = no, BAAD2 Codebook). Although this would not account for the external support from international diaspora and NGOs due to the limitation of available data, state sponsorship is often considered the most substantial source of external influence (Asal et al., 2019, Staniland, 2012).

*Provision of Social Services.* Provision of social services is measured in BAAD2 as a binary variable based on whether an organisation provides any healthcare, welfare, education, infrastructure or other services for the public in the local area in a given year (1= yes, 0 = no, BAAD2 Codebook).

*Illicit Market Financing.* Illicit market financing is measured with a binary variable based on the relevant BAAD2 measures on whether an organisation has engaged in extortion, smuggling or drug-trafficking (1= yes, 0 = no). An organisation is coded in BAAD2 as having engaged in extortion if it systematically collects money or supplies from local businesses and communities through threat of violence, sometimes termed “revolutionary tax” or “donations” by the relevant groups (BAAD2 Codebook p.8, *see also* Asal et al., 2019). Engagement in smuggling is coded in BAAD2 regarding whether an organisation is known to have illegally transported products (drugs excluded and coded separately) or people across regional borders to make a profit (BAAD2 Codebook), most commonly involving arms-trafficking, human-trafficking or the transportation of daily consumption goods like cigarettes (Asal et al., 2019). An organisation is coded as having engaged in drug-trafficking if it is known to have taken part in any chains of the illicit drug businesses, such as growing, production, transportation, and distribution (Asal et al., 2019; BAAD2 Codebook).

*Membership Size.* Membership size is a categorical variable coded on an ordinal scale based on the approximate number of members in the organisation (1 = unknown/0-100, 2 = 100-999, 3 = 1,000–9,999; 4 = 10,000 or more, *see* BAAD2 Codebook, p.6).

*Network Connectivity.* Network connectivity was measured by the number of allies the organisation has that engaged in criminal activities in the previous year (*Min* = 0, *Max* = 10, BAAD2 Codebook, p.9). Limiting the counting of allies to only those that had already engaged

in criminal activities was intended by the BAAD2 team to specifically account for the possible “diffusion” effects of illicit financing methods among violent political groups (Asal et al., 2019, p.403).

*Hierarchical Command Structure.* Hierarchical command structure was also coded as a binary variable based on whether the group is organised in a vertical chain of command where the higher-level leader has the superior power to make decisions (1 = hierarchical, 0 = not hierarchical, *see* BAAD2 Codebook, p.7).

*Ideologies.* To account for the effect of left-wing revolutionary ideology and religious extremist ideology on kidnappings, I used the relevant BAAD2 measures on violent groups’ ideological orientation. The BAAD2 team developed a binary coding system for both left-wing and religious ideology (1 = adherence to the ideology, 0 = non-adherence to the ideology). The coding was based on the relevant statements by the violent political groups and the relevant literature on the groups’ policies and beliefs (Asal et al., 2019, p.403). An organisation is coded “1” for left-wing ideology if it “promotes economically leftist policies such as redistribution of wealth by the government and nationalisation of industry” and are often communist or socialist groups, like FARC, Communist Party of India – Maoist (BAAD2 Codebook, p.6). An organisation is coded as “1” for religious ideology if it is “guided by some form of religious principles... may seek to incorporate religious policies into public life or exist to protect a distinct religious group” (BAAD2 Codebook, p.6). Notable examples include the LRA, ISIS, and Al-Qa’ida.

*Operation Intensity.* To control for the varying levels of operation intensity – defined as “how intensive the groups have been engaged in violent political operations overall” for the current study – I used the BAAD2 “battlefield death” variable as a proxy measure, which is



coded as the “number of deaths the organisation inflicted in battle” for a given year, derived from the UCDP data (*Min* = 0, *Max* = 14,716, BAAD2 Codebook, p.8).

Since the current step of the analysis concerns the between-group differences in kidnapping activities among violent political groups, I collapsed the unbalanced panel data from the GTD-BAAD2 to take the average values of yearly observations that belong to the same group. This results in a cross-sectional dataset for 140 violent political groups on their averaged kidnapping counts (i.e., the dependent variable), as well as the other organisational factors serving as the independent variables in my analysis. Key features and descriptive statistics for these variables before and after the collapsing are summarised in Table 4.2.

Although the averaged values from the collapsing procedure are no longer in their naturally meaningful forms (e.g., integers for kidnapping counts or battlefield death counts), they provide a useful set of numerical estimates on how much the violent political groups have retained the relevant organisational characteristics despite their varying lengths of operational years. For example, a group in existence for nine years during the observation period of BAAD2 with six years of territory control would have an estimated score of 0.67, similar to a group operating for six years and controlling territory for four years. Moreover, since the binary coding of “1” versus “0” for the ideology variables almost always remains constant for the same organisation, the post-collapsing averaged score for an organisation would be the same as each of the group-year observations.<sup>14</sup> Thus the respective ideology mean scores of

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<sup>14</sup> The only exception is the Free Aceh Movement (GAM), an ethnic separatist group seeking independence in the Aceh region of Indonesia, so it was coded “1” for ethno-separatist ideology from

the 140 violent political groups reported in Table 4.2 effectively represent the percentages of organisations that follow the relevant ideology. For example, 48 among the total of 140 BAAD2 groups followed religious ideology (34%), and 24 followed leftist ideology (17%).

**Table 4.2**

*Descriptive Statistics for Key Organisational Factors: Pre and Post Collapsing GTD-BAAD2*

	Theoretical Construct	Source	Pre-collapse Data Types	Post-collapse		
				Mean	SD	Range
Kidnapping	Coercive Control	GTD	Count	1.07	3.08	0 - 22.56
Territory control <sup>a</sup>	Extra-legal	BAAD2	Binary	0.30	0.37	0 - 1
State sponsor	Governance	BAAD2	Binary	0.08	0.22	0 - 1
Social services	(Preconditions and activities)	BAAD2	Binary	0.11	0.26	0 - 1
Illicit financing		BAAD2	Binary	0.25	0.34	0 - 1
Membership size		BAAD2	Ordinal	2.69	0.69	1 - 4
Network connectivity	Group Capacity	BAAD2	Count	0.37	0.72	0 - 5.36
Hierarchical command		BAAD2	Binary	0.77	0.42	0 - 1
Leftist	Ideology	BAAD2	Binary	0.17	0.38	0 - 1
Religious		BAAD2	Binary	0.34	0.47	0 - 1
Battlefield Death	Operation Intensity	BAAD2 UCDP	Count	311.41	856.98	1.67 - 7,779

*Note.* Pre-collapsing: *N* (group-years) = 1,386. Post-collapsing: *N* (groups) = 140. <sup>a</sup> Territory control is simultaneously a group capacity factor that would make kidnapping logistically easier and less risky to implement.

1998 to 2012 in BAAD2. However, the group was also noted to use Islamic cause to justify its fights on and off, responding to the changing political environment. BAAD2 coded GAM as following religious ideology only between 2010 and 2012, resulting in 0.2 averaged score in religious ideology.

#### **4.4.2 Analytical Procedure**

My analytical approach can be summarised in three steps. First, I conducted descriptive analyses using the GTD-BAAD2 data to examine the patterns of distribution for each group's engagement in kidnappings. A comparison of mean scores in key organisational features was conducted for three subsets of groups: 1) “no kidnapping” groups – those that have never engaged in any kidnappings ( $N\_kidnap\_average = 0$ ); 2) “occasional kidnapping” groups – those that have less than two kidnappings per year during their years of active operation ( $N\_kidnap\_average < 2$ ); and 3) “frequent kidnapping” groups – those that commit two or more kidnappings per year on average during their years of active operation ( $N\_kidnap\_average \geq 2$ ).

Second, a series of block-wise multiple linear regression (MLR) models were performed to examine the respective effects of independent variables related to extra-legal governance, group capacity and ideology on groups' kidnapping counts while keeping operational intensity controlled. Notably, both the dependent variable “kidnapping count” and the control variable “battlefield death” are highly skewed by a few instances of particularly high counts (*skewness* = 4.73 and 5.89, respectively). Log-transformation was performed following recommendations by Ali and Shook (1980) and Bland and Altman (1996), which reduced the *skewness* to 2.28 for kidnapping and 0.16 for battlefield death.

Diagnostic analyses were conducted after the initial round of block-wise MLRs. As many of the independent variables are correlated, variance inflation factor scores (VIF) were calculated to check for multicollinearity, which could cause model instability problems (O'Brien, 2007). Among all independent variables, territory control has the highest VIF score of 1.87, well under the commonly used “rule of thumb” threshold value at 10 to raise concerns

(see O'Brien, 2007). A visual inspection of residuals suggests moderate conformity to a normal distribution (*skewness* = 0.81). However, the variance of residuals showed patterns of heteroskedasticity – residuals getting larger as the fitted values increase. A Breusch-Pagan/Cook–Weisberg test was performed using the “hettest” command in Stata 15.1. The null hypothesis of constant variance of residuals along with fitted values was rejected at a significant level  $p < .001$ . As a result, I used the “vce (robust)” option in Stata 15.1 to obtain the robust standard errors that were unbiased in the presence of heteroskedasticity (White, 1980). To identify potential outliers and highly influential observations, I also calculated the Cook’s Distance and DFBETAS. Both measures point to Al-Qai’da as an outlier, causing substantial changes to the regression results for the “network connectivity” variable (*Cook’s D* = .84. *DFBETA for network connectivity* = -2.95, much higher than even the most relaxed cut-off threshold at 1, see Bollen & Jackman, 1985; Cook, 1977). Notably, Al-Qai’da has the single highest score of 5.36 for “network connectivity,” almost twice the score for the second-highest group Tehrik-i-Taliban Pakistan (TTP) at 3.00 – the mean score for the variable is a modest 0.37 (see Table 4.2). Results of regression analysis with and without Al-Qai’da are both presented (see Table 4.5). Further sensitivity analyses were also conducted by including a categorical variable controlling for general contextual effects of different geographical regions.<sup>15</sup> None of the regional categories were tested significant and the results for other variables were almost identical with those presented in Table 4.5.

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<sup>15</sup> While the 140 groups sampled in the analyses covered nine different geographic regions, 130 of the groups (92.9%) are based in four regions: Middle East and North Africa, Sub-Saharan Africa, South Asia and Southeast Asia. As a result, the categorical variable controlling for geographic regions contains five categories covering the four major regions and a fifth category “others.”

In the final step, I examined the covariance structure of the independent variables by fitting a path model to explore the possible indirect effects for a number of independent variables on kidnappings. The “SEM” command in Stata 15.1 was used to implement the path analysis. This is a logical follow-up from the MLRs, where multiple independent variables that have significant bivariate associations with kidnappings no longer show any significant effects in the MLRs when effects of other variables are controlled (*see* block-wise regression results in Table 4.5), suggesting possible mediation effects that warrant further investigation (Edwards & Lambert, 2007). For example, territory control and membership size no longer have significant direct effects on kidnappings once all the other variables are included, despite numerous studies suggesting the important role they play in influencing groups’ decisions to engage in kidnappings (Asal et al., 2019; Forest 2012b). Path analysis allows me to specify and test possible theoretical pathways under which territory control and membership size could indirectly influence kidnappings via other organisational factors. For instance, territory control is often considered a precondition to implementing any forms of governance and control of the local population, such as regularised extortion rackets on local businesses and individuals, enforcing community rules on public gatherings in accordance with religious teaching (*see* Förster, 2015; Kasfir, 2015; Mampilly, 2011; Stewart, 2016), which could then lead to the use of kidnapping as a coercive enforcement tool. A larger membership size enables higher operational intensity, which could then lead to a higher number of kidnappings observed in the data. In addition, the path model also tested the possible indirect effects of ideology on kidnappings via connectivity to allies with prior criminal engagement, as would be hypothesised under a social learning and diffusion theory (*see* prior theoretical discussions under 4.3.3).

## 4.5 Results

### 4.5.1 *Frequent Kidnapping, No Kidnapping, and Those in Between*

The distribution of kidnappings committed by the 140 groups in the GTD-BAAD2 data is marked by a small number of groups with particularly high kidnapping counts. Notably, 1,201 of the total of 1,389 kidnapping incidents in the GTD-BAAD2 data (86.4%) were committed by only 20 of the most frequent kidnapping groups, with a striking range of total kidnappings committed from 10 to 230 (*see* Table 4.4 at the end of this section for a list of these top 20 groups and their total kidnapping counts with a summary of their key organisational features).

Among the 140 violent political groups recorded in GTD-BAAD2, almost half (47%) had not engaged in *any* kidnappings ( $N = 66$ ). Meanwhile, among the 74 groups that had ever engaged in kidnappings, only 19 committed two or more per year during their years of operation, as recorded in GTD-BAAD2. I tentatively call these the “frequent kidnapping” groups. On the other hand, the remaining 55 groups were engaged in kidnappings only occasionally, committing fewer than two kidnappings per year during their years of operation observed in GTD-BAAD2. I tentatively call these the “occasional kidnapping” groups. The mean scores on the key organisational features for these three subsets of groups – the “no kidnapping” groups ( $N = 66$ ), the “occasional kidnapping groups” ( $N = 55$ ), and the “frequent kidnapping” groups ( $N = 19$ ) – are summarised in Table 4.3 and visualised in Figure 4.1.

**Table 4.3**

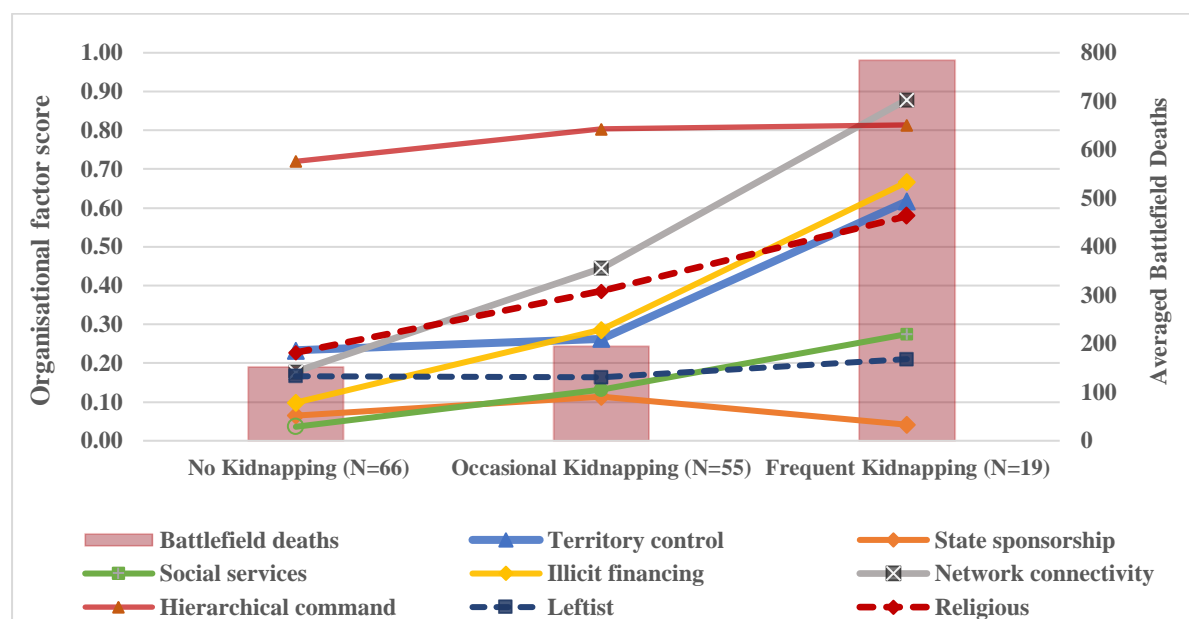
*Comparison of Mean Scores (of Key Organisational Factors) for Groups with No Kidnapping, Occasional Kidnappings and Frequent Kidnappings*

	No Kidnapping (N=66)	Occasional Kidnapping <sup>a</sup> (N=55)	Frequent Kidnapping <sup>b</sup> (N=19)	All (N=140)
Territory control	0.23	0.26	0.62	0.30
State sponsorship	0.07	0.11	0.04	0.08
Social services	0.04	0.13	0.27	0.11
Illicit financing	0.10	0.29	0.67	0.25
Membership size	2.71	2.60	2.88	2.69
Network connectivity	0.18	0.45	0.88	0.37
Hierarchical command	0.72	0.80	0.81	0.77
Leftist	0.17	0.16	0.21	0.17
Religious	0.23	0.39	0.58	0.34
Battlefield deaths	152	195	784	311

*Note.* GTD-BAAD2 merged data. <sup>a</sup> “Occasional kidnapping” groups are those that commit fewer than two kidnappings per year by average during their observed period of operation in GTD-BAAD2. <sup>b</sup> “Frequent kidnapping” groups are those that commit two or more kidnappings per year by average during their observed period of operation in GTD-BAAD2.

**Figure 4.1**

*Comparison of Mean Scores (of Key Organisational Factors) for Groups with No Kidnapping, Occasional Kidnappings and Frequent Kidnappings*



*Note.* GTD-BAAD2 merged data. “Occasional kidnapping” groups are those that commit fewer than two kidnappings per year by average during their observed period of operation in GTD-BAAD2. “Frequent kidnapping” groups are those that commit two or more kidnappings per year by average during their observed period of operation in GTD-BAAD2.



As Figure 4.1 shows, all organisational factors, except for state sponsorship and leftist ideology, display a notable upward trend, of varying degrees, in their mean scores as groups' levels of engagement in kidnappings moves up to the next level. The scores indicate a likely positive association between these organisational factors with groups' level of engagement in kidnappings as I hypothesised. In particular, battlefield deaths, network connectivity, illicit financing, territory control and religious ideology appear to have the largest positive associations with changes in kidnapping levels. Moreover, patterns of changes in mean scores of the relevant organisational traits suggest that the "occasional kidnapping" groups are much more similar to the "no kidnapping" groups than the "high kidnapping" groups. Most of the organisational factors witnessed a much more substantial change from the "occasional kidnapping" groups to the "frequent kidnapping" groups than from the "no kidnapping" groups to the "occasional kidnapping" groups.

Finally, different organisational factors displayed very different levels of overall prevalence and patterns of change among the three subsets of 140 violent political groups in GTD-BAAD2. Hierarchical command structure is highly prevalent among the groups in general ( $M = 0.77$ ). Meanwhile, state sponsorship, provision of social services and leftist ideology have a much lower overall prevalence and less noticeable changes in their mean scores among the three subsets of groups. Notably, "state sponsorship" is almost non-existent among the "frequent kidnapping" groups with a mean score of 0.04 (*see* also Table 4.4, which shows that Al Shabaab is the only one of the top 20 groups in overall kidnapping counts to have ever received any state sponsorship).

**Table 4.4**

*Descriptive Statistics for the Top 20 Groups with the Highest Overall Kidnapping Counts: GTD-BAAD2 1998-2012*

	Home-base Country	Kidnapping Total	Kidnapping Yearly Average	Years Observed	Ideology
Taliban	Afghanistan	233	15.53	15	reli
Communist Party of India - Maoist (CPI-M)	India	203	22.56	9	left
Revolutionary Armed Forces of Colombia (FARC)	Colombia	136	9.07	15	left
Tehrik-i-Taliban Pakistan (TTP)	Pakistan	100	16.67	6	reli
Al-Shabaab	Somalia	92	13.14	7	reli
National Liberation Army of Colombia (ELN)	Colombia	78	5.20	15	left
Abu Sayyaf Group (ASG)	Philippines	65	4.33	15	reli
Lord's Resistance Army (LRA)	Multi <sup>a</sup>	36	2.40	15	reli-ethn
Kurdistan Workers' Party (PKK)	Turkey	34	2.27	15	left, ethn
Islamic State of Iraq and al Sham (ISIS)	Syria, Iraq	28	3.11	9	reli
Liberation Tigers of Tamil Eelam (LTTE)	Sri Lanka	28	2.33	12	ethn
National Liberation Front of Tripura (NLFT)	India	27	1.80	15	ethn
Al-Qa'ida in the Lands of the Islamic Maghreb (AQLIM)	Algeria	25	4.17	6	reli
Moro Islamic Liberation Front (MILF)	Philippines	24	1.60	15	reli-ethn
Al-Qa'ida in the Arabian Peninsula (AQAP)	Yemen	19	4.75	4	reli
National Union for the Total Independence of Angola (UNITA)	Angola	19	1.27	15	left
Salafist Group for Preaching and Fighting (GSPC)	Algeria	16	1.78	9	reli
Lashkar-E-Islam (Pakistan)	Pakistan	15	1.67	9	reli
Garo National Liberation Army	India	13	3.25	4	ethn
National Democratic Front of Bodoland (NDFB)	India	10	0.67	15	ethn

(Continued) Descriptive Statistics for the Top 20 Groups with the Highest Overall Kidnapping Counts: GTD-BAAD2 1998-2012

	Territory Control	State Sponsor	Social Service	Illicit Financing	Member Size	Network Connectivity	Hierarch Command
Taliban	1	0	1	1	3.53	2.21	1
Communist Party of India - Maoist (CPI-M)	0.33	0	0.3	0.44	3.11	1.38	1
Revolutionary Armed Forces of Colombia (FARC)	1	0	0.1	1	3.8	0.64	0
Tehrik-i-Taliban Pakistan (TTP)	1	0	0.3	0.67	3.83	3	1
Al-Shabaab	0.71	0.29	0.9	0.57	2.57	1.67	1
National Liberation Army of Colombia (ELN)	0.93	0	0	0.87	3	0.64	1
Abu Sayyaf Group (ASG)	0.53	0	0	1	2.13	1.14	0.47
Lord's Resistance Army (LRA)	0	0	0	0.6	3	0	1
Kurdistan Workers' Party (PKK)	0.60	0	0.1	0.47	3	0.07	1
Islamic State of Iraq and al Sham (ISIS)	0.78	0	0	0.89	3	0.88	1
Liberation Tigers of Tamil Eelam (LTTE)	0.92	0	0.2	0.67	3	0	1
National Liberation Front of Tripura (NLFT)	0.07	0	0	0.07	2	0.07	1
Al-Qa'ida in the Lands of the Islamic Maghreb (AQLIM)	0.67	0	0.3	1	2	1.2	1
Moro Islamic Liberation Front (MILF)	0	0	0.5	0.27	3.87	1.36	1
Al-Qa'ida in the Arabian Peninsula (AQAP)	0.75	0	0.5	0.5	2.75	1.67	1
National Union for the Total Independence of Angola (UNITA)	0.27	0	0	0	3.2	0	1
Salafist Group for Preaching and Fighting (GSPC)	0	0	0	0.33	2.11	0.38	1
Lashkar-E-Islam (Pakistan)	0.67	0	0.3	0.44	4	0.13	1
Garo National Liberation Army	0	0	0	1	1	0.33	1
National Democratic Front of Bodoland (NDFB)	0	0	0	0.67	2.8	0.86	1

Note. <sup>a</sup> Lord's Resistance Army had its home base in different countries over the years, including Sudan, Uganda, D.R. Congo, and Central African Republic.

#### ***4.5.2 Multiple Linear Regression Models of Kidnappings by Violent Political Groups: Extra-legal Governance, Group Capacity and Ideology***

To test my hypotheses under the theoretical framework of kidnapping as a function of extra-legal governance, a series of block-wise MLR was performed while controlling for battlefield deaths (as a proxy for operational intensity). I started with a base model by including only group capacity variables that would make kidnapping easier or less risky from a rational strategic perspective: territory control, membership size, network connectivity and hierarchical command (Model 1). I then added the independent variables related to extra-legal governance for Model 2, which includes social service provision, illicit market financing, state funding (noting that territory control was already included in Model 1 for its hypothesised effect on kidnapping by making it easier to implement). In Model 3, I further added leftist ideology and religious ideology. Additionally, Model 4 was run by excluding Al-Qai'da as an outlier from Model 3. Results are presented in Table 4.5.

The base model of group capacity factors (Model 1) explained a good proportion of variance in kidnappings ( $R^2 = .36$ ,  $F [5, 134] = 8.71$ ,  $p < .001$ ). However, despite having a significant bivariate correlation with kidnapping, membership size was already nonsignificant in this step (with territory control, network connectivity and battlefield death controlled). In Model 2, the initial effects of territory control found in Model 1 disappeared once variables related to extra-legal governance were included, which also resulted in a significant improvement of model fit ( $R^2 = .46$ ,  $F [8, 131] = 6.75$ ,  $p < .001$ ). The additional inclusion of religious ideology and leftist ideology in Model 3 did not result in any significant changes to the results. Neither of the ideology variables was found to be significant when other organisational factors were controlled. However, the exclusion of Al-Qai'da significantly

improved the variance explained in Model 4 ( $R^2 = .52$ ,  $F [10, 128] = 8.18$ ,  $p < .001$ ), which is the best-fitting model among the four.

**Table 4.5**

*Block-wise Multiple Linear Regression Analysis Results: Predictors of Between-group Differences in Mean Kidnapping Frequency Per Year*

	Bivariate Correlation	Model 1	Model 2	Model 3	Model 4 (Excl. Outlier)
	<i>r</i>	<i>B</i> ( <i>SE</i> )	<i>B</i> ( <i>SE</i> )	<i>B</i> ( <i>SE</i> )	<i>B</i> ( <i>SE</i> )
Territory control	.39***	0.36* (.16)	0.11 (.14)	0.16 (.14)	0.11 (.14)
Membership size	.17*	0.02 (.07)	0.02 (.06)	-0.00 (.06)	0.01 (.06)
Network connectivity	.38***	0.30* (.14)	0.19 (.14)	0.17 (.15)	0.37** (.13)
Hierarchical command	.09	0.10 (.09)	0.07 (.09)	0.06 (.09)	0.06 (.09)
State sponsorship	-.05	--	-0.46* (.21)	-0.46* (.20)	-0.41* (.19)
Social services	.37***	--	0.43 (.28)	0.42 (.28)	0.31 (.25)
Illicit financing	.49***	--	0.54*** (.17)	0.49** (.17)	0.48** (.17)
Religious ideology	.25**	--	--	0.09 (.12)	0.01 (.12)
Leftist ideology	.06	--	--	0.18 (.14)	0.15 (.13)
Battlefield deaths	.47***	0.10*** (.02)	0.09*** (.02)	0.09*** (.02)	0.10*** (.02)
$R^2$		.36	.46	.47	.52

*Note.* N (groups) = 140, <sup>†</sup>  $p < .10$ , \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p \leq .001$ . Robust standard errors were used to correct for heteroskedasticity.

In Model 4, significant positive effects on the numbers of kidnappings committed by violent political groups were found in groups' engagement in illicit market financing ( $B = .48$ ,

$SE = .17$ , 95% CI [ .14, .82]), network connectivity ( $B = .37$ ,  $SE = .13$ , 95% CI [ .12, .62]), as well as the control variable, battlefield deaths ( $B = .10$ ,  $SE = .02$ , 95% CI [ .06, .15]). State sponsorship was found to be negatively associated with kidnapping when the effects of other variables were controlled ( $B = -.41$ ,  $SE = .19$ , 95% CI [-.78, -.04]), consistent with my hypothesis.

### ***4.5.3 Exploring the Indirect Effects of Territory Control, Membership Size, Social Services and Ideology on Kidnappings via Path Analysis***

As Table 4.5 shows, several organisational factors hypothesised to influence groups' engagement in kidnappings were not significant in the MLRs, despite having positive bivariate correlations with kidnappings: membership size, territory control, social services and religious ideology. This indicates possible mediation effects, where the mediated variables have an indirect effect on kidnappings via other variables (Preacher & Hayes, 2004). To explore these potential structural relationships, I examined the inter-correlations among the relevant independent variables as summarised in Table 4.6 below.

**Table 4.6**

#### *Intercorrelation among Selected Independent Variables*

	1	2	3	4	5	6	7
1. Territory control	--						
2. Illicit financing	.40***	--					
3. Social service	.43***	.29***	--				
4. Membership size	.34***	.08	.22*	--			
5. Battlefield death	.53***	.24**	.36***	.39***	--		
6. Religious ideology	.00	.22**	.28***	-.11	.11	--	
7. Network connectivity	.02	.32***	.20*	-.08	.13	.46***	--

*Note.* N (groups) =140, <sup>†</sup>  $p < .10$ , \*  $p < .05$ , \*\* $p < .01$ , \*\*\* $p \leq .001$ .

There are several viable pathways that may explain the observed inter-correlations, to be tested with a path analysis.

First, territory control, as a precondition to establish extra-legal governance, is positively associated with the provision of social services ( $r = .43, p < .001$ ) and the regulation and participation in illicit market financing ( $r = .40, p < .001$ ). It could be that territory control has an indirect effect on kidnapping via social service provision and illicit market financing, which then leads to the use of kidnappings as a coercive enforcement tool. Since the block-wise MLR also indicated a possible mediation effect on social service provision, one possibility is that kidnapping is mainly used to enforce the illicit financing schemes rather than for the provision of social services, but the provision of social services would necessitate more resources and funding extraction through illicit market financing.

Second, territory control and membership size, as two of the most important indicators of general group capacity, might indirectly influence kidnapping via their positive association with higher operation intensity. The latter would then result in a higher-than-average number of kidnappings committed (per year). Bivariate correlations with operation intensity (measured by battlefield deaths as a proxy) are consistent with this hypothesis ( $r = .53, p < .001$  for territory control and  $r = .39, p < .001$  for membership size).

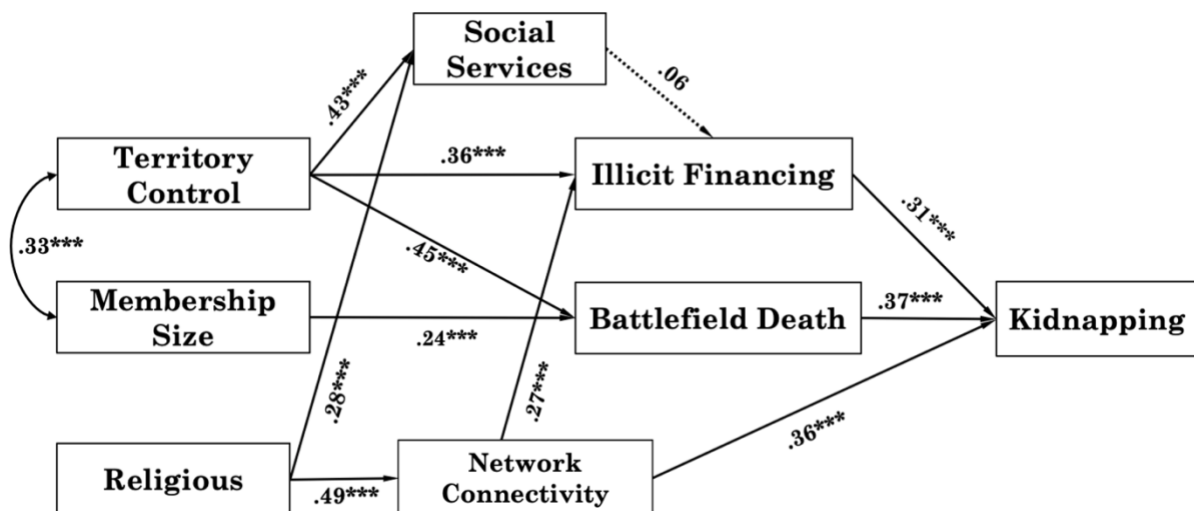
Third, religious ideology might indirectly influence kidnapping through its positive association with network connectivity ( $r = .46, p < .001$ ), which could then influence groups' engagement in kidnappings through the social learning and diffusion process. In addition, since network connectivity is measured specifically based on the number of connections to those already engaged in criminal behaviours, it will likely also have a separate effect on illicit market financing ( $r = .32, p < .001$ ) and indirectly influence kidnappings. Another pathway that might

connect religious ideology to kidnapping is social service provision. As previously discussed, religious groups are more likely to adopt a more extensive and encompassing governance scheme to regulate everyday civilian life in their territories, which might make the provision of social services more likely (bivariate correlation between religious ideology and social service provision:  $r = .28, p < .001$ ).

Figure 4.2 provides a visual illustration of the structure diagram for the path model specified above and presents the relevant estimation results (standardised coefficients with significant levels). A chi-square test indicates that the model specified was not significantly different from the covariance structure observed in the data ( $\chi^2 = 14.3, df = 14, p = .429$ ). Other commonly used fit statistics also indicate a good model fit (CFI = .999; RMSEA = .012, 90% CI [.00, .08],  $p = .727$ ; SRMR = .060; CD = .64).

**Figure 4.2**

*Path Model for the Indirect Effects of Territory Control, Social Service Provision, Membership Size and Religious Ideology on Kidnappings*



*Note.* N (groups) = 139,  $^{\dagger} p < .10$ ,  $* p < .05$ ,  $** p < .01$ ,  $*** p \leq .001$ .  $\chi^2 (14) = 14.3, p = .43$ ; CFI = .999; RMSEA = .012, 90% CI [.00, .08],  $p = .727$ ; SRMR = .060; CD = .64.



As Figure 4.2 shows, all the specified pathways were found to be significant, except for the direct effect of social services provision on kidnapping. Table 4.7 summarises the standardised coefficients for both direct and indirect effects on kidnapping estimated in the path model. These results confirm my hypotheses on how territory control, membership size, religious ideology and network connectivity may have indirect effects on kidnapping through other organisational factors. Specifically, territory control was indirectly linked to kidnapping through the provision of social services (nonsignificant), illicit market financing and battlefield deaths ( $\beta = .29$ ,  $SE = .05$ , 95% CI [.19, .39]). Membership size had a small indirect effect on kidnapping through battlefield deaths ( $\beta = .09$ ,  $SE = .03$ , 95% CI [.03, .15]). Religious ideology was found to be indirectly linked to kidnapping via social service provision (nonsignificant) and network connectivity ( $\beta = .22$ ,  $SE = .05$ , 95% CI [.13, .31]). Network connectivity also had a small indirect effect on kidnapping through illicit market financing ( $\beta = .08$ ,  $SE = .03$ , 95% CI [.03, .14]) in addition to its direct effect on kidnapping.

**Table 4.7**

*Path Coefficients for Organisational Factors on Kidnappings*

	Effects		
	Indirect	Direct	Total
Territorial control	0.29***		0.29***
Illicit financing		0.31***	0.31***
Social services	0.02		0.02
Membership size	0.09**		0.09**
Battlefield death		0.37***	0.37***
Religious ideology	0.22***		0.22***
Network connectivity	0.08**	0.36***	0.44***

*Note.* N (groups) = 139, <sup>†</sup>  $p < .10$ , \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p \leq .001$ .

## 4.6 Discussion and Conclusions

This chapter set out to examine variation among violent political groups in their levels of engagement in kidnappings, and the extent to which this variation can be explained by organisational factors related to extra-legal governance, group capacity and ideological orientations. Initial analyses of key organisational factors of violent political groups showed that, at least for some organisational characteristics, there were greater differences between “frequent” kidnapping groups and “occasional” kidnapping groups than between groups that never kidnapped and those who only kidnapped occasionally (*see* Figure 4.1). This initial finding suggests the importance of examining group differences in kidnappings not merely as a dichotomous yes/no characteristic (as is the case for most previous studies, e.g., Asal et al., 2019; Forest, 2012b), but, rather, to consider the full range of variation in kidnapping activity.

The block-wise MLRs, combined with the path analysis, yield several important findings. Prior studies have found that factors related to group capacity, such as territory control, group size and the number of allies, were significantly associated with engagement in kidnappings (Asal et al., 2019; Forest, 2012b). Results from my MLRs are consistent with these findings in the sense that the basic model with only group capacity factors (territory control, membership size, network connectivity, hierarchical command structure and operational intensity) was found to explain 36% of the kidnapping variance in the present sample. However, once I included factors related to extra-legal governance – provision of social services, illicit market financing (extortion, smuggling and drug trafficking), and state sponsorship – the model fit substantially improved, as indicated by the significant F-test statistics and an increased variance explained at 46%. More importantly, the effect of territory control was no longer significant. This suggests that the association between territory control and kidnappings is mediated through mechanisms related to governance.

Subsequent analyses further examined possible causal mechanisms using path analyses. The path analyses suggested that territory control may be associated with levels of kidnapping through two possible mechanisms. In particular, territory control is associated with higher levels of illegal market financing and a greater intensity of operations, both of which, in turn, are associated with more kidnapping. This finding lends support to the “extra-legal governance” argument that merely seizing territories (and therefore making kidnapping logistically easier and less risky) does not explain groups’ engagement in the kidnapping practice. Rather, it is what the groups later decide to do with the territory that matters – whether they need to exert coercive control to regulate the behaviours of the local population in different spheres of social economic life. This is also consistent with previous observations from Ajorna and colleagues (2015) on the preconditions and varying forms of governance provided by violent political groups, as well as Gilbert’s (2020b) observation in Colombia where kidnappings were used by FARC and ELN as a coercive enforcement tool to impose a “revolutionary tax” on local businesses and individuals.

The negative effect of state sponsorship on kidnapping found in the MLR models may also be seen as corroborating the extra-legal governance explanation.<sup>16</sup> Violent political groups financially or militarily supported by external states engage less in kidnappings – this is consistent with the extra-legal governance explanation that groups with abundant funding and support to finance their combat operations may have less need to pursue a coercive extraction

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<sup>16</sup> Alternative explanations may also explain the observed negative association, for example, states that sponsor violent political actors in other states may not want to be seen as supporting criminal acts like kidnappings.

scheme and govern the local population. Interestingly, state sponsorship did not show a significant bivariate correlation with kidnapping. This might be a result of “suppression effect” (MacKinnon et al., 2000), where the negative effect of state sponsorship on kidnapping could be offset by its association with other confounders that would influence kidnapping in an opposite direction (such as territory control, provision of social services), and would only show when the confounders were controlled in the MLRs.

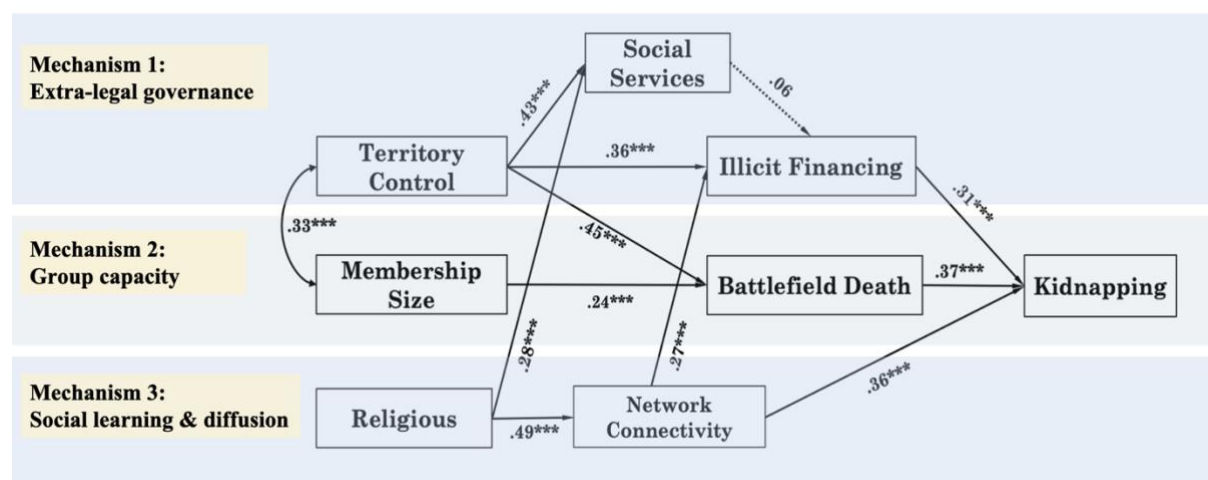
Having said the above, the use of kidnappings as a coercive tool to enforce extra-legal governance is not the only causal pathway my models have suggested. Although the MLRs did not find direct effects for group capacity factors like membership size and territory control (unlike prior studies like Asal et al., 2019; Forest, 2012b), the path model found support for an indirect effect through operation intensity. More specifically, the models suggest that group capacity factors like membership size and territory control may lead to a larger number of kidnappings because group capacity allows them to increase their operation intensity – to generally engage in a higher number of attacks.

The MLRs did not find direct effects of ideology on kidnappings, consistent with prior studies on ideology and kidnappings (Forest, 2012b). However, the path model found that religious ideology could indirectly influence kidnapping counts through its positive association with network connectivity, as shared religious beliefs and identity provide a natural solid foundation of trust and shared goals to form alliances across borders and ethnic groups (Asal et al., 2016). This indirect pathway through network connectivity supports a diffusion explanation of groups’ engagement in kidnapping via social learning and skills-acquiring from allies.

As illustrated in Figure 4.3 below, the three major pathways discussed above can be seen as a tentative exploration of the separate causal mechanisms under which different organisational factors can influence groups' engagement in kidnappings. Results from my path analysis provided support to all three: 1) kidnapping as a coercive enforcement tool to exert extra-legal governance and control of the local population; 2) kidnapping as a function of higher operation intensity, enabled by a higher level of group capacity and resources; and 3) kidnapping as a result of social learning and emulation of allies. Although these three processes are separate in their causal mechanisms, they are interconnected by a few factors that can influence more than one of the mechanisms. For example, territory control could influence both the extra-legal governance mechanism and the group capacity mechanism; network connectivity could influence both the social learning process and the extra-legal governance process. These findings highlight the need for any future research to carefully specify the theoretical pathways being tested in the model and pay attention to the complexity of structural relationships among different aspects of organisational factors.

**Figure 4.3**

*Tentative Causal Mechanisms and Pathways Identified in the Path Model*



However, it is also important to note that several organisational factors that I expected to have a direct or indirect effect on kidnappings were not tested significant, including social service provision, hierarchical command structure, and leftist ideology. In particular, the provision of social services was not significant in the MLRs despite having a significant positive correlation with kidnapping counts. Nor was it significant in the path model as one step of the extra-legal governance mechanism indirectly influencing kidnapping through illicit market financing. This is an important finding, as social service provision is one of the key aspects of the extra-legal governance theoretical construct. On the one hand, this might be construed as corroborative evidence for Gilbert's (2020b) argument that kidnapping is mainly used to enforce illicit financing schemes, but not so much to enforce rules and orders for public social services as I hypothesised. On the other hand, it could also be a result of the small sample size of only 140 groups contained in GTD-BAAD2 and the relatively small variance of the variable (especially after the collapsing procedure), which makes it difficult to detect an effect.

One notable limitation of the current study is that I was limited to the secondary data available in the public domain that can be combined for analyses in a sensible way. For the current study, I combined the GTD with BAAD2, and the independent variables included in the regression models only measure characteristics of violent political groups. However, the models did not include any variables directly measuring the characteristics of the states where the group are based, such as state capacity, which may influence groups' decision to engage in kidnappings. Although group-level characteristics measured and tested in this chapter – such as territory control, provision of public social services, engagement in organised forms of criminal financing activities, sizable membership – are often indicators of the strength or

weakness of the states<sup>17</sup>, it is not entirely clear how robust they are as proxies to state capacity. Where possible, future studies on this topic should consider including more direct measures controlling for state capacity and see how they influence the analyses. While datasets like the *Fragile States Index* (n.d.) by the Fund for Peace and the *Rule of Law Index* (n.d.) by the World Justice Project are available and provide some quality estimates on the different aspects of state capacity, I did not include them in the current study because the time periods they covered did not match those of the GTD-BAAD2 (i.e., 1998 to 2012). The *Fragile States Index* are available only since 2006 and the *Rule of Law Index* since 2008. One option is to reduce the year-span of GTD-BAAD2 observations to match those of the *Fragile States Index* or the *Rule of Law Index* (i.e., 2006 to 2012 or 2008 to 2012). However, this would further reduce the already small sample of 140 BAAD2 groups (with 10 independent variables in the models already) and undermine the power of the analyses.

A related issue concerns the proxy measure I used to account for the effect of violent operation intensity, which is defined as how intensive a group has been actively engaged in violent operations and confrontations in the current study. In other words, violent operational intensity is not only about being “active” in the volume of all incidents registered under the name of the perpetrating groups, but also how much “lethality” and “intensity” were shown during a group’s perpetration of violence that may trigger the need or exposure to opportunities of kidnappings. In this study, I used the estimated total number of “battlefield deaths” incurred

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<sup>17</sup> For example, the *Fragile States Index* (n.d.) considers “state fragility” as a construct with different attributes and noted the common attributes may include the loss of physical control of territories or a monopoly on the legitimate use of force, inability to provide reasonable public service among others, which corresponds to the group-level independent variables included in the models of the current study.

by the perpetrating groups' violent political operations in a group-year unit readily available in the BAAD2. Alternatively, one may also use the total number of violent attacks recorded in datasets like the GTD, such as bombing, armed assaults, assassination and so on to measure how "active" a group has been operating. Compared with the alternative approach of using violent incidents counts, the strength of the current approach is that it takes into account of the fact that not all attacks have the same level of intensity in violence. However, the current approach also has an apparent limitation – it is not a direct measure of overall violent operational intensity as not all violence ends in deaths, although the fatality level of violent operations may indicate the general level of violent intensity. For example, homicide rates were often considered "a reasonable proxy for violent crime and a robust indicator of levels of violence" in a society in macro-level violence research (UNODC, 2019, p.7). Future research may consider taking the time to develop more comprehensive and elaborated measures of violent operational intensity and examine its relationship with groups' engagement in kidnappings.

Another limitation of the current study is its cross-sectional nature, which would not allow us to observe how the temporal changes of the relevant organisational features would have similar effects on the kidnapping counts. The next chapter will investigate this longitudinal dimension of changes in kidnapping activities by violent political groups and contribute to the current question from a different perspective.



## Chapter 5

# Becoming a “Kidnapping” Group: Analysing Within-group Temporal Changes

### 5.1 Introduction

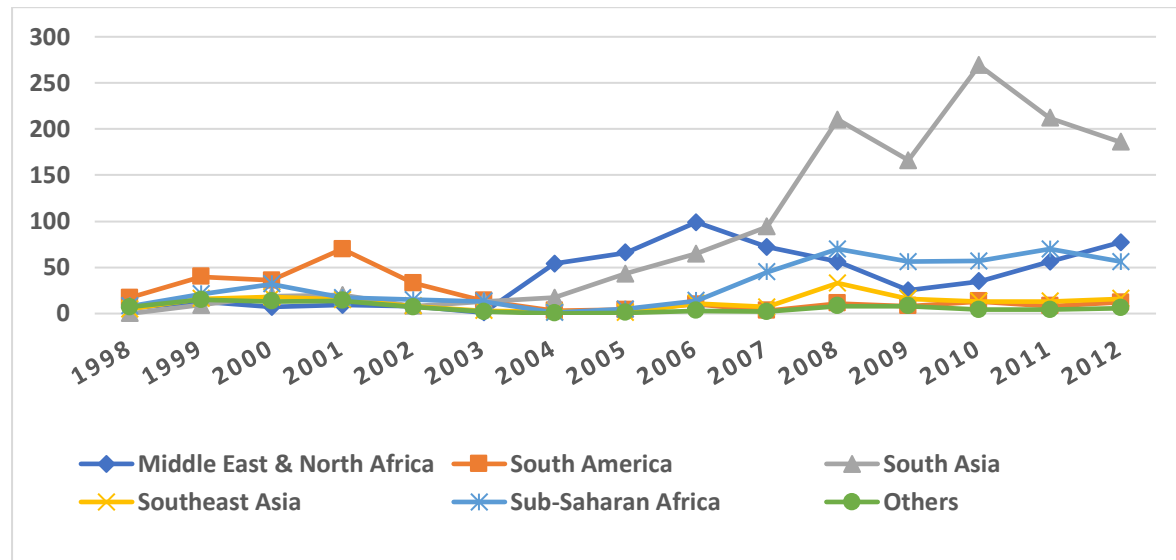
In the previous chapter, I examined the question of what explains the differences between the 140 violent political groups in the GTD-BAAD2 in their kidnapping levels from a cross-sectional perspective. Several organisational factors that characterise a group were examined and found to be directly or indirectly associated with a group’s engagement in kidnappings. These include territory control, state sponsorship, participation in illicit financing, membership size, operation intensity, ideology and network connectivity. Such between-group analyses are important. However, they are of limited use for understanding the dynamics of variations over time. A necessary follow-up question is: how much do these organisational factors of a group change over time, and can they explain the temporal changes within groups?

As visualised in Figure 5.1, there are clear temporal changes in the aggregated total number of kidnappings in different regions recorded in the GTD, and the data shows visible difference in the trajectories of total kidnappings at the region-level. For example, the data showed kidnappings committed by perpetrators in South America went up between 1998 and 2001 while the Middle East and North Africa region and South Asia experienced an upsurge after 2003. The number of kidnappings committed by violent political groups also shows visible fluctuations and clusters of high kidnapping counts in a few consecutive years. For example, the Taliban, the group with the highest number of aggregated kidnappings ( $N_{total}$

= 233,  $N_{\text{yearly\_average}} = 15.53$ ), had no recorded kidnappings in the GTD from 1998 to 2002 but consistently committing over 25 kidnappings per year between 2008 and 2012.

**Figure 5.1**

*Temporal Trends of GTD Kidnappings by Regions (1998 to 2012)*

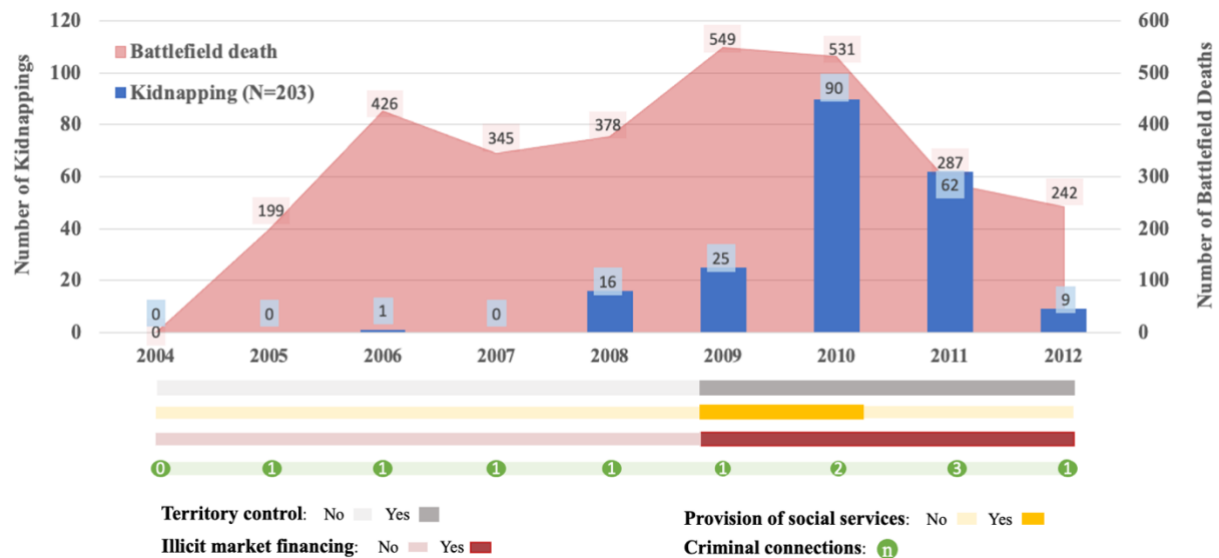


Note. N = 2,948.

Another interesting case is the Communist Party of India – Maoist (CPI-Maoist), the group with the highest yearly averaged kidnapping counts ( $N_{\text{total}} = 203$ ,  $N_{\text{yearly\_average}} = 22.56$ ). CPI-Maoist was established in late 2004 as a result of a merger of the Communist Party of India (Marxist-Leninist) and the Maoist Communist Centre of India (Mahadevan, 2012). As visualised in Figure 5.2, the group had engaged in violent combat operations from the beginning, as indicated by the battlefield deaths of 199 people incurred in the year 2005 according to the GTD-BAAD2 data. However, they did not start routinely committing kidnapping until 2008 ( $N = 16$ ), reaching a historical high of 90 kidnappings in 2010 and 62 in 2011, the highest two yearly-counts in the entire GTD-BAAD2. What are some of the plausible explanations for the peculiar upsurge?

**Figure 5.2**

*CPI-Maoist: Within-group Changes in Kidnappings and Key Organisational Characteristics*



*Note.* Data from GTD-BAAD2.

The BAAD2 data indicates that CPI-Maoist established territory control from 2009. They started providing social services and engaged in illicit financing schemes (specifically extortion) in the same year. This pattern is consistent with what was argued in the previous chapter – that controlling territory leads to the need to establish local governance and control in different spheres of life, which would benefit from using kidnappings to enforce rules and ensure compliance. Moreover, taking control of territories had intensified the counter-insurgency operations from the central Indian government forces, both in forms of overt military attacks as well as violent or nonviolent strategies to solicit defections from locals, group members and affiliates (Chandra, 2014). Incident details of the kidnapping cases attributed to CPI-Maoist since 2009 in the GTD suggest that many were directed at suspected “police informers” and defectors in their controlled areas, including local residents, officials,

as well as their own group members and other affiliated left-wing organisations (*see* Appendix I, GTD event ID: 200903280010, 200906070023, 200908050013, 201005260009). In the meantime, the number of criminal connections the group had in the previous year also witnessed an increase in both 2010 and 2011 when the group's kidnapping activities intensified.

To what extent is there a similar pattern of temporal changes in the organisational factors and kidnapping levels among violent political groups in general? How much of the within-group temporal changes in kidnapping can be explained by the relevant changes in organisational features related to extra-legal governance such as territory control, engagement in illicit financing, provision of social service, and number of criminal allies? This chapter addresses these questions by examining the longitudinal GTD-BAAD2 data with fixed-effects regression analysis, which are designed to examine dynamic relationships between changes in predictors and outcomes over time within the same units (Allison, 2009; Cameron & Trivedi, 2013).

In the following pages, I start by discussing my hypotheses, which are then applied to a largely similar set of independent variables as those tested in the previous chapter on between-group variation in kidnappings. I then move on to explain the data and the specific analytical procedures performed for my empirical analysis. Finally, I present the results and conclude with a discussion of the key findings, implications and directions for future research.

## **5.2 What Causes Within-group Changes in Kidnapping Numbers?**

Violent political groups are known to respond and adapt to changing situations (Brandt & Sandler, 2009; Enders & Sandler, 1995; Enders & Sandler, 2012; Enders & Su, 2007). Their decision-making has been observed to reflect an assessment of their current strategic interests,

the perceived benefits, costs and risks associated with the concerned action, and constrained by the resources available at the time (Crenshaw, 1998; Crenshaw, 2008; Kydd & Walter, 2006; Wood, 2010). As explained in the previous chapter, one of the key aspects that influences groups' strategic decision-making is their internal maintenance and cohesion, which includes (but is not limited to) ensuring a sufficient number of well-trained and motivated recruits, securing stable financing schemes to fund their operations, preventing and punishing defection and spying activities, solving disputes and ensuring peace and order within groups and local communities in which they are based. Many of these internal maintenance and group cohesion goals come down to the issue of establishing viable local governance and control schemes of the local population in an extra-legal context. In the previous chapter, I reviewed the relevant literature and preliminary evidence, arguing that the use of kidnappings might constitute an important aspect of extra-legal governance by violent political groups, as it serves as an effective coercive tool to compel cooperation and to enforce rules and order in the territories they control (*see* Sections 4.2 and 4.3). Results from the empirical analysis in the previous chapter on the between-group variations in kidnappings lend support for this extra-legal governance explanation. The results also highlighted possible causal pathways via enhanced group capacity and diffusion of tactics via network connections and allies. The current chapter builds on these findings and sets out to test whether temporal changes in organisational factors related to extra-legal governance, as well as group capacity and network connectivity, correspond with temporal changes in the numbers of kidnappings committed by violent political groups. Specific hypotheses include the following:

Groups are expected to commit more kidnappings during years when they control territories. This is because territory control is often the precondition to establish any

comprehensive governance scheme to regulate the social and economic interactions in the local communities, where kidnapping could be a useful coercive tool.

**Hypothesis 1:** Groups are more likely to commit kidnappings during the years when they control territories.

Groups are less likely to use kidnappings when they receive external material support (funding, weapons, training) from sovereign states, which would make them less reliant on exploitation and extraction from the local population for funding, material supplies and recruitment through coercion.

**Hypothesis 2:** Groups are less likely to commit kidnappings during the years when they are sponsored by other sovereign state(s).

I also expect to see groups committing more kidnappings during the years when they are providing social services. As discussed in the previous chapter, it is not uncommon for violent political groups to provide some forms of social services in their controlled territories as part of their extra-legal governance schemes. This requires a relatively stable social environment where community rules (often reflecting the normative values advocated by the groups) are consistently enforced, and the non-obeying or disruptive individuals are punished. What would be “law enforcement” activities in a sovereign state under the rule of law – arrest, detention, imprisonment – would likely manifest themselves as kidnappings in an extra-legal context. It is therefore hypothesised that:

**Hypothesis 3:** Groups are more likely to commit kidnappings during the years when they are providing social services.

Similarly, groups are expected to commit more kidnappings during years when they participate in organised forms of illicit financing (extortion, smuggling and drug-trafficking),

as kidnapping could be a useful tool to coerce locals to comply and cooperate with the groups in developing and exploiting the relevant illicit markets and “business” chains.

**Hypothesis 4:** Groups are more likely to commit kidnappings during the years when they participate in illicit financing schemes.

Since kidnappings are known to be resource-demanding and logistically complex (Gaibullov & Sandler, 2009; Santifort & Sandler, 2012; Wilson & Smith, 1999), I expected that groups would commit more kidnappings when they have relatively greater resources and capacity. In particular, an increased membership size would enable groups to have more people engaging in non-combat work such as guarding, transferring and taking care of kidnapped hostages. It is therefore expected that growing bigger in membership size would be associated with committing a higher number of kidnappings. Hierarchical command structure allows more efficient allocation of tasks and implementation of logistically complex operations such as kidnappings. So I expected that groups would commit more kidnappings during the time they have a hierarchical command structure.

**Hypothesis 5:** Groups are more likely to engage in kidnappings during the years when they have a bigger membership size.

**Hypothesis 6:** Groups are more likely to engage in kidnappings during the years when they have a hierarchical command structure.

Groups change the level of intensity of their overall violent operations depending on their social, political or economic situations. For example, groups might reduce their level of combat activities when a peace negotiation is looking promising, or they might want to cease attacks when there is a pandemic (Hernández-Morales, 2020; *Reuters*, 2020). This changing dynamics in a group’s overall operation intensity would presumably also be reflected in their number of kidnappings committed. It is therefore hypothesised that:

**Hypothesis 7:** Groups are more likely to engage in kidnappings during the years they have a higher level of operational intensity.

Lastly, engagement in kidnappings may be inspired by and emulate allies through social learning. As empirical results from the previous chapter suggest, groups with a higher number of allies are found to commit more kidnappings in general. Similarly, an increase in the number of allies and connections might be associated with an increase in the number of kidnappings committed when one looks at the within-group temporal changes. It is therefore hypothesised:

**Hypothesis 8:** Groups are more likely to engage in kidnappings during the years they have a higher number of allies and connections.

In addition to the above organisational factors that would supposedly have an impact on the number of kidnappings committed following a largely logical strategic approach, the temporal variation in kidnappings within a group might also be influenced by its own habit and event history (Rasmussen, 2017). There is likely some degree of autocorrelation in the numbers of kidnappings committed by the same group in consecutive years.

## **5.3 Method: Data and Analytical Procedures**

### **5.3.1 Data**

To analyse the within-group temporal changes in the kidnappings committed by violent political groups, I used the GTD-BAAD2 data, which is an unbalanced panel containing 1,386 yearly observations for 140 groups from 1998 to 2012.

The dependent variable is the number of kidnappings committed by a violent political group in a given year based on records in the GTD ( $M = 1.00$ ,  $SD = 4.72$ ,  $Min = 0$ ,  $Max = 90$ ). A dichotomised version of the dependant variable is created separately for the logistic



regression models ( $M = 0.18$ ,  $SD = 0.39$ ,  $Min = 0$ ,  $Max = 1$ ). As explained in the previous chapter, the independent variables are largely borrowed or derived from the relevant BAAD2 measures, including territory control, state sponsorship, provision of social services, participation in illicit financing, membership size, hierarchical command structure, battlefield deaths (as a proxy to measure operation intensity) and network connectivity. Specific descriptions on how the dependent variable and each independent variable were measured and coded were provided in Section 4.4.1.

While the previous chapter used the collapsed version of the data to obtain the yearly-averaged measure for each group for a cross-sectional analysis of the between-group differences, the current analysis uses the pre-collapsing version to take advantage of the longitudinal dimension of the data (*see* Section 4.4.1 and Table 4.2 for detail of the collapsing procedures). A summary of key descriptive statistics for the dependent and independent variables used in the current longitudinal analysis of within-group variation in kidnappings are provided in Table 5.1.

**Table 5.1**

*Descriptive Statistics for Independent Variables to predict Within-group Variation in Kidnapping Outcomes*

	Theoretical Construct	Source	Data Types	Min	Max	Mean	SD		
							Overall	Between	Within
Kidnapping	Coercive Control	GTD	Counts	0	90	1.00	4.72	3.08	3.64
Kidnapping (dichotomised)		GTD	Binary	0	1	0.18	0.39	0.28	0.29
Territory control	Extra-legal Governance (Precondition & Activities)	BAAD2	Binary	0	1	0.25	0.43	0.37	0.26
State sponsorship		BAAD2	Binary	0	1	0.08	0.27	0.22	0.17
Social services		BAAD2	Binary	0	1	0.10	0.30	0.26	0.16
Illicit financing		BAAD2 (Recoded)	Binary	0	1	0.27	0.45	0.34	0.29
Membership size	Group Capacity	BAAD2	Ordinal	1	4	2.69	0.70	0.69	0.28
Hierarchical command		BAAD2	Binary	0	1	0.79	0.41	0.42	0.09
Battlefield death (log-transformed)	Operation Intensity	BAAD2, UCDP	Numerical	0	9.60	2.10	2.65	2.06	1.92
Network connectivity	Diffusion	BAAD2	Counts	0	10	0.39	0.92	0.64	0.59

*Note.*  $N$  (group-year) = 1,386.  $N$  (group) = 140. “Within” and “between” standard deviation are calculated using Stata command “xtsum” (StataCorp, n.d.), see also Cameron and Trivedi (2009, p. 245).

### 5.3.2 Analytical Procedure

#### *Descriptive Analysis*

To understand the patterns of variability for each independent variable, the Stata command “xtsum” was used to decompose the variance of variables into a “between” component and a “within” component (Cameron & Trivedi, 2009; StataCorp, n.d.). This procedure separates the total variability into variance between the group-clusters and the variability within a group over time. Specifically, the “between” component of the standard deviation is calculated over the 140 groups using the mean scores of each panel group, which is often different from the overall standard deviation calculated from all group-year observations for unbalanced panel data, as each group panel would be assigned an equal weight despite the varying length and number of group-year observations it contained. The “within” component of the variable is calculated based on how each observation deviates from the mean score of the panel (i.e., the violent political groups) it belongs to, then adding back the overall grand mean to make it comparable to the original variable values. Standard deviations of the “between” and “within” components of each variable are presented in Table 5.1. Separating and examining the “within” variations are particularly important because the current analysis purported to model the “within-group” temporal changes. Importantly, the results show that the variation in kidnappings within a group over time is greater ( $SD = 3.64$ ) than the variability in the frequency of kidnappings between groups ( $SD = 3.08$ ), highlighting the need to examine the dynamics of change over time in addition to the cross-sectional analysis conducted in Chapter 4. Moreover, independent variables that barely display any “within-group” variations would add little value to the regression models and therefore are excluded (details of the specific independent variables excluded on this basis are discussed in the next sub-section). To get a sense of the

level of autocorrelation for kidnappings committed by the same group in consecutive years, I also used Stata command “xttrans” to obtain the transition probability between different kidnapping counts (Cox, 2002).

### ***Fixed-effects Regression Models***

To investigate how temporal changes in kidnappings by violent political groups are influenced by other time-variant organisational factors, fixed-effects models are performed to analyse both the yearly changes in the number of kidnappings committed (the count model), as well as whether a group has engaged in kidnapping in a given year (the binary outcome model). Fixed effect models are used for their known strength in controlling all unobserved group-specific effects that are time-invariant and making the model more robust against misspecification (Allison, 2009; Cameron & Trivedi, 2013). The fixed effect models do so by including a group-specific term to model unobserved group-level effects, which can correlate with the independent variables. A random-effects model, on the other hand, comes with a strong assumption that the unobserved group-specific effects are not correlated with the independent variables specified in the model. This assumption is often violated in reality and can lead to inconsistent estimations (Cameron & Trivedi, 2013, p. 345).

As Table 5.1 presented in its righthand column, all dependent and independent variables, except for hierarchical command structure, show notable variations within the group clusters over the years. However, the hierarchical command structure had a particularly low “within” variation of 0.09. A further examination of the data shows that only five groups among the 140 in the sample had experienced any changes in their hierarchical command structure

according to the BAAD coding.<sup>18</sup> The low level of within-group temporal variation for hierarchical command structure means that it would add little explanatory power to statistical models of within-group changes in kidnappings and was therefore dropped from the fixed-effects models.

In addition, groups that do not experience any “within-group” changes over the years in the relevant kidnapping outcomes were also automatically dropped from the fixed effects analysis. This resulted in a reduced sample size (from the original 1,386 group-year observations) for both the count model and the binary outcome model.

For the count models, I performed fixed-effects Poisson regression analysis because the Poisson distribution is suited to model count data in the form of non-negative integers (Coxe et al., 2009). A total of 67 groups ( $N_{group-year} = 591$ ) were dropped due to a lack of within-group variance. This included three groups with only one observation between the GTD-BAAD2 observation period from 1998 to 2012, along with an additional 64 groups that had no kidnappings recorded throughout their years observed. An initial model was tested using the robust standard error to allow observations to correlate at the group level (*see* StateCorp, 2013 for descriptions on the standard error options for command “xtpoisson”). Additionally, bootstrapping standard errors with 1,000 replications based on the group-clusters were examined to check if random resampling would result in significant changes in the results. This

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<sup>18</sup> These five groups – all of which were active throughout the observation period between 1998 and 2012 (apart from NLA, active between 1998 and 2000) – are: the Abu Sayyaf Group (ASG) in the Philippines; the Al-Gama'at Al-Islamiyya (IG) in Egypt; the Front for the Liberation of Cabinda / Cabinda Armed Forces (FLEC-FAC) in Angola; the Military Junta for the Consolidation of Democracy, Peace and Justice in Guinea-Bissau; and the National Liberation Army (NLA) in Macedonia.

follows the strategy recommended by Cameron and Trivedi (2009) and Allison (2009), who observed that bootstrapping standard errors are often the more robust estimates of underlying data with overdispersion. Scatterplots of “within-group” variations of yearly kidnapping counts plotted against each independent variable were visually inspected to identify highly influential observations and outliers.<sup>19</sup> Additional sensitivity analyses were also conducted comparing the fixed-effect Poisson results with results from the fixed-effect negative binomial regression and random effects Poisson model.

Similarly, for the binary outcome models, fixed-effect logistic regression was performed with both conventional standard errors and the bootstrapping standard errors on a reduced sample of 71 group clusters involving 616 group-year observations (due to exclusion based on time-invariance). Results for both the count models and the binary outcome models are summarised in Table 5.3.

## 5.4 Results

Among the 1,386 group-year observations in the sample, a total of 1,246 have a next-year observation for the same group (subtracting each of the end-year observations for the 140 groups from the 1,386). Transition probabilities are calculated for these 1,246 group-year observations and summarised in Table 5.2 below. Notably, 1,005 of the 1,246 group-year observations recorded no kidnapping (80.7%), 151 group-year observations showed incidental

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<sup>19</sup> These “within” variation measures are calculated based on the same method discussed earlier with the Stata command “xtsum” to calculate the “within” component of standard deviation. *See also* Cameron & Trivedi (2009, p.249).

kidnappings of no more than three in the given year (12.1%), and only 90 had more than three kidnappings recorded (7.2%).

**Table 5.2**

*Transition Probabilities for Different Levels of Kidnapping Counts (GTD-BAAD2)*

From Year ( <i>N</i> )	Transition Probability to Year ( <i>N</i> +1)			Total
	No kidnapping	No more than 3 kidnappings	More than 3 kidnappings	
No kidnapping	<b>90.4</b>	8.2	1.4	100.0
No more than 3 kidnappings	<b>51.1</b>	32.2	16.8	100.0
More than 3 kidnappings	6.4	26.9	<b>66.7</b>	100.0
Total. <i>N</i>	1,005	151	90	1,246
%	80.7	12.1	7.2	100.0

*Note.* *N* (group-year) = 1,246.

Among the 1,005 observations where no kidnapping was committed, 90.4% were followed by another year of no kidnapping, only 8.2% were followed by a year recording some but no more than three kidnappings, and 1.4% were followed by a year with more than three kidnappings committed. For the 151 group-year observations with only incidental numbers (no more than three) kidnappings committed, more than half were followed by a year without any kidnappings, and 16.8% had more than three kidnappings in the following year. For the 90 group-year observations where more than three kidnappings were committed, 66.7% were followed with another year of more than three kidnappings, and only 6.4% returned to no kidnappings in the following year.

Fixed effects Poisson models were run on 73 group-clusters, including 795 group-year observations (after dropping the groups that had no temporal variations in the numbers of kidnappings committed).

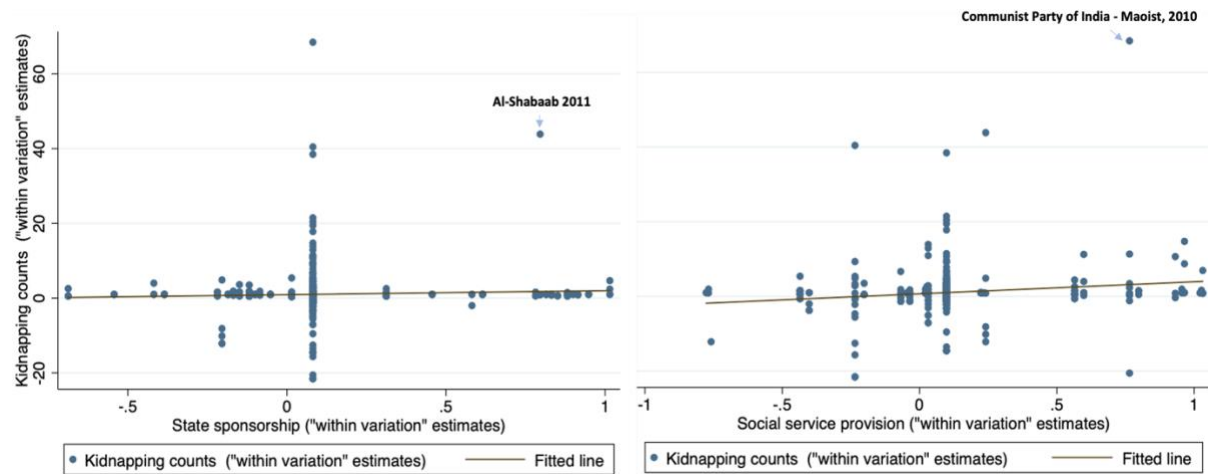
As summarised in Table 5.3, the fixed effects Poisson with bootstrapping standard errors found that within-group changes in territory control status, network connectivity and operation intensity have significant effects on the within-group changes in terms of the numbers of kidnappings committed. In particular, having territory control would make kidnappings 1.99 times more likely to occur compared to those years without territory control while other variables are held constant ( $IRR = 1.99$ ,  $B = 0.69$ ,  $p = .004$ ). For network connectivity, one-unit change (an increase of one more ally connected to the group) would make kidnappings 1.78 times more likely to happen ( $IRR = 1.78$ ,  $B = 0.58$ ,  $p < .001$ ). One unit increase in operation intensity (as measured by the log-transformed value of the number of battlefield deaths inflicted by the group in the year) is estimated to make kidnappings 1.32 times more likely to happen ( $IRR = 1.32$ ,  $B = 0.28$ ,  $p < .001$ ).

The fixed effects Poisson regression with the robust standard error reported an additional effect of state sponsorship ( $p < .001$ ) and an almost significant effect for the provision of social services ( $p = .083$ ). However, visual inspection of the “within variation” scatter plots (Figure 5.2) suggests that the estimates for these two independent variables might be highly influenced by two outliers: Al-Shabaab in 2011, which received state sponsorship and had the third-highest number of kidnappings committed by a group in a year ( $N_{kidnap} = 56$ ); and CPI-Maoist in 2010, with a presence of social service provision and the highest number of kidnappings ( $N_{kidnap} = 90$ ) among all group-year observations in the GTD-BAAD2. After excluding these two observations, the robust errors model produced almost identical results to the bootstrapped model: state sponsorship and social services were no longer significant. Further sensitivity analysis using fixed-effect negative binomial regression and ransom effects Poisson with bootstrapping standard errors also produced almost identical results to the bootstrapped fixed-effects Poisson model reported above.



**Figure 5.3**

*Within Variation Scatter Plots to Check for Outliers and Highly Influential Observations*



*Note.* “Within variation” estimates were calculated using the Stata command “xtdata, fe” based on how each observation deviates from the conditional mean of the specific group-cluster, adding back the overall mean score to make the value comparable to the original variable and group-cluster means (Cameron & Trivedi, 2009, p.245).

The fixed effects logistic regression model was performed on 69 group-clusters and 770 group-year observations (after dropping the groups that have no temporal variation in the dichotomised kidnapping outcome). As Table 5.3 summarised, territory control, provision of social services, illicit market financing, network connectivity and operation intensity are all found to have a significant effect on the within-group changes in kidnappings. These results are consistent between the conventional standard errors estimates and the bootstrapped standard errors.

Specifically, the fixed-effects logistic regression models found that gaining territory control would increase the odds of a group committing any kidnappings by 161% compared to years without territory control ( $OR = 2.61$ ,  $B = 0.96$ ,  $p = .035$ ,  $p$ -value reported based on the

**Table 5.3**

*Explaining Within-group Changes in Kidnapping Counts with Organisational Factors: Fixed Effects Model Comparison*

	Poisson Fixed Effects				Logit Fixed Effects			
	<i>B</i>	<i>Robust S.E.</i>	<i>Bootstrap S.E.</i>	<i>IRR</i>	<i>B</i>	<i>S.E.</i>	<i>Bootstrap S.E.</i>	<i>OR</i>
Territory control	0.69	0.17***	0.24**	1.99	0.96	0.41*	0.45*	2.61
State sponsorship	0.98	0.34**	1.30	2.67	-0.3	0.69	0.77	0.74
Social services	0.39	0.22 <sup>†</sup>	0.30	1.47	1.12	0.50*	0.47*	3.06
Illicit market financing	0.34	0.35	0.36	1.41	0.99	0.31***	0.36**	2.70
Membership size	0.05	0.25	0.3	1.05	-0.57	0.33 <sup>†</sup>	0.4	0.56
Network connectivity	0.58	0.15***	0.15***	1.78	0.41	0.13**	0.14**	1.50
Battlefield deaths	0.28	0.06***	0.06***	1.32	0.28	0.05***	0.05***	1.33
N (obs)	795				770			
n (group/cluster)	73				69			

*Note.* <sup>†</sup>  $p < .10$ , \*  $p < .05$ , \*\* $p < .01$ , \*\*\* $p \leq .001$ . Bootstrap performed based on 1,000 replications of group clusters. “IRR” stands for incident rates ratio; “OR” stands for odds ratio, both of which are alternative measures from the coefficients to interpret the estimated effects in Poisson or logistic regressions.

more robust bootstrapped standard errors). Provision of social services would increase the odds of a group committing any kidnappings in a year by 206% compared with years when the groups do not provide any social services ( $OR = 3.06$ ,  $B = 1.12$ ,  $p = .018$ ). Participation in illicit market financing would make the odds of a group engaging in any kidnappings in the year by 170% compared to the years when the group does not participate in illicit market financing ( $OR = 2.70$ ,  $B = 0.99$ ,  $p = .005$ ). A one-unit increase in network connectivity – developing one more connection to allies – is estimated to increase the odds of a group committing any kidnappings in the year by 50% ( $OR = 1.50$ ,  $B = 0.41$ ,  $p = .004$ ). A one-unit increase in the operation intensity measure (the log-transformed value of battlefield deaths inflicted in a given year) would increase the odds of the group committing any kidnappings in the year by 33% ( $OR = 1.33$ ,  $B = 0.28$ ,  $p < .001$ ). A random-effects logistic regression model was also tested with the same bootstrapping procedure as further sensitivity analyses, which yielded similar results.

## 5.5 Discussion

This chapter aims to shed light on the dynamic causes of kidnapping by violent political groups by examining the predictors of change in levels of kidnapping activities over time. A number of independent variables observed at the organisational level are included in the model, bearing theoretical relevance to kidnappings via multiple causal pathways. The main theoretical pathway this study is interested in concerns extra-legal governance, namely, a group might have a higher need to use kidnappings when they take control of territories, provide social services to the public, or participate in illicit market financing schemes. The latter are identified in existing literature as important features of governance in an extra-legal context (Arjona et al., 2015; Förster, 2015; Kasfir, 2015; Mampilly, 2011; Steward, 2016), which may necessitate

the use of coercive enforcement tools such as kidnappings to establish social and economic rules and order. Additional pathways are also tested and accounted for in the models: change in group capacity and resources, operation intensity, and social learning. For example, groups may increase their likelihood of committing kidnappings when they grow in membership size, as the demanding nature of kidnapping in terms of human resources would make kidnappings less costly to accomplish (East, 2015; Gilbert, 2020b). On a related note, groups might have a higher chance of committing kidnappings in periods when they are more actively engaged in their violent political campaigns in general – higher operation intensity – which may or may not be related to group capacity and resources. Lastly, groups might be observed to commit more kidnappings when they become more well-connected to allies due to enhanced channels to emulate and acquire the skills of kidnapping through social learning and diffusion.

Specifically, within-group change in kidnappings was examined by fitting fixed effects models on both a count-based kidnapping outcome variable and a dichotomised kidnapping outcome variable.

The count model only finds significant effects of change in territory control, network connectivity and operation intensity on the temporal changes in the number of kidnappings committed. However, the logistic regression model of the dichotomised kidnapping outcome found additional significant effects for illicit market financing and provision of social services, which are key spheres of manifestation for governance activities in extra-legal contexts (Arjona et al., 2015). The significant effects found on these two factors provides support for the existence of a causal pathway to kidnapping via extra-legal governance. This is in addition to the significant effects of territory control, network connectivity and operation intensity found in both the count model and the logistic regression model, supporting the existence of separate mechanisms influencing temporal changes in kidnapping activities through group resources,

social learning mechanisms through network connections, and general levels of operation intensity.

How do we interpret the difference in the results between the count model and the binary model, more specifically, the failure to find significant effects in the count model for the provision of social services and participation in illicit market financing? There are different possibilities. One possible explanation is that fluctuations in the specific numbers of kidnappings committed by a group, once it has already adopted the kidnapping practice, are less sensitive to changes in the specific forms and spheres of extra-legal governance that would benefit from the usage of kidnappings, including social service provision or illicit market financing. However, changes in the group capacity and operation intensity, enabling or requiring the groups to use *more* kidnappings, would be more influential on the specific numbers of kidnappings committed, as found in the count model. In other words, evidence from the current study suggests that extra-legal governance factors might influence whether groups engage in kidnappings more than how much they do it.

However, it is also important to note that the outcome measurements in the count model – the specific numbers of kidnappings committed in a given year – are likely more prone to suffer validity issues caused by the media selection process and missing-data bias discussed in Chapter 3 than its binary counterparts. Thus, the different results produced by the count model and the binary model could also be partly influenced by the different levels of measurement validity in the kidnapping outcomes I analysed.

Both the count model and the binary model found strong effects of change in network connectivity, similar to those found in Chapter 4 explaining the between-group difference in kidnapping counts. The consistent effects of network connectivity on kidnapping found in

various models tested in this study provide strong evidence of a positive association between the two, lending support to the hypothesis that social learning mechanisms may lead to kidnapping diffusion via one's allies and networks. However, one should also bear in mind the possible alternative in the direction of the association, namely, that engagement in kidnappings and extra-legal governance might promote a group's reputation and cooperation with other groups, resulting in an expansion in allies and networks (Phillips, 2019). Although the network connectivity variable in the current study was intentionally designed to measure the number of allies in the "previous year" to better account for the sequence of events required to imply a potential "causal" relationship (Hill, 2015), it does not rule out the possibility of a reverse direction in their relationship. This is particularly notable when there is a high level of autocorrelation in the measure in consecutive years when a "previous year" measure could simply be a proxy of the current year.

Contrary to my hypotheses, membership size was nonsignificant in both the count model and the binary outcome model of within-group change in kidnappings. Hierarchical command structure was found to be largely constant in GTD-BAAD2, therefore lacking explanatory power of within-group changes in kidnapping in the fixed-effects models. Both membership size and hierarchical command structure represent important organisational capacity features that would make kidnappings relatively easier or less costly to operationalise (see earlier theoretical discussions in Section 4.2.2). The lack of their explanatory power for changes in kidnappings by violent political groups observed in the data may suggest that groups do not engage in kidnappings simply because it becomes easier to do, through more plentiful human resources and a more efficient command structure. However, it is also possible that the lack of statistical effects was caused by the relatively low-level of measurement for these two factors in the available data. Notably, the membership size variable was measured on an

ordinal scale of four categories (1 = unknown/0-100, 2 = 100-999, 3 = 1,000–9,999; 4 = 10,000 or more, *see* BAAD2 Codebook, p.6), and hierarchical command was measured as a binary outcome (1 = hierarchical, 0 = not hierarchical, *see* BAAD2 Codebook, p.7). These might be of insufficient precision to capture *changes*, either “between-groups” or “within-groups,” to show significant statistical effects in the types of analysis conducted in the current study. It would be worth trying to measure membership size and efficiency in command structure for violent political groups with more categories of “change” to enhance their observed variability in future research similar to the current study.

Also contrary to my hypotheses, state sponsorship was found to be nonsignificant in both the count model and the binary outcome model in the current analysis of within-group changes in kidnappings. This is particularly interesting given that a significant effect was found for between-group variation in Chapter 4. The difference in the findings highlighted the possibility that once a group decided to start engaging in some kidnappings, the later temporal changes in whether or how many kidnappings were conducted in a given year were less sensitive to the changes in their circumstances of external material support. Indeed, as the transition probability results (Table 5.2) indicate a high-level of autocorrelation in the numbers of kidnappings committed by the same group in consecutive years, there is a possibility that alternative mechanisms unrelated to a strategic assessment of organisational needs might play a role in the temporal fluctuations of kidnappings, such as organisational memories and habit (Rasmussen, 2017). Future research could consider using the hazard model to study the “onset” of kidnapping activities or other tactics in general and investigate whether the “rational strategic” factors would perform better in explaining the “onset” than the “within-group” fluctuations in kidnapping counts.

## Chapter 6

### Discussion

#### 6.1 Research Aims Revisited

The field of research in terrorism and political violence has witnessed a huge increase in the volume of publications that contribute to our understanding of the causes of violent extremism in recent decades, especially in the wake of 9/11 (Schuurman, 2020; Silke, 2008; Young & Findley, 2011). Much of the research has focused on the rise of violent extremism and terrorist events in general. Yet, less is known about why violent political actors engage in specific types of violence and tactics. Kidnapping, as one of the main tactics employed by violent political groups, remains relatively under-studied. Existing literature on kidnapping mostly analysed it as an act of violence motivated by the apparent monetary gains or political concessions conditional upon fruitful negotiations (*see* Briggs, 2001; Elster, 2004; Noor-Mohamed, 2014; Turner, 1998; Williams, 2009). In this study, I argued that an explanation of kidnappings beyond “negotiation-oriented” motivations might be warranted, as numerous recorded kidnappings showed no follow-up attempts to negotiate for a conditional release of the hostages. Instead, many incidents of kidnappings by violent political groups appear to be serving the purpose of exerting control over the local population in seized territories and enforcing community rules in different spheres of life, sometimes even to deliver “justice” and cultivate their political reputation (*see* example cases discussed in Section 4.2.2). These kidnappings function as a general coercive tool to enforce compliance and to impose order, rules and punishment under the governance of violent political groups in an extra-legal context. In a



sense, they bear some notable resemblance to nation-states' legitimised exercise of coercive power, such as law enforcement, police interrogation, detention, and imprisonment. However, the general hypothesis that kidnappings may partly function as a coercive tool to exert or enforce control and governance in an extra-legal context – the “extra-legal governance thesis” – has not been empirically tested. The underlying mediating mechanisms that may link extra-legal governance by violent political groups to their engagement in kidnappings are also poorly understood.

To advance our understanding of the relationship between kidnappings and extra-legal governance, the current study set out to achieve three specific research aims. First, this study aimed to examine the patterns of cross-sectional variation among violent political groups in their level of engagement in kidnappings and their relationship to organisational factors related to extra-legal governance. By “organisational factors,” I refer to the features and characteristics of a group measured at an organisational level. Second, this study aimed to examine the within-group temporal changes in kidnappings by violent political groups and their relationship to changes in organisational factors related to extra-legal governance. Third, this study aimed to analyse the patterns and characteristics of kidnappings that were systematically excluded from the empirical analyses because the perpetrator-identity was missing in the GTD. Analysing the patterns of missingness is important as it may bring in a sampling bias and limit the generalisability of the findings.

In the remainder of this chapter, I will summarise the main findings related to each of these specific research aims from the previous chapters and discuss their implications for theory and future research.

## 6.2 Contribution to Knowledge

The current study followed an approach taken by several scholars in the field of international terrorism studies: combining attacking incident data from the GTD and information on organisational factors of violent political groups coded in the BAAD2 to analyse engagement in different types of violent activities at an organisational level (*see* Asal et al., 2020; Asal et al., 2021; Boyd, 2016; Mierau, 2015). A limited number of prior studies have applied this approach specifically to examine how organisational-level characteristics are associated with kidnappings by violent political groups (for example Asal et al., 2019; Gilbert, 2020b; Forest, 2012b). These studies have significantly advanced knowledge in the research area. Yet, these studies can often be described as primarily explorative as they did not specify the theoretical pathways through which group-level variation in kidnappings can be influenced by the explanatory factors included in their models. Rather, they tend to explore potential associations between factors of interest and kidnapping outcomes without fully considering possible confounders and alternative theoretical constructs. The current study has built on these findings and aims to advance knowledge in the following three key aspects.

First, theory-wise, the current study specifically examined the possible function of kidnappings as a general coercive tool to enforce rules and order in an extra-legal governance context, which had not been tested in prior kidnapping literature. The present study does so while controlling for the possible separate effects on kidnapping from organisational capacity, social learning and diffusion. The relevance of the latter two causal mechanisms is highlighted by findings from prior studies on kidnappings (Asal et al., 2019; Gilbert, 2020b; Forest, 2012b) and supported by existing literature on general decision-making by violent political groups. In addition, the current study also used path models to explore the potential causal pathways and the respective structural relationships among the independent variables by looking at the direct

and indirect effects they have on kidnappings. This had not been done in prior research on this topic, which focused on examining direct associations (*see* Asal et al., 2019; Gilbert, 2020b; Forest, 2012b).

Second, the current study decomposed group-level variation in kidnappings by violent political groups into cross-sectional “between-group” variation and “within” group temporal variation, which were analysed separately. Prior studies usually only focused on one of these dimensions (Asal et al., 2019; Forest, 2012b) or simply treated repeated measures on the same group over the years as independent cross-sectional units (*see* Gilbert, 2020b). The strength of the current approach is to take full account of the structure of the underlying data, allowing separation and comparison of effects of the same organisational factors on both the overall averaged level of engagement in kidnappings and the temporal-variations within the same groups. The latter were analysed through fixed-effect models, which have the advantage of controlling for unobserved time-invariant group heterogeneity (Allison, 2009; Cameron & Trivedi, 2013). Examining the effects of the same sets of organisational factors (relating to extra-legal governance, group capacity and social learning) both “across groups” and “across time” can inform us of their explanatory potential of kidnappings from different analytic perspectives.

Lastly, the current study also represents the first analyses of kidnappings by violent political groups that includes an in-depth assessment of the missingness in perpetrators’ identity – the magnitude of the missingness, the descriptive characteristics of the cases missing perpetrators information, and possible implications for the current study. Prior studies on kidnappings have often addressed the problem of missing perpetrator information in a passing sentence as a limitation of the study. Although some studies have analysed the general issue of missing data in open-source secondary datasets (Arva & Beiler, 2014), none have

specifically addressed the issue of kidnapping events. By supplementing the main analyses on kidnappings with a critical assessment of potential bias caused by missing information in the GTD kidnapping data, the current study is better equipped to interpret findings with the proper caution. Moreover, an assessment of missing perpetrator information among the GTD kidnappings contributes to our understanding of the general methodological challenges of missing-information in open-source data, which is a common issue faced by researchers of political violence and terrorism.

### **6.3 Summary of Findings**

This section provides a summary of the main empirical findings from this thesis. I will start with findings in relation to the patterns of missingness in perpetrators' information among the GTD kidnapping events, corresponding to the analyses in Chapter 3. I will then summarise findings on the relationship between extra-legal governance and kidnappings, including both analyses on the between-group variations and within-group temporal changes from Chapters 4 and 5.

#### ***6.3.1 Kidnapping by “Unknown” Perpetrators: The Excluded Cases***

One important characteristic of recorded attacks by violent political groups is that most of them were not followed by any “claim of responsibility” by the perpetrators, and it is not uncommon to see attacks without identified perpetrators in the GTD (LaFree, 2010). Specifically, 45.1% of all attacks recorded in the GTD and 30.1% of the GTD kidnapping events were marked as perpetrators “unknown.” Attacks with unknown perpetrators cannot be considered in analyses where cases are aggregated by perpetrating groups, as is the case in the present study. This may result in selection bias in the available data. It is therefore important to understand the

processes that may influence whether cases have missing information, and to assess the degree to which they may affect my findings. In Chapter 3, I tried to examine this problem in relation to data-missingness in perpetrators' identity for the GTD kidnapping data, which I relied on for the empirical analysis in Chapters 4 and 5. The prevalence and characteristics of kidnappings by "unknown" perpetrators in the GTD were examined with the following two aims: 1) to understand the characteristics of kidnapping cases with missing perpetrators' information in the GTD and therefore excluded from my empirical analysis of group-level differences in kidnappings; and 2) to identify possible underlying mechanisms that influence the missingness of perpetrator identity for kidnapping events. Multiple methods and analyses were employed, including a review of the relevant literature on media selection, the history and evolution of data collection methods of the GTD, in-depth case studies of particular regions and cities, and descriptive analyses of the GTD kidnapping data. In addition, a series of multilevel logistic regression models were used to examine whether, and to what extent, missingness in perpetrator identity among the GTD kidnappings can be explained by the country-level and the country-year level contextual effects, as well as incident-specific characteristics of kidnapping events.

An important finding from Chapter 3 is that the missingness of perpetrator information among the GTD kidnapping incidents follows clear temporal and geographic patterns. Multilevel logistic regression models tested in this study also consistently found that over 40% of the variance in the missingness of perpetrators' identity information in the GTD kidnappings can be explained by country-year level clustering (and over 20% by country-level clustering). This suggests the existence of important country-year level contextual effects. Multiple contextual factors and mechanisms have been identified that may have potentially influenced the temporal-geographic patterns and explained the country-year level contextual effects.

Firstly, the more recent decades have witnessed less missingness in perpetrators' information. This is likely due to the advancement of information technology and the rise of the Internet, starting from the 2000s, which would result in both an increased amount of available information reported in the public domain as well as the enhanced capability of the GTD team in data collection. Moreover, the fluctuation of missingness in perpetrator information appeared to show a pattern coinciding with periods of elevated levels of internal armed conflicts. This was observed both in the aggregated global level data (*see* Figure 3.2 and Table 3.1) and the situation in the Middle East and North Africa region since the outbreak of the Iraq war in 2004, where the level of missingness in perpetrator identity increased while all other regions experienced a steady decline (*see* Figure 3.3). This pattern of a positive association between the missingness of perpetrators' information and internal armed conflicts may be explained by the difficulty faced by news reporters in covering violent incidents in areas of conflict. On the other hand, the level of domination and monopoly of violence achieved by one or several violent political groups in an area might reduce missingness in perpetrator information (*see* case studies of the Central American region and the top 20 cities with the highest GTD kidnapping counts in Sections 3.3.3 and 3.3.4). The negative association between missingness and group-domination could be due to correct attribution – perpetrator-identification would be easier as the dominating groups might be less concerned about hiding their identities. Alternatively, it may also be a result of erroneous attribution by the media and authorities, who may have a tendency to attribute kidnapping events to the most dominant and powerful groups in the area, even in the absence of specific information. Additionally, regional and temporal patterns of missing perpetrator information also seemed to be influenced by the changing geopolitical interest of the “core” countries (Wallerstein, 1974), who play a pivotal role in setting the agenda for international media reporting and resource allocation (Guo & Vargo, 2017; *see* also Section 3.3.3 for discussions on how US foreign policies might have

caused a sudden surge of media reporting on Central American countries in the mid-1980s). Disinformation efforts and media censorship by the relevant authorities to serve their own interests also likely feed into the patterns of missing data observed in the GTD (LaFree, 2010). Although an explorative analysis using multilevel logistic regression suggests that country-level press freedom scores did not have any significant effects on missingness of perpetrator information.

In addition to the contextual factors, my analyses also identified a number of incident-specific characteristics that may influence whether perpetrator information is missing in the GTD. Specifically, kidnappings with ransom requests are less likely to miss information on the perpetrators' identity. Kidnappings with a higher fatality rate were found to be less likely to have missing information on the perpetrators' identity. This is consistent with the observation from existing literature in media studies that incidents of a sensational and novel nature tend to receive more extensive media attention (Staab, 1990; Weimann & Brosius, 1991) and, therefore, should be less likely to suffer missing information. However, kidnappings involving the use of hot weapons (defined in Chapter 3 to include "firearms, explosives, incendiary and chemical weapons") are found positively associated with missingness in perpetrators' identity information. This is opposite to what was expected under the sensation and novelty explanation of missing information, as events with hot weapons are supposedly more high-profile compared with those involving cold/unknown weapons. One possible explanation for this is the possible confounding effects of factors not included in my logistic regression models, namely, the presence of intra-state armed conflicts and the extent to which dominance and monopoly had been achieved by the violent political groups operating in the area. Armed conflicts, where hot weapons would be commonly used, had been observed to coincide with a higher percentage of missingness in perpetrators' identity. The positive

association between the use of hot weapons and a higher level of missingness observed in the data may be a reflection of the relationship between armed conflicts and kidnappings. As discussed earlier, dominance and monopoly of power by one or a few groups may reduce the level of missingness in perpetrator identity for various reasons, therefore producing the statistical association observed in the data between the kidnapping of private citizens and a higher chance of having “unknown” perpetrators in the GTD.

These findings suggest that information on the identity of the perpetrating groups is unlikely to be missing at random. Analyses of kidnappings that only include those with identified perpetrators may cause some level of sampling bias, which limits the generalisability of the results. It is therefore important to factor in the contextual and incident-level characteristics discussed above.

### ***6.3.2 Kidnapping as a function of extra-legal governance***

In Chapters 4 and 5, I conducted empirical analyses on whether and how much group-level variations in kidnappings can be explained by organisational factors related to extra-legal governance. Specifically, Chapter 4 is a cross-sectional study examining the between-group variation in kidnappings among the 140 violent political groups in the combined dataset GTD-BAAD2. Both a series of block-wise MLRs and a path model were performed to analyse the data. The latter tested specified pathways of direct and indirect associations between the independent variables and the kidnapping outcome. Chapter 5, on the other hand, examined the temporal variations “within-groups” by fitting fixed-effects models on the 1,386 group-year observations in GTD-BAAD2. Both fixed-effects Poisson models, using a count-based kidnapping outcome variable, and fixed-effects logistic regression models, based on a dichotomised kidnapping outcome variable, were analysed. Table 6.1 summarises the



independent variables used in these statistical models, the respective theoretical constructs they represent, and the corresponding results found in the “between-group” study and the “within-group” study.

**Table 6.1**

*Summary of Statistical Modelling Results: Between-group versus Within-group Analyses*

	Theoretical Construct	Between Group		Within Group	
		MLR	Path Model	Count Model	Binary Outcome Model
Territory control	Extra-legal Governance (Preconditions & Activities)		Indirect <sup>1, 2</sup>	✓	✓
State sponsorship		✓	-		
Social services			Indirect <sup>1, *</sup>		✓
Illicit financing		✓	Direct <sup>1</sup>		✓
Membership size	Group Capacity		Indirect <sup>2</sup>		
Hierarchical command			-		
Battlefield death	Operation Intensity	✓	Direct <sup>2</sup>	✓	✓
Network connectivity	Diffusion	✓	Direct <sup>3</sup> Indirect <sup>1</sup>	✓	✓
Religious Ideology	Ideology		Indirect <sup>3</sup>	-	-
Leftist Ideology			-	-	-

*Note.* ✓ indicates that a significant effect was found in the relevant statistical model.

<sup>1</sup> denotes the extra-legal governance pathway. <sup>2</sup> denotes the group-capacity causal pathway. <sup>3</sup> denotes the social learning and diffusion pathway. See a visual illustration of these three pathways in Figure 4.3. \* The indirect effect from social service provision to kidnapping via illicit market financing was the only path that was found to be non-significant in the path model.

As Table 6.1 shows, the between-group analyses in Chapter 4 and the within-group analyses in Chapter 5 included independent variables measuring the same sets of organisational factors pertaining to preconditions and activities of extra-legal governance, group capacity, operation intensity and diffusion. Specifically, extra-legal governance is operationalised in the

statistical models as the following organisational factors: territory control, state sponsorship, provision of social services to the public, and participation in illicit market financing.<sup>20</sup> Membership size was tested as a factor indicating the strength of group capacity to commit kidnappings. The number of battlefield deaths inflicted (for both the group and its enemy forces) was included as a proxy indicator of the groups' operation intensity. Network connectivity was tested as a factor indicating the possible effects of diffusion and social learning via one's network connections. Additionally, Chapter 4 included variables that are time-invariant or experience little temporal variance: ideological variables and hierarchical command structure. These time-invariant factors cannot be tested in the fixed-effects models for the "within-group" analysis in Chapter 5 because there are no or few temporal changes within the same group clusters to be modelled.

In Chapter 4, the MLRs identified direct effects on the between-group differences in the average level of engagement in kidnappings by violent political groups for illicit financing, state sponsorship, operation intensity and network connectivity. More importantly, the path analysis identified and provided support for three separate pathways through which organisational factors may indirectly influence the numbers of kidnappings committed, especially those non-significant in the MLRs (such as territory control, membership size, religious ideology). First, territory control and network connectivity were found to be indirectly associated with kidnapping via illicit financing. Second, both territory control and

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<sup>20</sup> Although territory control and state sponsorship are important group resource factors and could have fit under "group capacity" as well, they were identified in existing literature to be important pre-condition factors that would enable or exempt a group from the need to establish extra-legal governance to regulate their long-term relationship with the civilian populations in the geographic areas in which they operate.

membership size were found to indirectly predict kidnapping numbers through their direct effects on operation intensity. Third, religious ideology is indirectly linked to kidnapping via its positive association with network connectivity. These three indirect pathways observed in the GTD-BAAD2 data provide support for an explanation of kidnappings by violent political groups being influenced by multiple causal mechanisms. The first mechanism involves the need to exert control and governance in an extra-legal context, which may necessitate the use of kidnappings as a general tool of coercion to compel behaviour compliance. This is also the main theoretical interest of this thesis. The second mechanism concerns the operation intensity of perpetrating groups; the specific numbers of kidnappings committed are influenced by the varying operation intensity of the groups, partly enabled by group capacity factors such as affluence in human resources and control of territories. The third mechanism involves the diffusion of kidnapping via one's network connections, where groups' engagement in kidnapping may be influenced by their social learning from and emulation of allies who are also engaged in the practice. Table 6.1 denoted these three mechanisms with numbers 1, 2 and 3, respectively, for each indirect effect on kidnappings found by the path model.

The analyses in Chapter 5 on “within-group” changes in kidnappings using fixed-effects models also provided support for the three causal mechanisms identified in the path model in Chapter 4. Both the count model and the binary outcome model suggest that the change in the operation intensity and the change in network connectivity of a group predict the change in the group's kidnapping activities over time. Change in membership size and hierarchical structure, however, were found to be non-significant.

For organisational factors related to extra-legal governance, the count model and the binary outcome model led to different results. Both models suggest that the change in territory control status significantly predicts the corresponding change in whether and how much a

group engage in kidnappings. However, the change in a group's provision of social services and participation in illicit market financing were significant predictors only in the binary outcome model. In other words, extra-legal governance activities only significantly predict the corresponding change in whether or not the group would engage in kidnappings in a year, but not the specific numbers of kidnappings committed.

## **6.4 Kidnappings and Extra-legal Governance: Contribution to Theory**

A main theoretical interest of the current study is whether kidnappings by violent political groups may be motivated not only by ransom money or political concessions, but also the need for a group to exert and reinforce control over the social, economic interactions of local populations in a given territory in an extra-legal context. The latter is broadly subsumed under the notion of extra-legal governance. An extra-legal governance explanation of kidnappings does not negate the relevance of other mechanisms that may influence groups' engagement in kidnappings. For example, abundant human resources and higher logistical capacity can make kidnappings easier to accomplish and strategically less costly; network connectivity may enhance the chance of a group emulating the kidnapping practice of its allies. Instead, the "extra-legal governance thesis" for the current study considers that kidnappings are not only a product of capacity competence or emulation, but also a strategic decision influenced by extra-legal governance as a separate mechanism that necessitates or encourages groups' engagement in kidnappings.

Findings from both the analyses of between-group variations in Chapter 4 and the analyses of within-group temporal changes in Chapter 5 provide support for the "extra-legal governance thesis," albeit to varying degrees.

Prior studies on group-level predictors/explanatory factors of kidnappings have emphasised the importance of group capacity factors, such as territory control, membership size, and network connections (Asal et al., 2019; Elster, 2004; Forest, 2012b; Gilbert, 2020b; Rasmussen, 2017). Findings from this PhD research are consistent with the prior studies in finding positive correlations/associations between these group capacity factors and the kidnapping outcome. However, the block-wise MLR procedures and the path model in the between-group analyses suggest that group capacity factors are not directly affecting the variations in kidnapping levels observed in the data. Rather, they may influence groups' engagement in kidnappings via their direct effect on extra-legal governance activities and/or the overall operational intensity of the group (*see* the first two tentative causal pathways in Figure 4.3). These findings regarding the possible structural relationships among the group capacity factors and extra-legal governance factors have important implications for theory. Specifically, territory control was found to have no direct effect on kidnappings, but it may influence kidnapping indirectly through its effect on groups' participation in organised forms of illicit financing activities. This supports the extra-legal governance thesis that groups that control territory are observed to commit more kidnapping not simply because territory control makes kidnappings easier to carry out, but because it allows and/or incentivises violent political groups to engage in governance activities in the first place, which then necessities the use of kidnappings to exert control.

Further empirical support for the extra-legal governance thesis of kidnapping from this PhD research comes from the fixed-effects logistic regression analyses. In this model, groups were found more likely to engage in kidnappings during the time they were providing public social services to their local communities (including education, healthcare, transportation, etc.), or when they engaged in organised forms of financing activities in the illicit markets, such as

extortion, smuggling and drug-trafficking. Notably, the vast majority of kidnappings recorded in the GTD were committed locally within the home countries where the perpetrating groups operated and against the local residents (Forest, 2012a). The association found between the temporal changes in groups' extra-legal governance activities – especially the provision of social services to the public – and the likelihood of kidnappings suggests that kidnappings may be related to the need for violent political groups to exert or reinforce control in extra-legal contexts to restore or maintain a necessary degree of social order for the livelihood of the local communities and to fund the groups' operations.

It is important to note, however, that the count model in the fixed-effects analyses did not find significant effects for either social service provision or illicit market financing. There are a number of possible ways to interpret these findings. It may be the case that once a group has decided to engage in kidnappings, the fluctuations in the numbers committed each year (as measured in the count model) are not sensitive to changes in extra-legal governance activities but respond more to other stimuli, such as changes in groups' capacity and resources, changes in organizational memories and habit, or changes in opportunities. Under this interpretation, the effects of extra-legal governance on kidnappings may be more relevant for the qualitative change in whether or not a group engages in kidnappings at all and less about the quantitative change in how many kidnappings were committed. Alternatively, the results might also be due to differences in measurement validity for the outcome measures in the count model and the logistic regression model. More specifically, the kidnapping counts may be more affected by issues related to missingness problems (discussed in Chapter 3) compared to the dichotomised kidnapping outcome. As a result, the non-significant results for variables related to extra-legal governance in the count model might not be a reliable reflection of their true relationships to kidnapping.

In addition to the variables related to extra-legal governance, operation intensity and network connectivity were also consistently found to be significant predictors of kidnappings in the statistical models, both for the between-group differences and within-group changes. These results reiterate the importance of group capacity and the possible effects of social learning through allies in the diffusion of kidnapping practice as reported in previous studies (such as Asal et al., 2019; Forest, 2012b). However, group capacity and resources, diffusion and extra-legal governance do not work in isolation in their effects on kidnappings. Findings from the current study suggest that there are important structural dynamics among the organizational factors relating to these different causal mechanisms that should be further investigated. The path model of between-group differences in kidnappings discussed in Chapter 4 suggests a possible model of causal mechanisms. According to this model, the territory control status of a group may influence kidnappings through both the extra-legal governance mechanism (by serving as a precondition to implementing extra-legal governance) and the group capacity mechanism by generally enhancing a group's operation intensity. Network connectivity may influence kidnapping both directly through the mechanisms of social learning from allies, as well as indirectly through the extra-legal governance mechanism by boosting participation in illicit market financing (extortion, smuggling and drug-trafficking). These preliminary findings suggest that adopting a structural approach in hypothesis-testing is important. It reveals that the specific predictors of interests can be linked to the outcome through different pathways that represent different causal mechanisms. Moreover, it reminds us that there may be important developmental dynamics between a group's capacity and resources, extra-legal governance activities, and channels of social learning over the years of its operation, as the same organisational factors can influence more than one of these mechanisms. However, little is known about these possible developmental dynamics and future studies on this topic should take this into account.

Overall, findings from this research provide initial support for the idea that extra-legal governance is a relevant factor in explaining violent political groups' engagement in kidnappings. It builds upon the existing knowledge that groups' capacity and resources matter in their engagement in kidnappings (Asal et al., 2019; Forest 2012b) and finds additional empirical evidence that groups' engagement in extra-legal governance activities is associated with the variations between-group and temporal changes within-group in kidnappings. Moreover, this study also identified several caveats regarding the role of extra-legal governance in explaining kidnappings by violent political groups in further refining the theoretical framework.

First, the specific aspects or spheres of life being regulated under an extra-legal governance scheme may have different effects on groups' decisions to engage in kidnappings. This is suggested by the findings from the path model in Chapter 4 that groups' control of territory may influence kidnappings through their engagement in organised forms of illicit financing activities, but not through the provision of public social services. Governance by violent political actors exists in a wide spectrum of forms and involves different levels of coerciveness (Ajorna et al., 2015; Mampilly, 2011). The finding that different spheres of extra-legal governance may necessitate different levels of coerciveness (and therefore correspond with different levels of engagement in kidnappings) makes logical sense and warrants further examination with empirical data in future research.

Second, specific aspects of extra-legal governance may be differently associated with variation in kidnappings between groups and temporal change of kidnappings within a group. As Table 6.1 shows, financial sponsorship from other states was found to be negatively associated with kidnappings in the between-group analyses but was not a significant predictor of temporal changes in kidnapping activities in the within-group analyses. Groups may have a



tendency to continue with what they have been doing and display a continuity of behaviours (Rasmussen, 2017). The transition probabilities of groups' engagement in kidnappings (analysed in Chapter 5) also indicate a high level of autocorrelation for consecutive years of the same group. Findings from this research suggest that future exploration of the theoretical link between extra-legal governance and kidnappings should differentiate the question of what explains differences between groups and what explains the temporal changes over time within the same groups.

Third, the role of extra-legal governance may be different in determining the qualitative difference involved in whether or not to engage in kidnapping versus the specific number of kidnappings committed by violent political groups. This is suggested by the different results from the count model and the binary outcome model in the fixed-effects within-group analyses in Chapter 5. As shown in Table 6.1, extra-legal governance activities – like the provision of social services and participation in illicit financing activities – are only significant predictors of changes in kidnappings in the binary model, not in the count-based model. A theoretical explanation of kidnappings must recognise that extra-legal governance is only one of the many pathways through which organisational factors may influence groups' engagement in kidnappings (*see* Asal et al., 2019; Forest, 2012b; Gilbert, 2020b; Rasmussen, 2017). Once a group has already engaged in kidnappings, the question of how many kidnappings to commit may be more influenced by other mechanisms such as group capacity and resources.

Lastly, the current study finds support for the idea that three distinctive casual mechanisms may influence kidnappings simultaneously: 1) extra-legal governance, which may motivate the use of kidnappings to enforce rules; 2) group capacity, which enables the implementation of kidnappings; and 3) emulation of allies' kidnappings (as visualised in Figure 4.3). However, their effects on kidnappings are likely to be intertwined in a developmental

way, where governance, group capacity and social learning may influence or reinforce each other over time (Ajorna et al., 2015; Mampilly, 21015).

## **6.5 Limitations and Future Research**

The current study has a number of notable limitations. First and foremost, the empirical data used in the current study – the GTD and the BAAD2 – heavily relies on open-source media content, which is known to have various limitations as a source for academic research (Ackerman & Pinson, 2016; Arva & Beielser, 2014; LaFree, 2010). In particular, open-source secondary data may suffer from erroneous media reporting, disinformation efforts by the relevant authorities, human error in data coding and so forth (LaFree, 2010), all of which could influence the reliability of measurements in the current study. A potentially greater problem, however, concerns data missingness. Specifically, kidnapping cases that were not covered in the media or picked up by the screening procedures used by the GTD or BAAD2 teams were omitted from the analyses. Furthermore, kidnapping cases where the identity of perpetrators could not be identified from the available information also had to be systematically excluded from the group-level analyses in Chapters 4 and 5. These “selection processes” can cause potential sampling bias and compromise the validity of findings from the analyses. To the extent possible, Chapter 3 conducted empirical analyses on the patterns of missingness in perpetrator information for GTD kidnappings and examined the evidence on the selection processes that may influence data availability and missingness in the current study. The results suggest that data-missingness may bring bias into the current study in a number of ways. For example, kidnappings in the more recent decades are likely to be more fully represented due to technological advancement and the rise of the Internet; also, kidnapping incidents from geographic areas experiencing armed conflicts are more likely to have missing perpetrator

information and hence be excluded from the study; finally, perpetrators for the kidnappings where ransom were requested and those with higher level of fatality rates are more likely to be identified and recorded in the GTD, and hence more likely to be included in the study. These findings help us better understand the nature and possible size of biases in the data used. However, future research may overcome some of these limitations by collecting an even greater variety of data than GTD already has. Future research may also look to conduct more systematic tests on the extent to which findings depend on various assumptions on the nature and extent of missing data.

Another notable limitation with the data used in the current study concerns the precision and the level of measurements for the selected predictors. Many organisational factors that are of theoretical interest to the current study were measured on a binary scale. For example, to examine the effect of institutional structural efficiency, which is hypothesised to influence the operational cost of logistically complex operations like kidnappings, the current study had to use a binary variable from BAAD2 that measures whether the group has any form of hierarchical command structure. However, the binary coding means that little variation can be found either among groups or within groups in their institutional structural efficiency ( $SD_{between} = 0.42$ ,  $SD_{within} = 0.09$ ). In a similar vein, the membership size measure, based on a four-category coding system rather than the actual estimated number of members, also has a relatively small variance ( $SD_{between} = 0.69$ ,  $SD_{within} = 0.28$ ). It is possible that these organisational features simply do not vary much among the sampled groups and years, no matter how precise the measurements are. However, the lack of observed variance may also be a result of the dichotomization or categorization at the level of the data collection, which would limit the ability to statistically identify a possible relationship to corresponding changes in kidnappings. Indeed, analyses in the current study did not find significant effects for

hierarchical command structure and membership size. It is difficult to assess how much the non-significant results have been influenced by the poor measurement in the current study. Future research may explore alternative ways to measure these organisational features with more precision. More nuanced measures that are sensitive to change over time and that capture more subtle variation between groups would help to better examine the hypothesised mechanisms.

In addition to the constraints of available empirical data, the specific methods employed in the current study also come with their own limitations. These limitations have been discussed separately in the respective discussion sections in each chapter. Here I only try to offer a brief consolidated summary.

The between-group analyses in Chapter 4 employed both block-wise MLRs and path analysis to examine the associations between the relevant organisational factors and the number of kidnappings committed by each violent political group in GTD-BAAD2. A common limitation in these statistical analyses is that the direction of relationships cannot be ascertained, especially when alternative theoretical justifications exist to support both directions. For example, a positive association between network connectivity and kidnapping was found in both the MLRs and the path analysis. This is consistent with my hypothesis that an increased number of network connections would increase the chance of a group acquiring kidnapping practice from its allies through emulation. However, an alternative interpretation compatible with the empirical results may also hold that engagement in kidnappings strengthens a group's control and reputation, which can lead to more connections and allies. The MLRs and path model, by themselves, cannot ascertain in which direction the contemplated causal relationship goes.

The path analysis offered valuable insights into the structural relationship among the independent variables and explored possible causal pathways influencing between-group variations in kidnappings by violent political groups. However, path analysis is largely confirmatory, testing whether the observed data shows consistency with the specified covariance structure based on the relevant theoretical framework (Duncan, 1966; Land, 1969). Thus, path analysis is limited in its ability to compare alternative models and theories. A good-fitting path model does not imply a determination of causation but only informs us that the empirical data does not contradict the patterns expected under the hypotheses being tested.

The within-group changes in kidnappings were examined using a series of fixed-effects models in Chapter 5. These fixed-effects models are known for their ability to control for *time-invariant* group-specific effects that were unobserved in the data (Allison, 2009; Cameron & Trivedi, 2013). This can be particularly helpful for research like that conducted herein, where control for possible confounders is limited by what is available in the secondary datasets like the GTD and BAAD2. However, one limitation with fixed-effects models is that there could be unobserved *time-variant* effects not accounted for in the model. For example, the changing counter-terrorism policies from the relevant government authorities might influence how violent political groups react and engage in certain tactics (Brandt & Sandler, 2009; Wilson et al., 1996). As discussed earlier in the CPI-Maoist example at the start of Chapter 5, kidnapping activities increased in 2009 and 2010 possibly as a result of the intensified subversion activities by the government forces in their controlled areas, especially kidnappings targeted at suspected informers and traitors. In the particular example of CPI-Maoist, the government response was triggered by territory control by the group, which was measured and accounted for in the model. However, situations may exist where governments' repression policy changes due to other

reasons (such as wars, natural disasters, changes in political leadership) not accounted for in the statistical models of the current study.

Chapter 5 focused on explaining temporal changes in groups' kidnapping activities by employing fixed-effects models to control for all unobserved group-specific effects. However, the fixed-effects models are limited in their ability to investigate structural relationships among the independent variables or possible developmental relationships between kidnappings, extra-legal governance, and group capacity. For example, group capacity factors may indirectly influence kidnappings through extra-legal governance activities (like what was found in the path analyses in Chapter 4). There could also be possible lagged effects in how extra-legal governance may influence kidnappings, for example, establishing criminal financing businesses may have its strongest effects in increasing the number of kidnappings in the next year rather than contemporaneously. Whereas the engagement in kidnappings may help strengthen extra-legal governance and group capacity in return. There could also be a non-linear relationship between extra-legal governance and kidnappings, as the need to resort to coercive means (i.e., kidnappings) to compel behavioural compliance may gradually decrease as people may become more likely to voluntarily comply after the strength and legitimacy of the extra-legal governance scheme has reached a certain level. These possible complexities in the relationships between extra-legal governance and kidnappings require using statistical tools, such as dynamic panel models, to disentangle the indirect effects from direct effects, the contemporaneous effects from the lagged effects (Allison et al., 2017), or using polynomial models to test the existence of potential non-linear effects (Hochwarter et al., 2001; Stimson et al., 1978).

Additionally, the different results from the count model and binary outcome model in the fixed-effects analysis suggests a possibility that causal mechanisms involved in the “onset

– offset” of kidnapping practice might be different from those influencing the changes in the volume of kidnappings committed. Future research may consider using survival analysis to specifically examine the “onset” of kidnapping practice by violent political groups may yield interesting results to be compared with the current study.

Most importantly, this PhD research is also limited in how the main theoretical construct – extra-legal governance – is operationalised and measured with empirical data. In this study, I examined the sets of organisational factors pertaining to key aspects of extra-legal governance in their relationships to groups’ engagement in kidnappings: preconditions, spheres of activities, capacity, ideology. Although this study recognised that governance by violent political groups existed in different spheres of life and varying forms of manifested activities, the available data in BAAD2 is limited in how the variations in governance activities can be measured. Specifically, the current study was only able to include binary measures on groups’ provision of social services and participation in organised forms of illicit financing as two main indicators of extra-legal governance activities. Future research may benefit from collecting and analysing data on a more elaborate set of measurements on the types of governance activities, such as taxation, logistics and transportation, business and production, security and protection, dispute-resolution, food and health, education and so forth.

Additionally, an alternative dimension of extra-legal governance that has not been measured or analysed in this study is its strength and stability. It would be interesting to examine how the strength of governance provided by violent political actors in an extra-legal context may change with groups’ employment of coercive measures such as kidnappings. On the one hand, implementing some forms of governance in an extra-legal context may necessarily require the use of coercive means, as argued in this thesis. On the other hand, a greater strength and stability in the governance schemes provided by violent political groups

to the local communities may enhance the perceived legitimacy in their power. The latter may increase voluntary compliance to the rule of the violent political groups (Reisig et al., 2014; Tankebe, 2013), and therefore, a reduced need to resort to violent means such as kidnappings.

Another key limitation of the current research lies in the quantitative nature of the study. Quantitative research can help us understand the patterns and statistical relationships between measured variables in a large sample of data, allowing us to make inferences about the possibility of the observed patterns occurring by chance (Greenland et al., 2016; Steckler et al., 1992). But a purely quantitative approach is limited in its ability to understand the specific contexts and processes in which decisions are made (Faltermaier, 1997; Sale et al., 2002; Sofaer, 1999). For the “extra-legal governance thesis” of kidnapping concerned in this study, these “specific context and processes” could concern how violent political groups “intend” to use a strategy of kidnapping to achieve population-control and behavioural compliance, how members of violent political groups view the functions and costs of kidnappings, what the circumstances are that give rise to the initial abductions of hostages, whether and how groups’ perceptions of the “values” of hostages change over time. Future research on these questions will benefit from more comprehensive qualitative evidence, such as in-depth interviews with individuals who had personal experience with kidnapping events perpetrated by violent political groups, such as surviving hostages or members of violent political groups, and case studies focusing on particular groups or regions involved in kidnappings committed by violent political groups.

## **6.6 Final Remarks**

This PhD study finds preliminary evidence supporting the idea that extra-legal governance is a relevant factor in explaining kidnappings by violent political groups, in addition to the group



capacity and social learning explanations of kidnappings reported in existing literature (Asal et al., 2019; Forest, 2012b; Gilbert, 2020b). As a first step in testing the “extra-legal governance thesis” of kidnapping with empirical data, the current study contributes to our understanding of kidnappings by violent political groups beyond a negotiation-oriented approach focused on kidnapping for ransom or political concessions.

The findings support the hypothesis that variation in kidnappings committed by violent political groups is positively associated with organisational factors related to extra-legal governance, both cross-sectionally between groups and longitudinally within groups. This suggests that kidnapping may function as a coercive tool to compel compliance and enforce social order, to exert or reinforce power and control in an extra-legal context. Findings from the current study also echo what was argued under the organisational process theory and the rational strategic theory in the context of the broader debate of decision-making by violent political groups. In particular, behaviours and decisions by violent political groups can often be explained by their strategic interests and organisational need to survive and prosper.

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## Appendix I      Event Summary: Selected GTD Kidnappings

In the main text of this PhD thesis, kidnapping events recorded in the GTD have been cited as examples to support my arguments in several places. This Appendix provides a collated summary of these kidnapping events, listed by the original GTD event identification number and following the template below:

- ***GTD Event ID*** | Perpetrating Group | Location (Country)

Date: Summary

The content of the event-summary was directly quoted from the “incident summary” section of the respective GTD event-entry. The complete version of the relevant GTD event-entries – containing many more variables coded by the GTD team (including the source information) – can be identified and retrieved using the GTD event identification numbers from <https://www.start.umd.edu/gtd/>.

- ***GTD Event ID: 200903280010*** | CPI-Maoist | India

03/28/2009: On Saturday night, around 2230, about 40 Communist Party of India- Maoist militants kidnapped, shot and killed a local politician, Yakub Kongari, on suspicions that he was a police informer in the Domtoli area of Simdega, Jharkhand, India.

- ***GTD Event ID: 200906070023*** | CPI-Maoist | India

06/07/2009: On Sunday evening, in Padbeda village, Kanker, Chhattisgarh, India, approximately 12 assailants kidnapped two brothers from their home because they were suspected of being police informers. They were later beaten to death by their captors.

- **GTD Event ID: 200908050013** | CPI-Maoist | India

08/05/2009: On Wednesday night at about 0230, in Chilgora village, West Midnapore, West Bengal, India, around 70 cadres of the Communist Party of India-Maoist (CPI-Maoist) took Communist Party of India-Marxist (CPI-M) supporter, Shankar Das Adhikary (38), from his home and shot and killed him for his alleged connection with the police.

- **GTD Event ID: 201003200022** | Lashkar-e-Islam | Pakistan

03/20/2010: On Saturday, in Kamarkhel area in Bara, Federally Administered Tribal Areas, Pakistan, a dozen armed men kidnapped six alleged robbers. The kidnapped persons were identified as Ajmeen, son of Nazeer, Usman, son of Khan Wazir, Meena Gul, son of Tor Ali, Masood, son of Sharif, Lal Muhammad, son of Mohsin Khel and Khan Wazir, son of Lal Akbar Ajmeen, of Orakzai Agency and the rest were residents of Kamarkhel area. The alleged thieves were involved in stealing of telephone cables, medicines, medical equipment and furniture from schools and dispensaries in the area for which the local people were blaming LI men. No group claimed responsibility, although it was widely believed Lashkar-e-Islam (LEI) was responsible. The status of the hostages is unknown.

- **GTD Event ID: 201005260009** | CPI-Maoist | India

05/26/2010: On Wednesday evening, in Gopiballavpur, Nayagram, West Midnapore, West Bengal, India, assailants kidnapped four Communist Party of India-Marxist (CPI-M) members, then assaulted, fired upon, and killed one of the victims. The body of Shatrughan Ghosh, 42, a Group D employee of the CPM-run Patina panchayat in Nayagram, was found by the side of a road in a neighbouring village. Later, the assailants released the remaining victims, Satyajit Giri, the secretary of the panchayat, Gouranga Patra, an assistant secretary, and job assistant Sanat Das, unharmed. According to a villager witness, a group of 15 armed

assailants stopped the panchayat workers' auto-rickshaw on the Nayagram-Gopiballavpur road and asked the four to get out and took off with them towards Chamarbandh near Keshia forest. The Communist Party of India-Maoist (CPI-Maoist) claimed responsibility. Maoist posters, found near the body of the CPM branch committee member, accused him of being a police informer.

- ***GTD Event ID: 201010010003*** | Al Shabaab | Somalia

10/01/2010: On Friday, in Beledweyne, Hiiraan, Somalia, unidentified militants kidnapped 17 youth for wearing trousers extending beyond the ankles and for having foreign hair styles. No casualties were reported, and the status of the hostages is unknown.

- ***GTD Event ID: 201012210003*** | Al Shabaab | Somalia

12/21/2010: On Tuesday, in Mahaday, Shabeellaha Dhexe, Somalia, at least five Somali farmers were kidnapped by unidentified militants for failing to obey the militants' orders. No casualties were reported, and the status of the hostages is unknown.

- ***GTD Event ID: 201101160010*** | Al Shabaab | Somalia

01/16/2011: On Sunday, in the neighbourhood of Lafole on the outskirts of Mogadishu, Banaadir, Somalia, in one of two related attacks, unknown militants took hostage seven Somali women for violating an Islamic decree by not wearing a hijab in public. The status of the hostages is unknown.

- ***GTD Event ID: 201101160011*** | Al Shabaab | Somalia

01/16/2011: On Sunday, in the neighbourhood of Ceelasha Biyaha on the outskirts of Mogadishu, Banaadir, Somalia, in one of two related attacks, unidentified militants took hostage eight Somali women for violating an Islamic decree by not wearing a hijab in public. No casualties were reported in the attack and the status of the hostages is unknown.

- **GTD Event ID: 201106050012** | Al Shabaab | Somalia

06/05/2011: On Sunday, in Dinsor, Bay, Somalia, unidentified militants took hostage five people by unknown means that had been accused of consuming and trading drugs. No casualties were reported, and the status of the hostages is unknown.

- **GTD Event ID: 201106060012** | Al Shabaab | Somalia

06/06/2011: On Monday, in Mogadishu, Banaadir, Somalia, suspected al-Shabaab militants took hostage 10 teenagers from the outskirts of the town by unknown means. They were abducted for playing football, which is outlawed by al-Shabaab because it is rooted in Christianity. No casualties were reported, and the status of the hostages is unknown.

- **GTD Event ID: 201106180009** | Al Shabaab | Somalia

06/18/2011: On Saturday, in the district of Wanlawayn in Jubbada Hoose, Somalia, unidentified militants took hostage nine people by unknown means that had been accused of using drugs; no casualties were reported, and the status of the hostages is unknown.

- **GTD Event ID: 201107050004** | Al Shabaab | Somalia

07/05/2011: On Tuesday, in the village of Lafole on the outskirts of Mogadishu, Banaadir, Somalia, unidentified militants took hostage by unknown means at least 13 Somali

teenagers that had been accused of watching indiscipline films and pornographic videos on their cell phones; no casualties were reported. The status of the hostages is unknown, but several of the teenagers were released soon after being abducted.

- ***GTD Event ID: 201107130008*** | Al Shabaab | Somalia

07/13/2011: On Wednesday, in the Eldher district of Galgudud, Somalia, al-Shabaab members abducted eight individuals by unknown means they accused of being drug users. No casualties were reported, and the status of the hostages is unknown. Al-Shabaab claimed responsibility for the attack in a communication to local press.

- ***GTD Event ID: 201107260007*** | Al Shabaab | Somalia

07/26/2011: On Tuesday, outside Mogadishu, Banaadir, Somalia, suspected al-Shabaab militants abducted 30 women by unknown means for violations of rules regarding the wearing of veils in public. Al-Shabaab claims the women are under arrest and will be jailed. The status of the hostages is unknown.



## Appendix II GTD-BAAD2: Recoding of GTD Kidnapping Records based on BAAD2 Sources

Group Name	Year	GTD Kidnapping	GTD-BAAD2 (Revised)	Notes on Kidnapping Incidents from the BAAD2 Source Document
Al Qa'ida	2008	0	1	Kidnapping of Abdul Khaliq Farahi, an Afghan diplomat, on Sept. 23, 2008. <a href="https://www.nytimes.com/2011/03/03/world/asia/03kidnap.html">https://www.nytimes.com/2011/03/03/world/asia/03kidnap.html</a>
Black Widows	2007	0	1	Kidnapping of two youths - Kushal Chaudhury and Sanju Dev Roy - from Hojai town and demanded about \$4 million in ransom from their families.
FLEC-FAC	1998	0	1	April 1998 saw two Portuguese and nine Angolans abducted by FLEC-FAC. They too were released later in the year for an alleged fee of U.S.\$500,000.
FLEC-FAC	1999	0	1	On March 10, 1999 five people, two Frenchmen, two Portuguese, and an Angolan were feared kidnapped by FLEC separatists. They were working for Byansol, a French engineering company attached to the oil industry. <a href="https://www.hrw.org/reports/1999/angola/Ang1998-05.htm">https://www.hrw.org/reports/1999/angola/Ang1998-05.htm</a>
Islamic Movement of Uzbekistan (IMU)	1999	0	1	On August 9, 1999, 4 IMU militants infiltrated into the Batken region (now Province) of Kyrgyzstan, took hostages (including the mayor), and demanded a \$1 million ransom (Stein, 2013, p.4).
Lashkar-E-Islam (Pakistan)	2008	0	1	Kidnapping of Pakistani doctor, Shakil Afridi, in 2008. A ransom of 1.5 million rupees (about \$15,000 U.S.), but the kidnappers eventually settled for \$10,000. <a href="https://www.nationalgeographic.com/science/article/150227-polio-pakistan-vaccination-taliban-osama-bin-laden">https://www.nationalgeographic.com/science/article/150227-polio-pakistan-vaccination-taliban-osama-bin-laden</a>
Mahdi Army	2007	0	1	Kidnapping of 11 Sunni and Shia tribal leaders in northern Baghdad in 2007. <a href="https://www.longwarjournal.org/archives/2007/10/iraqi_troops_free_tr.php">https://www.longwarjournal.org/archives/2007/10/iraqi_troops_free_tr.php</a>
Mahdi Army	2008	0	1	The cousin of Hareth Adeeb was kidnapped by the Mahdi Army in May 2008 and ransom requested. <a href="https://www.irishtimes.com/news/people-caught-like-meat-in-a-sandwich-1.1215134">https://www.irishtimes.com/news/people-caught-like-meat-in-a-sandwich-1.1215134</a>
Purbo Banglar Communist Party	2009	0	1	"Purbo Banglar Communist Party (PBCP-ML) kidnapped three people and held them for ransom and having failed to realise the money they killed them and buried the bodies in a graveyard." <a href="https://webcache.googleusercontent.com/search?q=cache:4YeP-LBzEfEJ:https://www.thedailystar.net/news-detail-116054+&amp;cd=1&amp;hl=en&amp;ct=clnk&amp;gl=uk">https://webcache.googleusercontent.com/search?q=cache:4YeP-LBzEfEJ:https://www.thedailystar.net/news-detail-116054+&amp;cd=1&amp;hl=en&amp;ct=clnk&amp;gl=uk</a>