

**The criminal governance, geography, and
network features of extortive offences in El
Salvador**

**by
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Thesis Submitted in Partial Fulfillment of the
Requirements for the Degree of
Doctor of Philosophy

in the
School of Criminology
Faculty of Arts and Social Sciences

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Fall 2021

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Abstract

This thesis studies offender choices associated with extortive offences in El Salvador, Central America. Super gangs like MS-13 and Barrio 18 have turned extortion into one of the most important impediments for economic development in various countries of the isthmus. The control, influence, and prevalence of the illicit organizations found in Latin American contexts such as El Salvador, are rare. Criminal actors take advantage of the state's poor governance to rule over large portions of the territory, sometimes establishing secret deals with official authorities to legitimize their power. Yet, little is known about the impact these circumstances have on offender decision-making. Borrowing from political science, the studies in this thesis turn to the criminal governance framework to capture the conditions faced by extortionists during three separate periods in El Salvador's recent history and examine their impact over offender decisions. The findings suggest that closer partnerships between illicit organizations and state agents remove constraints and add incentives that provide offenders with more options, but that these effects are mediated by features associated with crime groups and the contexts in which they operate. Using these results, this thesis proposes a preliminary conceptual model of offender choices in extortion under criminal governance.

Keywords: extortion; criminal governance; MS-13; Barrio 18; offender choices

Dedication

I dedicate this thesis to my wonderful wife, Ana, and my gorgeous daughters, Isa and Elena. Thank you for your love, support, and always bringing a smile to my face.

I also dedicate this thesis to the memory of my father, mi Viejo. Thank you. I am extremely grateful for the time we spent together. Your words and life are truly a source of inspiration everyday.

Acknowledgements

Throughout the completion of this dissertation, I received assistance and guidance from a formidable support network. I am extremely grateful with each person that provided a helping hand, an attentive ear, and wise words.

First and foremost, I want to thank my senior supervisor Dr. Martin Bouchard. You have been terrific mentor and friend. Thank you for your patience, guidance, and support. The effort and care that you invested to ensure my success simply went above and beyond. Thank you for giving me a chance to collaborate with you and for always being willing to provide direction and help at every stage of the process. Your generosity and advice were resolute and paramount. They will not be forgotten.

I also want to thank Dr. Martin Andresen. Thank you for being always available and present. I am grateful for your support and guidance. I particularly appreciate the opportunity to collaborate with you. Your input and help regarding the spatial aspects of the work presented in this thesis were crucial. Similarly, I want to thank Dr. Eric Beauregard for his kindness and insight throughout my dissertation. I especially appreciate your thoughts regarding the theoretical elements of the studies included here. Your comments pushed me to reflect more deeply about the thread that binds the work I present.

Thank you to Dr. Desmond Arias for taking the time to participate as an external examiner in my dissertation committee. It was an honour to have such a distinguished Latin American crime scholar evaluate my work. I appreciate your insightful observations regarding the conceptual aspects in my dissertation. Dr. Anhil Hira, thank you for your thorough review of the studies in my dissertation and your thoughtful recommendations.

I am extremely grateful with my past and present colleagues at the CaIN Lab, particularly Alicia, Masarah, Surena, Krysta, Mitch, and Bryan. Your creativity, brilliant minds, and hard work were always a source of motivation. Thank you for the feedback on many of the ideas and projects that led to this dissertation. I appreciate your openness and warmth, and the opportunity to have access to such an outstanding group of people.

Finally, I want to thank my family. Thank you to my wife, Ana, for accommodating to my work schedule and providing unwavering support and affection. Thank you to my daughters, Isa and Elena, for having such great sense of humour and making me laugh. Laughing with you two helped me power through difficult moments and carry on.

Table of Contents

Declaration of Committee	ii
Ethics Statement	iii
Abstract	iv
Dedication	v
Acknowledgements	vi
Table of Contents	viii
List of Tables	x
List of Figures	xi
Chapter 1. Introduction	1
1.1. Latin American Crime in the Global Context	4
1.2. Organized Crime and Corruption in Latin America	6
1.3. Overlap Between Latin American States and Illicit Organizations	7
1.4. Governance in Latin America	10
1.5. Varieties of Criminal Governance in Latin America	11
1.6. Rational Choice and Criminal Governance	14
1.7. Research Contributions	16
1.7.1. Study 1. Spatial Choices in Ransom Kidnappings	16
1.7.2. Study 2. Offender Choices in Extortion for Protection	19
1.7.3. Study 3. Choices Associated with Interaction Patterns	20
Chapter 2. Spatial Choices in Ransom Kidnapping	23
2.1. Introduction	23
2.2. The Nature of Ransom Kidnappings	24
2.3. Theoretical Considerations for Understanding the Spatial Structure of Kidnappings	27
2.4. Spatial Aspects of Ransom Kidnappings	28
2.5. Aim of Study 1	31
2.6. Data	32
2.7. Analytic Approach	32
2.8. Results	35
2.8.1. Site Concentration and Distribution in Departments and Municipalities ..	35
2.8.2. Distances Between Related Sites	41
2.9. Discussion and Conclusions	43
Chapter 3. Offender Choices in Extortion for Protection	49
3.1. Introduction	49
3.2. The Rational Choice Perspective	51
3.3. Subtypes of Extortion for Protection	51
3.4. Hybrid Extortion	54
3.5. Extortion and Street Gangs in El Salvador	55
3.6. Aim of Study 2	58
3.7. Data	58

3.7.1.	Offender Choice Variables	58
3.7.2.	Local Features	59
3.8.	Analytic Approach.....	60
3.9.	Results	61
3.9.1.	Offender Choice Patterns.....	61
3.9.2.	Extortion Subtypes	64
3.10.	Discussion and Conclusions.....	67
Chapter 4. Study 3. Offender Choices Associated with Interaction Patterns.....		73
4.1.	Introduction.....	73
4.2.	Resilience: A Conceptual Framework	75
4.3.	Resilience in Illicit Organizations	77
4.4.	Study Context: The MS-13 in El Salvador.....	79
4.5.	La Federación and the Resilience of the MS-13	81
4.6.	Aim of Study 3	84
4.7.	Data.....	85
4.7.1.	Focus Groups	85
4.7.2.	Wiretap Data	87
4.8.	Methods to Operationalize Resilience Mechanisms.....	88
4.8.1.	Resilience Mechanisms Under Normal Circumstances	88
4.8.2.	Network Measures and Models to Document Resilience Mechanisms ...	91
4.9.	Results	94
4.9.1.	Resilience Mechanisms Under Normal Circumstances	96
4.9.2.	Resilience Mechanisms and Exceptional Measures	100
4.10.	Discussion and Conclusions.....	103
Chapter 5. Conclusion		108
5.1.	Impact of Unconsolidated and Confrontational Criminal Governance Regimes .	111
5.2.	Impact of Hegemonic and Collaborative Criminal Governance Regimes	114
5.3.	The Mediating Role of Endogenous and Exogenous Features	116
5.4.	Impact of Criminal Governance Regime Shifts	119
5.5.	Conceptual Model of Offender Choices in Extortion Under Criminal Governance	120
5.6.	Limitations and Future Explorations.....	126
5.7.	Policy Implications	128
5.8.	Summary.....	131
References.....		133
Appendix A. Departments of El Salvador		156
Appendix B. Municipalities of El Salvador		157
Appendix C. Offender Choices and Graph Abbreviations.....		160

List of Tables

Table 2.1	Distribution of Sites Across Departments	36
Table 2.2	Distances Between Sites.....	41
Table 2.3	Bi-variate Spearman’s Rank Order Correlations Between Site Distances, Vertice Angles, and Ransom Amounts	43
Table 3.1	High and Moderate Frequency Choices	64
Table 3.2	Low and Marginal Frequency Choices	65
Table 3.3	Case Classification.....	66
Table 3.4	Key Offender Choices and Local Problems	66
Table 3.5	Perceptions of the Police and Responses to Crime	67
Table 4.1	Network Size and Cohesion	101
Table 4.2	Tie Persistence Model for the Cross-sections of Operation “Jaque”	103

List of Figures

Figure 2.1.	Annual Ransom Kidnappings in El Salvador, 1997-2006.....	33
Figure 2.2	Cluster and Outlier Analysis for Sites in Ransom Kidnappings	37
Figure 2.3	Andresen's Spatial Point Pattern Test Applied to the Departmental Distribution of Sites	39
Figure 2.4	Andresen's Spatial Point Pattern Test Applied to the Municipal Distribution of Sites	40
Figure 2.5	Median Distances Between Sites in Urban and Rural Settings.....	42
Figure 3.1	Box map of extortion victims in El Salvador 2013-2015.	57
Figure 3.2	MDS Graph of Extortionist Choices	63
Figure 4.1	MS-13's Organization.....	82
Figure 4.2	Operation "Bosques" Network	97
Figure 4.3	Cross-sections of Operation "Jaque" Network	98
Figure 4.4	E-I Index for Individuals Identified by the keyplayer Algorithm in Each Network.....	100
Figure 5.1	Preliminary Conceptual Model of Offender Choices in Extortion Under Criminal Governance	122

Chapter 1.

Introduction

This thesis examines offender choices in extortive offences in El Salvador, one of Latin America's most violent countries, nestled between Honduras and Guatemala in the Northern Triangle of Central America. Several reports show that this subregion of the Isthmus concentrates some of the world's most extreme levels of violence associated with super gangs such as the Mara Salvatrucha (MS-13) and Barrio 18 (UNODC, 2011, 2014, 2019). Together, these gangs have turned extortion into a regular fixture of everyday life for most Salvadorans and an unavoidable expense for entrepreneurs and businesses of all sizes (Insight Crime & Global Initiative Against Transnational Organized Crime, 2019; International Crisis Group, 2017). Extortive offences thrive in conditions that facilitate the emergence and evolution of illicit organizations that achieve significant local influence and control (Best, 1982; Konrad & Skaperdas, 1997, 1998; Savona & Zanella, 2019; Transcrime, 2009). In Latin America, particularly in the Northern Triangle of Central America, the prevalence, scope, and magnitude of such conditions are more severe than in places typically examined by criminological research, frequently involving a strong collaboration between illicit organizations and state agents. Studies that explore how criminal behaviour is affected by this intense dynamic are scarce. This thesis turns to the criminal governance framework, developed by political scientists, to explore offender choices in extortive crimes in the distinct conditions under which countries in Latin America, such as El Salvador, function.

A fresh and promising intellectual movement, known as Southern Criminology, recognizes that criminological research focuses almost exclusively on the Global North, notes the shortcomings and consequences derived from this constrained view of crime and calls for a wider-reaching, more inclusive field (Travers, 2017). Academics from diverse branches in criminology recognize the discipline's predominant focus on the Global North, albeit each through their own distinct lens. Crime scientists, for instance, frame the need to expand the geographical boundaries that usually restrict research as an ethical obligation. Natarajan (2016) acknowledges that the crime problems found in the developing world are much different than those in industrialized nations and, furthermore, points out that they are notably complex. She argues that crime scientists

have the duty to help this region of the world find evidence-based solutions to crime (Natarajan, 2016). Critical criminologists offer a more revolutionary and suggestive perspective. Aas (2012) questions the generalizability of criminological theories and premises to explain the realities in countries of the Global South. She argues that the extreme forms of crime observed in this region of the world and the contexts in which they emerge, deviate from those found in Western societies and, therefore, do not conform with some of the basic assumptions made by western-centric criminological theories (Aas, 2012). Aas (2012) encourages criminologists to reflect on the current limitations of the field, expand the self-enforced geographic circumscription of their work, and seek inspiration in other disciplines.

The most captivating and cohesive conceptualization of the movement that pushes for inclusiveness in criminology, is Carrington, Hogg, and Sozzo's (2016) *Southern Criminology*. Advocates of this framework note that 85% of the world's population and an important portion of the globe's law enforcement agents and inmates are found in the Global South, yet criminological theories and research tend to be northern-focused (Carrington & Hogg, 2017). Indeed, world crime patterns and trends reveal that there is a longstanding North-South divide in the spatial distribution of crime, which has notably broadened over the last decade (van Dijk, Nieuwebeerta, & Joudo Larsen, 2021). Carrington & Hogg (2017) observe that some nations in the Global South, particularly those in Latin America, are characterized by the ubiquity of extreme violence, powerful illicit organizations, and poor governance. They propound that this reality deviates from the stability and role of the state assumed by criminological theories, which were devised to explain the relatively contained crime issues persistent in pockets that escape the tranquility experienced by the vast majority of those who reside in the Global North (Carrington & Hogg, 2017). *Southern Criminology* does not discard current criminological theories. Rather, it suggests that the distinct reality of the Global South can help refine and augment current conceptual and theoretical constructs (Carrington & Hogg, 2017; Carrington et al., 2016; Carrington, Hogg, & Sozzo, 2018). Furthermore, advocates of *Southern Criminology* argue that turning our attention to areas of the world rarely featured in criminological research can help elucidate our understanding of the interaction patterns and transnational criminal activity that impacts both the North and South, contributing in this way to the improvement of global security and justice (Carrington & Hogg, 2017; Carrington et al., 2016). In the Latin American context, it is

particularly important to improve our understanding of how the region's extreme circumstances influence offender decision-making not only to design more successful policies (Jaitman, 2019), but also to help criminal justice move away from the punitive *mano dura* (iron fist) approaches so prevalent among populist leaders in the tropics (Cruz, 2013; Rosen, 2021; Wolf, 2017), which resist to disappear despite various warnings about their counterproductive effects (Cruz, 2010; Rosen, 2021; Rosen & Cruz, 2019; Wolf, 2017).

The criminal governance framework is widely used to describe and explore contexts such as those found in the Global South, in which illicit organizations enjoy a remarkable degree of local influence and control (Mantilla & Feldmann, 2021). It broadly refers to circumstances in which illicit organizations rule over communities and territories, frequently in collusion with state agents and politicians (Lessing, 2021). Criminology's contribution to the conceptual and empirical advancement of our understanding of criminal governance has been limited. Political scientists dominate the literature on the subject. Borrowing from a variety of fields, including criminology, they have formulated theoretical explanations and framed their work (Mantilla & Feldmann, 2021). There is a lack of studies in which this interdisciplinary crosspollination goes the other direction, with criminologists using or expanding on the contributions made by political science to the literature on criminal governance. This thesis uses the conceptualizations of criminal governance, proposed by political scientists, to examine distinct features of extortive offences from a rational choice perspective. Specifically, it investigates offender choices in extortion under distinct forms of criminal governance.

Each investigation in this thesis focuses on a separate period of El Salvador's recent history that differ in terms of the type of interaction that existed between the state and illicit organizations. Offenders in Latin America navigate a different set of constraints and incentives largely because of the power wielded by illicit organizations and the low probabilities of being punished for the commission of crimes (Jaitman, 2019). The literature that examines criminal governance identifies a wide spectrum of relationships between authorities and crime groups, which go from open confrontation between parties to full integration of state and criminal actors (Arias, 2017; Barnes, 2017). Understanding offender decision-making under the singular conditions in Latin America is vital to design effective policies, particularly those aimed at influencing decisions made by perpetrators (Jaitman, 2019). The constraints and incentives faced by offenders

depend on the nature of the criminal governance arrangement that is in place. By examining separate periods, this thesis looks at how different types of criminal governance in El Salvador, which vary in terms of the relationship between public officials and illicit organizations, affect offender choices in extortion.

Each investigation focuses on different types of choices associated with extortive offences. The first study concentrates on a time point in which illicit organizations had limited territorial influence and control, and their collaboration with state agents was narrow or non-existent. Under these conditions, the investigation focuses on the choices associated with the geography of ransom kidnappings by analyzing the spatial structure of abduction, captivity, and release sites. The second study concentrates on a period in which there was a strong collaboration between illicit organizations, public officials, and politicians. The investigation analyzes offender choices across the crime commission process of extortion for protection under this governance arrangement. The period analyzed in last study focuses on the termination of the collaboration between the state and illicit organizations. This investigation moves away from choices associated with the crime commission process and focuses on the interaction patterns that shape the network structure of illicit organizations involved in extortion for protection and their resilience mechanisms, which result from choices aimed at achieving a desired balance between security and efficiency.

The rest of this introduction provides an overview of crime in Latin America to contextualize the global and regional relevance of criminal governance, as well as its significance in generating conditions that affect offender choices. Finally, a summary of the contributions of each study is included.

1.1. Latin American Crime in the Global Context

Latin America stands out in the world's crime patterns and trends, concentrating a disproportionately high percentage of lethal violence. Collectively, Latin American countries hold only 9% of the world's population, but generate 33% of homicides (Granguillhome Ochoa, 2017). Between 2006 and 2017, the region reported the highest average homicide rate with 32 per 100,000, which is four times the world's average rate for the same period (van Dijk et al., 2021). The difference is even more prominent between the region and countries of the Global North, like the United States and

Canada, where homicide rates during the same period averaged 5 and 2 per 100,000, respectively (van Dijk et al., 2021). During the great crime drop that started in the 1990s in North American countries, Latin America, conversely, experienced a sharp increase. Between 1995 and 2010, while homicide rates decreased in North America, they soared in Central America (UNODC, 2011).

Some of the crime issues prevalent in Latin America are rarely found in other countries of the hemisphere and, if they are, they are significantly less severe. For instance, although there are illicit organizations involved in drug trafficking all over the world, including the Global North, the pervasiveness, power, and bluntness of those found in the Latin America are seldom observed elsewhere. The *narcomantas* or *narcomessages* in Mexico illustrate the peculiar nature of crime in the region and the singularity of the contextual dynamics in which it emerges. Mexican Drug Trafficking Organizations (MDTOs) used *narcomantas* (i.e., large banners with printed messages) to publicly acknowledge the commission of gruesome murders. Bodies were abandoned in highly visible areas with *narcomantas*, so that people knew who perpetrated each crime and why. Atuesta (2017) argues that the emergence of *narcomantas* was an unintended consequence of the beheading strategy employed by Mexican authorities against MDTOs. She explains that the incarceration and killing of leaders led to the fragmentation of MDTOs, creating smaller groups that competed among themselves and pushed each other to publicly take responsibility for the murders they committed (Atuesta, 2017). The omnipresence of the violence generated under such conditions and the existence of multiple competing groups, hindered the deterrent effect of killing snitches, for instance, unless the reason and perpetrators behind the crime were clearly stated.

Indeed, the level of organized criminal activity in Latin America differs from that found in other parts of the world. In their study of crime in 155 countries, Van Dijk et al. (2021) measured exposure to organized crime and corruption through a composite index that combines indicators and scales from various world surveys. The results of their investigation show that Latin America and Africa had the highest level of exposure to organized crime and corruption with an index of 68 out of 100, which is notably higher than the index for North America and Europe, which scored 38 and 40, respectively (van Dijk et al., 2021). The relatively high influence, territorial control, coordination capabilities, and bargaining power exhibited by gangs and organized crime groups in

Latin America are uncommon. Many of these organizations have used this relative advantage to launch large scale challenges against official authorities. For example, in Brazil, the criminal group born in Sao Paulo's prison system known as Primeiro Comando da Capital (PCC), organized and led a seven-day offensive in May 2006 that involved the synchronized uprising of inmates in 74 correctional facilities around the country and attacks against police stations, killing 31 police officers and 8 prison guards (Dias & Darke, 2016). In El Salvador, journalists documented a murderous campaign launched by the Mara Salvatrucha gang (MS-13) against police officers and their families between 2015 and 2016, after its secret deal with the state had dissolved. According to journalists' accounts, at least 120 members of Salvadoran security forces were murdered during this period (Alonso, 2016; Daugherty, 2015; Gagne, 2016). The amount of pressure and helplessness experienced by Salvadoran police officers under these conditions was overwhelming. Consequently, an unprecedented number of police officers resigned and requested asylum in other countries, moved by fear of gang members targeting their families (Alonso, 2016).

1.2. Organized Crime and Corruption in Latin America

Organized crime groups and gangs hold an asphyxiating grip over a large portion of the population in Latin America through violence, fear, and dealings with key actors. Journalists' descriptions convey a vivid account of how these groups have terrorized cities, and, in some cases, even entire countries to accomplish specific objectives, leaving little doubt about the great influence and control they have. For instance, in February 2020, the Ejército de Liberación Nacional (ELN), a Colombian guerrilla group heavily involved in drug trafficking, launched a massive offensive campaign that brought several departments in Colombia to a halt through attacks against the electrical grid and law enforcement, coordinated road closures, bomb threats, the placing of explosive devices in public spaces, and sniper attacks, all actions aimed at forcing the Government to engage in peace negotiations (Villalba, 2020). In Mexico, after the son of reputed drug kingpin Joaquín "El Chapo" Guzmán Loera, Ovidio Guzmán, was detained in 2019 during a police raid, a small army of heavily armed men from the Sinaloa Cartel quickly surrounded the building where the arrest took place and turned the city of Culiacán into a war zone, raising havoc until the federal government ordered the release of its detainee (Asmann, 2019). Sometimes, however, the overwhelming pressure

applied by organized crime groups and gangs is permanent, not sparked by specific situations. Over the last decade, for example, the harsh methods used by street gangs in the Northern Triangle of Central America to rule over neighbourhoods, has triggered a forced displacement crisis without precedent, pushing people and even entire communities to move or migrate against their will (Cantor, 2014).

The seemingly uncontested tight hold that criminal organizations have over a significant portion of Latin America is both allowed and fueled by the poor quality of governance in the region. Ungar (2013, 2016) explains that there is an overlap between state and nonstate armed actors, such as vigilante groups and illicit organizations, that creates an interdependency based on corruption, complementation, and lack of accountability and transparency. The conditions that allowed this dynamic to develop and perdure are attributable to several processes particular to Latin America and its recent history. Ungar (2013, 2016) notes that criminal justice systems across the region have experienced radical changes ignited by modernization and democratization processes. Several countries have decentralized and demilitarized police services following the end of internal armed conflicts, many have undergone a transition from inquisitorial to adversarial judicial proceedings, and a large portion have enacted laws to award prosecutors control over criminal investigations and simultaneously relegate the police to serve an auxiliary role (Ungar, 2013, 2016). Despite the benefits that these changes were intended to bring, they debilitated the state's capacity to exercise social control. In many cases, public institutions were unable to meet the challenges brought on by the changes due to lack of resources, excessive bureaucracy, and, in some instances, even deliberate obstruction. Their inability to keep up, Ungar (2013, 2016) argues, invariably created a power vacuum which was exploited by nonstate armed actors to take over governance roles, sometimes even in collusion with authorities who use them to avoid legal restrictions that impede the implementation of questionable policies or to take advantage of their local influence for electoral purposes.

1.3. Overlap Between Latin American States and Illicit Organizations

Latin America is plagued with examples that illustrate the overlap between the state and illicit organizations. In El Salvador, for instance, at least nine mayors have been charged since 2016 for crimes committed in collaboration with the MS-13 and

Barrio 18 gangs (Flores, 2021). Journalistic and criminal investigations have exposed partnerships between officials from across the country's political spectrum. The case of former mayor Elías Hernández is particularly illustrative. He was elected mayor of Apopa for the 2012-2016 term running for El Salvador's right-wing party, the Nationalist Republican Alliance (ARENA.) Apopa is one of the most populous municipalities in the greater metropolitan area of San Salvador, the country's capital city. During his administration, Hernández developed a strong partnership with the local Barrio 18 clique. According to a criminal investigation that ended with his arrest and conviction, the former mayor hired gang members to serve as municipal police officers to enforce city ordinances (Avelar, 2017). Hernández even designed and implemented a mechanism to conceal, collect, and deliver extortion payments for the gang through a tax increase imposed on local municipal market vendors (Avelar, 2017).

In countries like El Salvador, dealings between politicians and street gangs are found at all levels of government, from local officials to the highest offices in the executive branch. An excellent example that speaks to this point is the case of former president Mauricio Funes, elected for the 2009-2014 term running for the leftist party Frente Farabundo Martí para la Liberación Nacional (FMLN). Prosecutors recently issued arrest warrants against him and General David Munguía, who served as minister of Justice and Public Safety and minister of National Defense at different points during his term in office, for crimes perpetrated in collusion with MS-13 and Barrio 18 (López, Cáceres, & Jurado, 2020). Similarly, a journalistic investigation recently revealed that Nayib Bukele, current president of El Salvador, struck deals with both street gangs during his term as mayor of San Salvador (Martínez, 2018) and later in his political carrier, when he was elected president (Martínez, Martínez, Arauz, & Lemus, 2020). Bukele was elected mayor running for the FMLN but ran for president under the Gran Alianza para la Unidad Nacional (GANU), a party founded by ARENA dissidents who decided to leave and create their own party after former president Antonio Saca was purged from ARENA. Saca served as president between 2004-2009 and is currently in prison serving a sentence for corruption and money laundering.

Criminal organizations and authorities are generally considered antagonistic parties to an ongoing conflict. This is a core assumption in some criminological theories developed in the Global North. However, as the examples above suggest, in Latin America, both state and criminal actors take on roles that do not fit neatly into this

dichotomy. Criminals, politicians, and officials collaborate, and, in doing so, create a vicious, self-perpetuating cycle that prevents economic and social development, holding citizens hostage in a bizarre governance dynamic, in which heroes and villains are not easily distinguished. Ungar (2016) argues that crime is a central feature of three networks of security providers that operate in countries such as those in Latin America: policy-making networks (governmental officials, legislators, and political parties), criminal justice networks (prosecutors, judges, correctional officials, and police services), and non-state networks (private security firms, vigilante groups, rural militias, and social cleansing squads.) The overlap between these networks is fueled by the interests of those involved, which are not necessarily aligned with public safety, and strengthened through policy corruption (Ungar, 2016). Ungar (2020) illustrates this dynamic through an examination of illegal arms trafficking in Central America. Drawing from multiple information sources, he pieces together a scenario in which army arsenals are portrayed as a central supply source of heavy weapons for street gangs and drug trafficking organizations across the isthmus (Ungar, 2020). Ungar (2020) suggests that public institutions, legal frameworks, and official enforcement strategies are tailored to accommodate and perpetuate the existence of these dealings and, therefore, of the crime groups they serve.

Under such conditions, public officials may not be interested in debilitating organized crime groups or gangs. Rather, they may act in favour of their subsistence and even deliberately facilitate their growth, so that business can continue uninterrupted. In some cases, authorities in Latin American countries choose to keep non-state armed groups robust and strong because it helps their political and electoral interests. Tokatlian (2007, 2011), for instance, describes how public officials neglected to fight paramilitary groups in Colombia, even though they engaged in narco trafficking, and focused their attention on dismantling insurgent groups like the Fuerzas Armadas Revolucionarias de Colombia (FARC) and the ELN. He argues that authorities were interested in eradicating guerrilla organizations and, therefore, left paramilitarism unscathed so these groups could continue fighting the FARC and ELN (Tokatlian, 2011). In Venezuela, not only did the Chávez regime not go after urban paramilitary groups known as *colectivos*, which used violence to support the government and suppress dissidence, it also provided them with training, firearms, and helped recruit criminals to their ranks (Werlau, 2014).

The instrumentalization of crime groups to advance electoral interests is also frequently found in Latin America. Politicians forge alliances with criminal groups and gangs to mobilize electoral support and repress open and suspected supporters of rival political parties (Albarracín, 2018). For example, in El Salvador, prosecutors recently charged Norman Quijano and Ernesto Muysshondt, former presidential candidate and former mayor of San Salvador, respectively, for colluding with MS-13 and Barrio 18 to influence the 2014 presidential elections. Journalistic and criminal investigations revealed that after their party, ARENA, was defeated in the first electoral round, Muysshondt was ordered to meet with gang leaders to offer thousands of dollars in a cash payment and promise a chance to influence criminal justice policy in exchange for their support in the second round of elections (Cáceres, 2020; Labrador, 2014; Labrador & Ascencio, 2016).

1.4. Governance in Latin America

The examples described in the previous section illustrate the complex nature and wide variety of arrangements that exist between states and illicit organizations in Latin America, as well as the central role they play in fueling and shaping crime in the region. There is a growing body of literature in the social sciences that investigates such arrangements under the criminal governance framework, which is used to conceptualize these interactions, the impact they have over the functioning of societies, and their effects regarding the distribution of power (Arias, 2006, 2017, 2019; Lessing, 2021; Mantilla & Feldmann, 2021). Undoubtedly, these regimes create drastic differences between Latin America and the Global North.

Although criminal governance arrangements can be found in developed nations, they are quite limited, generally reduced to circumscribed geographic pockets and, therefore, not as prevalent or widespread as in Latin America (Lessing, 2021). The discrepancies that exist between these differing conditions carry important implications that can help refine criminological explanations and concepts, which were developed to explain the distinct dynamics found in societies of the Global North. For example, Arias (2019), one of the most respected and active criminal governance scholars, argues that North American ecological approaches in criminology need to be modified to apply them in Latin America because they are based on a rather simplistic assumption about state practices that does not account for the types of relationships frequently forged between

authorities and illicit organizations in the tropics. He theorizes that the mobilization of civil society needed to achieve collective collaboration and rule-setting, may be more complicated because its approach must be tailored to navigate and overcome the challenges imposed by the specific type of arrangement that exists between the state, illicit organizations, and civil society (Arias, 2019).

Similarly, the kind of understandings or allegiances that exist between actors can have an impact over offender decision-making. Rational choice approaches in criminology assume perpetrators make decisions based on the risks, costs, and rewards they associate with committing crimes (Cornish, 1994a; Cornish & Clarke, 1986). The collaboration between illicit organizations and the state can uniquely affect the perceived benefits and consequences of offending. Such conditions blur the line between legality and illegality, making certain proscribed behaviours widely justifiable and acceptable (Moriconi, 2018). For example, Bohn (2012) identified that a significant portion of respondents in a survey conducted in twenty four Latin American countries, indicated that they approved paying corruption bribes to overcome delays associated with state bureaucracy. The singular view these individuals have over this specific crime is recognized in the study by grouping them under the category adequately designated as rational-choice corruptors (Bohn, 2012). Similarly, illicit economies are widely supported in rural contexts of Central America which are dominated by drug traffickers (Blume, 2021). These individuals, who would be viewed as evil in most of the Global North, are respected and liked in large parts of Latin America.

1.5. Varieties of Criminal Governance in Latin America

Criminal governance arrangements vary in important respects, particularly in the types of organizations that seek to establish their own rules outside the existing legal framework. Lessing (2015) distinguishes between rebel and criminal groups that take over governance roles. This differentiation is significant considering the peculiar nature of some illicit organizations in Latin America. For example, although the FARC originated and developed its territorial stronghold as a rebel group, it eventually became a central player in the international drug trafficking scene and got involved in a variety of local criminal rackets (Otis, 2014). Similarly, some criminal organizations engage in acts that resemble attacks launched by terrorist groups (Lessing, 2015). Cases like these suggest that there is an important overlap between criminal and rebel governance that requires

special consideration, which has sparked debate among scholars regarding whether they should be considered as separate or intertwined phenomena (Mantilla & Feldmann, 2021). The current investigation embraces the latter, more inclusive approach which allows for a more nuanced understanding of criminal governance, identifying various types of arrangements and a wide array of organization types. Consequently, the studies in this thesis adopt the broad definition of criminal governance postulated by Lessing (2020, p.3): “the imposition of rules or restrictions on behavior by a criminal organization.”

Given the heterogeneity found within criminal governance, a relatively recent body of literature focuses on the development of typologies that capture the different shades that exist in the interaction between states and illicit organizations. Koivu (2018), for instance, distinguishes between arrangements that favour the state and those that benefit the ruling group. She proposes a typology for the former and identifies state-criminal organization understandings aimed at economic development and political consolidation (Koivu, 2018). Koivu (2018) notes that the context and businesses in which illicit groups operate pushes them to build either coercive or economic skills, which determines the outcome produced when states opt to confront or collaborate with them. She argues that collaboration with coercive groups generates political gains and collaboration with non-coercive groups produces development in certain economic sectors (Koivu, 2018). Koivu (2018) notes that confrontation, conversely, produces a violent competition with coercive organizations, while it forces non-coercive groups to adopt evasive measures or move away.

Barnes (2017) and Arias (2017) propose less restrictive, more refined typologies for the kind of arrangements that develop between the state and criminal actors in Latin America. In his classification scheme, Barnes (2017) places arrangements along a continuum that goes from high competition between the state and illicit organizations to high collaboration between the two parties. He observes that some criminal actors openly confront the state, while others do not engage in direct altercations but also do not collaborate with authorities (Barnes, 2017). Additionally, Barnes (2017) identifies two types of collaboration between the state and illicit organizations. He notes that, sometimes, they establish formal or tacit allegiances and, in other occasions, criminal organizations are integrated to the state (Barnes, 2017). Arias's (2017) typology for micro armed regimes is arranged in quadrants, which consider two dimensions: criminal

consolidation and state proximity. He distinguishes four types of governance arrangements and the differing ways in which they affect security, civic mobilization, elections, and governance (Arias, 2017). Arrangements in which the collaboration between the state and illicit organizations is limited are classified by Arias (2017) as either “criminal disorder” or “divided governance.” In “divided governance,” he includes criminally consolidated illicit groups able to influence electoral outcomes, policy development, and local civic movements, while maintaining violence under control (Arias, 2017). Arias (2017) designates arrangements with less consolidated criminal groups more likely to generate high levels of violence into two types: “criminal disorder” and “tiered governance.” In the latter regime, he explains, the state establishes collaborative relationships with illicit organizations to instrumentalize their disposition to engage in violence and crime to influence civil movements, elections, and governance (Arias, 2017). The highest level of collaboration described by Arias (2017) is the “collaborative governance” regime, in which the state and consolidated illicit groups develop strong arrangements that provide criminals with great influence and control over violence, civil society, elections, and governance.

The volatility exhibited by governance regimes adds a layer of complexity. Collaborations between state and illegal actors are not static. Rather, arrangements are fragile and transitory, subject to drastic changes caused by different circumstances. Snyder and Duran-Martinez (2009) identify several features associated with the type of regime sought by illicit organizations and state agents. They note that the number of both official agencies and illegal actors that operate in the field, as well as the capacity of both parties to reach agreements and follow through, influence the types of understandings that emerge (Snyder & Duran-Martinez, 2009). In certain cases, the incarceration, death, or removal of key individuals may change the way the state and illicit organizations interact. The fluctuation of homicides in El Salvador illustrates this point. The Salvadoran government, as mentioned previously, established an agreement with top gang leaders from the MS-13 and Barrio 18 gangs to drive down homicides. Research reports identify General David Munguía, appointed minister of Justice and Public Safety in 2012, as the mastermind and main operator behind this understanding (Aguilar, 2018, 2019). When he stepped down after the Supreme Court of El Salvador found his appointment unconstitutional and ordered his dismissal, his replacement struggled to keep the arrangement going (Dudley, 2020). Similarly, in Mexico,

understandings between the state and MDTOs have pivoted between confrontation and collaboration due to shifts in the political and criminal landscapes (Trejo & Ley, 2016, 2018).

1.6. Rational Choice and Criminal Governance

The conditions generated in some Latin American countries by powerful illicit organizations and their collaboration with state actors, provide distinct incentives and constraints that influence offender decisions. The rational choice framework assumes that offender choices are influenced by the assessment of the risks, costs, and rewards associated with available alternatives at each step in the execution of offences (Clarke & Cornish, 2018; Cornish & Clarke, 1986). These calculations do not necessarily follow a logic that adheres to a universal notion of rationality; rather, they are guided by situational and individual aspects that calibrate the offender's perception of the gains and pitfalls linked to the commission of crimes and the tasks this entails (Coyne & Eck, 2015). The criminal governance literature identifies various types of governance regimes, which vary in terms of the role, legitimacy, power, influence, and authority awarded or usurped by illicit organizations. Each criminal governance arrangement generates distinct conditions that affect the risks, costs, and rewards perceived by offenders and, therefore, shape their decisions differently. Improving our understanding of how these conditions affect offender choices is vital to better address and prevent their crimes (Jaitman, 2019).

When illicit organizations strike deals with the state that legitimate and enhance their local authority and power, it alters the rules that shape their offending patterns. Such circumstances remove constraints and add incentives for offenders who belong to the illicit organizations that collude with authorities. These changes push individuals to perpetrate offences in ways that may seem unsophisticated or irrational by Global North standards but reflect quite the opposite in the South. The collaboration with government officials and the authority role adopted by illicit organizations, provides them with a great deal of power and influence, loosens the rules in their favour, and, therefore, frees their members to act more bluntly and openly. For example, the amount of power and influence exercised by MDTOs and the context in which they operate, both allowed and pushed them to start publicly taking responsibility for violent crimes through narcomantas (Atuesta, 2017). Some criminal governance arrangements are even based

on the state's calculated instrumentalization of illicit organizations aimed at coercing citizens (Arias, 2017; Koivu, 2018). For instance, in El Salvador, political parties across the ideological spectrum have established deals with gangs to intimidate voters and even to deliberately increase homicides for electoral purposes (Aguilar, 2019). The visibility generated by such open use of violence may be interpreted under other conditions as unrefined because of the attention it would attract to the illegal operations associated with the illicit organizations behind it. However, in the context of the criminal governance arrangements in which this violence occurs, an alternate and arguably more accurate interpretation would be that it is not a sign of unsophistication but of the power and dominance derived from collaborative relationships between illicit organizations and the state.

The literature that explores criminal governance also identifies regimes that produce circumstances which impose constraints to illicit organizations more consistent with what would be typically expected in the Global North. In these conditions, crime groups must remain vigilant to avoid detection and arrests. Both Barnes (2017) and Arias (2017) describe competitive arrangements between illicit organizations and official authorities. Arias (2017), for example, describes how several efforts launched by the Colombian government in Comuna Trece, located in west Medellín, broke the existing order based on understandings between illicit organizations and a diverse set of social actors. Ultimately, this generated a significant fragmentation that provoked the emergence of several, less criminally consolidated groups that controlled limited areas, were unable to forge allegiances, and had to deal with the steady presence of security armed forces (Arias, 2017). Similarly, Barnes (2017) describes how the Salvadoran government launched an offensive against MS-13 and Barrio 18, after their collaborative relationship deteriorated. In this type of context, the costs and risks faced by illicit organizations are much different. Not having a cooperative relationship with authorities places more stringent limits on offending patterns to avoid detection and apprehension.

These examples also illustrate the volatile nature of criminal governance arrangements and the conditions that shape offender choices. Circumstances may additionally be location specific, varying from one place to another. For instance, Arias and Barnes (2017) explain that plural security orders exist in cities in which the territory is divided in areas ruled by illicit organizations and those governed by the state. Even in collaborative arrangements, authorities may share governance with illicit organizations

based on the premise that their area of influence and control is limited to certain geographical circumscriptions. In non-collaborative regimes, such as in the one described previously in the case of Comuna Trece, delimitations are unilaterally defined by each party. The existence of plural security orders further affects how offenders perceive costs and risks associated with offending. Perpetrating crimes in areas controlled by illicit organizations may not involve the same consequences than doing so in other places, regardless of whether a collaboration with the state exists or not. They are governed by a different set of constraints and incentives.

1.7. Research Contributions

Despite the impact that criminal governance regimes have over the logic behind offender choices, the effect of such conditions in offences prototypically associated with such settings, like extortion, has not been investigated. The three studies in this thesis examine offender choices in extortive offences in the context of Latin American criminal governance. Each study concentrates on a separate period of El Salvador's recent history to investigate offender choices associated with different aspects of extortion relevant to the specific governance regime in place at each time point. Collectively, studies aimed to determine whether a higher degree of collaboration between illicit organizations and state agents placed less restrictions on offender decisions and provided more incentives.

1.7.1. Study 1. Spatial Choices in Ransom Kidnappings

The first study focuses on offender choices during a transitional period in El Salvador's history, marked by modernization and democratization processes that followed the 1980-1992 internal armed conflict. Several drastic renovations affected the functioning of the criminal justice system. The first one was introduced by the peace treaty that ended the conflict, which included an agreement that took away law enforcement services from the military and called for the creation of a new police force under civilian control (Call, 2007; Costa, 1995; Cruz, 2006; Stanley, 1995). The countrywide deployment of the new law enforcement agency was completed until 1994 and, in the years that followed, police commanders struggled to face their mandate effectively (Call, 2007; Costa, 1995). The functioning of the Salvadoran criminal justice

system was further impacted by two other important changes, which involved an adaptation period, faced resistance from key actors, and overwhelmed institutions that were entrusted with new responsibilities: (1) the control of criminal investigations was taken away from the police and entrusted to the Attorney General's Office; (2) judicial proceedings moved from an inquisitorial to an adversarial model (Popkin, 2000).

During this period, local governance regimes were essentially competitive and non-collaborative. The public apparatus struggled to keep up with changes associated with its renovation and the demands imposed by the hectic post-conflict setting, while criminal networks grew and took advantage of vulnerable spaces. After the conflict ended, crime in El Salvador was fueled by a variety of factors that empowered and facilitated the emergence and functioning of illicit organizations. The country had an excess of illegal firearms left over from the armed conflict, which provided easy access to high-powered weapons (Cruz & Beltrán, 2000). El Salvador's crime scene mutated to an eclectic matrix of illicit organizations that exploited available crime opportunities, which consequently led to the development of coercive skills in some and economic skills in others. Street gangs and other criminal groups were all trying to get a foothold. MS-13 and Barrio 18 made their way to El Salvador during the mid 1990s, after the armed conflict ended and changes to immigration laws in the United States triggered the massive deportation of Salvadorans who had fled North during the war (Cruz, 2010; Rosen & Cruz, 2019; Wolf, 2010, 2011). Additionally, thousands of demobilized soldiers and guerrilla fighters, who suddenly found themselves without a job after the conflict ended, adopted a criminal lifestyle and engaged in an ample array of illicit activities (Ponce, Woods, & Skelton, 2005). This created an active, diverse, and unconsolidated collection of groups that populated the country's underworld, which took advantage of the slow adaptation of the criminal justice system to the changes brought on by its modernization.

In the late 1990s, illicit organizations started to progressively view ransom kidnapping as a low-risk, high-reward offence, which ultimately sparked an epidemic that included victims across the socio-economic spectrum (Ponce et al., 2005). The quantity, heterogeneity, and relatively unsophisticated structure of illicit organizations during this period, limited their territorial influence and control and, consequently, their ability to establish collaborative arrangements with the state. Collaboration was restricted to low-ranking police officers who participated in the commission of certain kidnappings. For

example, Rodrigo Zablah, a prominent Salvadoran businessman, was kidnapped in 2000 by patrol officers assigned to the emergency response unit in the greater San Salvador area (García, 2000). According to journalistic accounts, these officers were recruited by the criminal group that planned the offence and tasked with stopping Zablah in their patrol car in an exclusive residential neighbourhood in greater San Salvador to transport him to another location to be held captive (García, 2000). Under such conditions, the choices made by offenders that belong to illicit organizations are heavily influenced by detection avoidance. Since partnerships are generally with authorities who have limited influence and power, crimes have to be committed so that the chances of being reported and apprehended by authorities are minimized. Considering the restricted geographic dominance of illicit organizations in this governance regime, the study focuses on the choices associated with the spatial dimension of offending. Specifically, it investigates the spatial structure of ransom kidnappings perpetrated at the peak of the kidnapping crisis and its deacceleration as authorities gained control over the problem.

Ransom kidnapping is the most predatory variety of extortion committed by criminal organizations that generally have not yet consolidated territorial strongholds and, for that matter, are not as interested or equipped to develop long-term relationships with local actors or collaborative arrangements with the state. For example, the beheading strategies employed by the Mexican government caused a fragmentation of MDTOs, creating multiple splintered groups that engaged in ransom kidnapping as they struggled to secure a slice of the illicit drug trade and establish themselves as standalone organizations (Jones, 2013). The execution of ransom kidnappings involves at least three locations: abduction, captivity and release sites (Marongiu & Clarke, 1993). Previous research exclusively focuses on the geographic distribution of abduction sites (for example ONC, 2014; Pires et al., 2014; Stubbert et al., 2015). The study presented here examines anonymized data provided by the Attorney General's Office in El Salvador (FGR) corresponding to judicialized cases of ransom kidnappings perpetrated between 2000-2006, to investigate the spatial distribution and structure of three sites (abduction, captivity, and release sites). Given the lack of understandings between the groups that engaged in ransom kidnappings and the State, the study hypothesized that the location of captivity and release sites would be associated with the movement patterns of perpetrators, who were expected to select sites in areas they were able to

navigate without risking being identified by authorities, while abduction sites would be more closely related to the spatial routines of victims.

1.7.2. Study 2. Offender Choices in Extortion for Protection

The second study of the thesis looks at offender choices in extortion for protection in El Salvador between 2014 and 2015. A different type of governance arrangement was in place during this period. By the 2000s, MS-13 and Barrio 18, the street gangs that arrived through the deportation of Salvadorans from the United States in the 1990s, had grown and evolved into complex organizations that established a strong grip over a large portion of the territory through extortion for protection (Insight Crime & Global Initiative Against Transnational Organized Crime, 2019; International Crisis Group, 2017; Miguel Cruz, 2010; Walker & Vazquez, 2021). In the period examined by the second study, the state and other societal actors had established arrangements with both gangs to take advantage of their territorial influence and control (Aguilar, 2018, 2019; Dudley, 2020). In 2012, during Mauricio Funes's presidency, the State and both gangs struck a deal to reduce homicide statistics in exchange of benefits for imprisoned gang leaders, which later incorporated electoral support for his political party (Aguilar, 2019; Cruz, 2019; Cruz & Durán-Martínez, 2016; Farah, 2012a, 2012b; Farah & Babineau, 2017). Since then, street gangs have become an important asset sought by political parties during electoral events (Aguilar, 2019; Córdova, 2019).

The study examines offender choices throughout the crime commission process of extortion for protection. It analyzes information from dataset collected through a victimization survey conducted by the Salvadoran Foundation for Economic and Social Development (FUSADES) at the beginning of 2015 among micro and small businesses in El Salvador. The aim of the study is to identify variations in offender decisions associated with differing social orders and perpetrators. The study hypothesizes that contexts in which different rules apply affect the way extortionists choose to execute offences. Previous research on criminal governance suggests that under certain governance regimes, cities are split into plural social orders because both illicit organizations and state agencies establish their own rules over the areas they control (Arias & Barnes, 2017). The study presented here borrows a multidimensional scaling methodology used in the criminal profiling literature to identify choice patterns associated with differing levels of control exercised by extortionists.

1.7.3. Study 3. Choices Associated with Interaction Patterns

The period investigated by the third study in this thesis includes a regime change. It coincides with the temporary dissolution of the deal between street gangs and state agents and, consequently, a shift back to a confrontational arrangement. MS-13 and Barrio 18 played an important role in El Salvador's 2014 presidential election. Using their territorial control and influence, they provided support to one of the candidates, Salvador Sánchez Cerén, as part of the agreement initiated by his predecessor, Mauricio Funes, and their political party, the FMLN (Aguilar, 2018, 2019). Several factors contributed to the deterioration of the arrangement between officials and street gangs, which ultimately led to the adoption of extremely repressive measures and tactics by the government between mid 2015 and 2016, like the creation and deployment of special police and military battalions, the tacit encouragement by police commanders of lethal armed confrontations with gang members in the field, and the enactment of a bill that authorized extreme repressive measures (Aguilar, 2019). In 2016, leaders from MS-13 and Barrio 18 confirmed, in a public statement released to the press, that they had decided to end their arrangement with the FMLN because officials had not kept the promises made to them as part of an agreement (Aguilar, 2019). Both street gangs were resisted the attacks launched by the Salvadoran authorities, adapted, and evolved. They survived and made a new deal with the next president, Nayib Bukele, to drive down homicides once again (Aguilar, 2018, 2019). Their ability to transform and renew a collaborative arrangement is associated the resilience of MS-13 and Barrio in El Salvador.

The third study moves away from choices associated with the crime commission process of extortive offences to concentrate on the interaction patterns associated with the network architecture of illicit organizations, which result from decisions aimed at balancing efficiency and security needs. The literature that examines the network configuration of illicit organizations argues that the patterns of interactions between individuals associated with such groups are largely dictated by decisions that seek to balance detection avoidance and efficiency (Bright, Greenhill, Britz, Ritter, & Morselli, 2017; Duxbury & Haynie, 2019; Morselli, Giguère, & Petit, 2007; Morselli & Petit, 2007). Shifts between criminal governance regimes change the conditions that calibrate the desired balance and, therefore, affect the decisions behind the network configuration of illicit organizations. The anticipation of harsher conditions resulting from higher law

enforcement scrutiny forces illicit organizations to focus more on security and change their patterns of interaction accordingly (Ouellet, Bouchard, & Hart, 2017). The third study in this thesis examines the network architecture of MS-13's resilience under a collaborative criminal governance regime and in midst of a shift to confrontational arrangement.

The investigation provides insight into MS-13's capability to anticipate, prepare, react, and adapt to disturbances. This capability is related to security-efficiency choices that impact interaction patterns resulting from the alteration of the conditions under which gangs operate. The study adopts a mixed-methods approach to identify the network structure of interaction patterns associated with resilience mechanisms at various levels of MS-13's organization. Transcripts from focus groups conducted with Salvadoran prosecutors in 2019 were analyzed to detect common themes in the gang's resilience capabilities. Additionally, wiretap data from two criminal investigations, operation "Bosques" and operation "Jaque," were used to recreate the network architecture of MS-13. The criminal probes used in this study were conducted between 2015 and 2016. Each focuses on a different level of the gang's organization. Several network metrics and techniques were applied to examine the interaction patterns associated with resilience mechanisms of MS-13 under normal working conditions. Additionally, operation "Jaque" coincides with a significant disruption that allowed the study to assess the network configuration of interaction pattern in MS-13 top governance structure as the gang reacted and adapted. The analysis estimates a separable temporal exponential random graph model (STERGM) to measure the significance of structural changes in the operation "Jaque" network as MS-13 dealt with the disruption. Examining these variations allowed to identify the influence of criminal governance regime changes over efficiency-security choices associated with interaction patterns.

Collectively, the three studies in this thesis provide a nuanced view of offender decisions in extortive offences under various types of conditions prevalent in countries of Latin America, such as El Salvador. Specifically, the studies investigate choices associated with the execution of offence-related tasks and the structural configuration of illicit organizations heavily involved in extortive offences. The criminal governance framework proposed by political scientists was used to incorporate the distinct circumstances behind the extreme forms of crime found in such contexts and, consequently, explore offender choices in extortive crimes within the constraints and

incentives imposed under differing conditions. By focusing on different points in El Salvador's history, each investigation provides insight about offender decisions under a specific type of criminal governance regime that varies from those explored by the other two investigations. The first two studies examine offender decisions associated with offence-related tasks, each under a different criminal governance arrangement. In fact, they analyze extortionist's choices under conditions that are fundamentally different. The first investigation looks at a period in which the collaboration between the state and illicit organizations was inexistent or limited. The second, conversely, examines a timepoint that involves a strong collaboration between criminal groups, state agents, and politicians. Together, the results of the studies provide insights about the execution of extortive crimes, relevant for the development of crime prevention policies.

Instead of looking at choices associated with specific tasks in the crime commission process of extortion, the third investigation examines interaction patterns in MS-13, a super gang heavily involved in extortion, which result from choices aimed at balancing security and efficiency. Specifically, it investigates the interaction patterns produced by offender decisions associated with resilience in the context of a collaborative criminal governance arrangement and its termination. The findings from this study are particularly significant because many states in Latin America now consider striking secret deals with illicit organizations as a valid policy to reduce violence, sometimes in hope of creating some breathing space to dismount violence permanently.

Gaining a better understanding of the incentives and constraints faced under different types of criminal governance regimes is crucial to develop policies that adapt to the conditions these circumstances generate (Jaitman, 2019). Such adaptations have been previously suggested specifically for the tropicalization of policies aimed at influencing offending choices, like focused deterrence programs (USAID, 2018). The findings produced by the three studies in this thesis provide insight about how criminal governance arrangements impact offender decision-making and the factors that moderate this effect. Results were used to propose a preliminary conceptual model of offender choices in extortion under criminal governance.

Chapter 2.

Spatial Choices in Ransom Kidnapping

This section is adapted from Ponce & Andresen (2020), previously published by the Security Journal.

2.1. Introduction

Ransom kidnapping crises are more commonly found in countries of the Global South with poor governance and weak criminal justice systems. In this type of context, kidnappings progressively become an attractive criminal enterprise for organized crime, guerrilla groups, and, in some cases, even otherwise law-abiding citizens. In Mexico, for example, as drug trafficking organizations turned their attention to ransom kidnapping, the number of incidents reported to the police increased by 522% between 2005 and 2014 (ONC, 2014). During the 1990s, when Colombian narco-terrorist groups started to progressively use kidnapping for ransom to finance their operations, the number of victims increased by 8100% between 1980 and 2000 (Moor & Remijnse, 2008; Pires et al., 2014). In the Niger Delta region, ransom kidnappings became an attractive alternative to make money even for ordinary people, with its popularity leading to such an increase that by 2012 offences perpetrated in the Niger Delta constituted 25% of cases reported worldwide (Aghedo, 2015).

Ransom kidnappings are not as common or prevalent in industrialized nations of the Global North. The offence has almost disappeared in North America and Europe. Together, these two regions account for only 1-3% of global activities (Detotto, McCannon, & Vannini, 2014). Consequently, there is a relative scarcity of research on the subject. Recent investigations, however, reiterate the relevance of examining the spatial dimension of ransom kidnappings, highlighting its potential insights for the development of situational crime prevention measures (Pires et al., 2014; Stubbert et al., 2015). Law enforcement strategies aimed at increasing the risks of perpetrating the offence are often based on its spatial nature. The police in El Salvador, for instance, developed and implemented an early abduction alert and quick response protocol to block roads around abduction locations and convinced law-makers to pass a new bill to

regulate tinted car windows (Ponce et al., 2005). Both measures sought to make it harder and more dangerous for kidnappers to transport victims, particularly from abduction to release sites. Despite such responses acknowledge the spatial complexity of ransom kidnapping by considering the multiple sites its execution involves, existing studies tend to focus on the abduction sites. The current study contributes to the literature on ransom kidnapping by expanding the analysis to include captivity and release sites. Specifically, this investigation examines the spatial distribution and structure of abduction, captivity, and release sites in kidnappings perpetrated in El Salvador, Central America between 2000 to 2006. The theoretical explanations connected by environmental criminology guide the analytical approach used here.

Studying ransom kidnappings during this period of the country's recent history sheds light over offender choices in multi-site offences in a particular type of governance arrangement. El Salvador exhibits two distinct periods in which ransom kidnappings rose. First, when guerrilla groups became interested in the acquisitive potential of the offence and, later, when crime groups perceived it as a lucrative illicit enterprise. This study concentrates on the latter, when ransom kidnappings increased in El Salvador during the post-war setting, while the criminal justice system was struggling to adapt to changes brought on by modernization and democratization processes, and the emergence of various illicit organizations created a convoluted and competitive crime scene. Collaboration between state agents and illicit organizations was not institutionalized or sanctioned by authorities. Under such conditions, the choices made by offenders are constrained by their confined territorial reach. The current study provides insight about how these constraints shape the distribution of sites in the execution of ransom kidnappings.

2.2. The Nature of Ransom Kidnappings

Ransom kidnappings are complex offenses that involve multiple stages and require relatively sophisticated offenders, capable of calculated preparation, and open to collaborate with others to assemble the logistical resources and operational skills that each offence demands. The planning and execution of ransom kidnappings are framed around a structured process, shaped by offenders' efforts to minimize the risks of apprehension and increase their chances of success (Marongiu & Clarke, 1993). The literature discussed below, suggests that the selection of locations, where different parts

of the offence take place, is not random, but guided by the assessment of the risks that each entail.

Marongiu and Clarke (1993, p. 188) note that the crime commission process in ransom kidnappings can be divided into 5 distinct stages: (1) planning; (2) abducting and transferring the victim; (3) custody; (4) contacts and negotiation; (5) outcome. Offenders, they explicate, abduct victims and, subsequently, transport them to another location to hold them captive, while their families are contacted to start negotiating a ransom amount (Marongiu & Clarke, 1993). After both parties involved in the exchange reach an agreement and the respective ransom payment is delivered, or if kidnappers decide to abort their plans, victims are taken to another location to be set free (Marongiu & Clarke, 1993). The nature of these stages suggests that the execution of ransom kidnappings involves at least three locations: abduction, captivity, and release sites, with captivity sites potentially having multiple locations (Marongiu & Clarke, 1993). As such, each stage and corresponding location involves different risks that offenders must anticipate and plan for to increase their chances of success (Marongiu & Clarke, 1993).

Before victims are abducted, kidnappers plan the details of the execution of crimes they will perpetrate; this is done to minimize the risks of being caught, collect and analyze information on victims to anticipate potential threats, and devise offence execution plans accordingly (Marongiu & Clarke, 1993). Wright (2009) notes that before victims are abducted, kidnappers decide how to approach each crime. In this stage, he adds, offenders select potential victims and identify the methods, locations, people, and resources that will be used and, additionally, assess the anticipated police response to determine if the risks of being identified or apprehended are too high not to proceed. Moreover, kidnappers select prospective victims, follow them around to understand their movement patterns and, subsequently, choose abduction sites that involve lower risks (Marongiu & Clarke, 1993). Marongiu and Clarke (1993) observe that offenders must plan abductions to avoid being spotted by witnesses or intercepted by law enforcement. In addition, they point out that if abduction locations are not assessed in advance, the routes chosen to get victims to captivity sites may not be optimal and, therefore, may involve a higher risk of being detected in transit by other drivers or the police (Marongiu & Clarke, 1993). Wright (2009) argues that, during the planning stage, kidnappers choose how and where they will transport victims after being abducted to be held captive.

The time it takes for ransom negotiations between offenders and victims' families to culminate vary. Exchanges may last for days, weeks, or even months before an amount is agreed upon, the respective payment delivered, and the victim released (Detotto et al., 2014). Best (1982) maintains that this aspect of ransom kidnappings separates them from more common exploitative offences that involve coercion (rape, for example), surreptitious exploitation (burglary, for example), and fraud. He explains that ransom kidnappings inherently create a peculiar dynamic between offenders and their counterparts. Best (1982) notes that kidnappers face the distinct challenge of persuading victims' families to voluntarily choose to engage in a sequence of bargaining exchanges, shaped by mutual posturing and deceit-detection tactics, aimed at reaching opposing goals. Offenders, he argues, want ransoms to be paid without being detected or apprehended by authorities, while their counterparts want victims safely released and kidnappers caught.

Previous research has depicted kidnappers as astute and deceitful offenders (Best, 1982). In contrast to other criminals, they must carefully frame interactions during negotiations so that they are perceived as dangerous, but also seem reasonable enough to reach and honour agreements (Best, 1982). Moreover, Best (1982) warns that victims' families are constantly trying to identify this balance in kidnappers and, if negotiators fail to convey it, their counterparts are more likely to secretly contact law enforcement to seek help. For this reason, he argues, negotiators must permanently elicit and interpret cues during bargaining exchanges that allow them to detect the involvement of the police or any other sign of deceit that may elevate the risks of being caught (Best, 1982). Best (1982) maintains that kidnappers are always at a disadvantage because they cannot identify or foresee all possible deceptive strategies employed by victims' families. However, offenders may avoid the risks of falling for ploys devised in collaboration with the police by selecting captivity sites that are difficult for authorities to locate, difficult for victims to escape from, and difficult to attract the attention of bystanders. Generally speaking, kidnappers choose captivity locations over which they have some level of control, places where offenders are familiar, and where their presence doesn't raise suspicion (Marongiu & Clarke, 1993). During captivity, hostages are often subjugated by their custodians through psychological or physical violence, or through different types of reward-punishment tactics (Phillips, 2011, 2013). Offenders must choose captivity sites

where they can apply these techniques without attracting the attention of neighbours or law enforcement.

In the context of ransom, whether it is ultimately delivered or not, kidnappers must release their victims or, if they decide to kill them, they must dispose of the bodies (Wright, 2009). Wright (2009) maintains that this is the most dangerous juncture for victims. He observes that after kidnappers receive the ransom payment or decide to abort their plans, victims go from being assets to becoming liabilities that need to be quickly discarded (Wright, 2009). His description of how victims are released conveys it as a tactically complicated task, that involves the deployment and participation of various offenders able to control and navigate in and out of the selected sites (Wright, 2009). Kidnappers, Wright (2009) explains, must be able to transport victims to the chosen locations making sure that they are disoriented so that they cannot trace their way back to where they were held captive, while, at the same time, reducing the chances of being detected by authorities or bystanders. For this reason, release sites are at a safe distance from the captivity location (Wright, 2009).

The sites selected by kidnappers play an important role in shaping the execution of their offences. However, spatial research on ransom kidnapping has not examined all location types that its crime commission process involves. Most studies that have taken this investigative approach focus exclusively on abduction sites and, moreover, use aggregate level data. The current understanding of the spatial patterns of ransom kidnappings, thus, presents a partial picture of the geography of the offence. Relevant theoretical constructs suggest that incorporating captivity and release sites would provide a more comprehensive understanding of the spatial structure of kidnappings, particularly in contexts in which offenders are constrained by their geographical reach and control.

2.3. Theoretical Considerations for Understanding the Spatial Structure of Kidnappings

The geography of crime is examined by a specific branch within criminology, environmental criminology, which is guided by the central premises of rational choice theory, routine activity theory, and the geometry of crime (Andresen, 2010, 2014). This school of thought examines the spatial and temporal dimension of crime through various

theoretical frameworks that explain how offenders decide to take advantage of criminal opportunities and how and where these opportunities are produced. Based on the rational choice perspective, criminals are assumed to select targets and perpetrate offences following an underlying logic through which all courses of action are assessed, ultimately choosing those perceived to minimize risks and maximize rewards (Cornish & Clarke, 1986). Under this framework, crime opportunities are not expected to be exploited unless offenders believe that doing so is the most beneficial alternative. Routine activity theory posits that crime opportunities are produced when motivated offenders, suitable targets, and deficient guardianship converge, and argues that these elements coincide as a direct consequence of the routine activities of both criminals and victims (Felson & Cohen, 1979). The geometry of crime incorporates a spatial dimension to this reasoning. It postulates that the built environment dictates where and how people move during their daily routines and, therefore, shapes the spatial patterns of the crime opportunities created by the convergence of offenders and victims during their movement in the urban landscape (Brantingham & Brantingham, 1993, 2010). The theory explains that people's activity space can be traced through the places they visit and the routes they take to move from one location to another. It also postulates that offenders become familiarized with their routine activity space, creating an awareness area where they are comfortable enough to perpetrate crimes. Offenders are assumed to pick victims and targets in places they are sufficiently acquainted with. Consequently, the theory essentially proposes that crime opportunities concentrate spatially where offenders' awareness areas overlap with victims' activity spaces (Brantingham, Brantingham, & Andresen, 2017).

2.4. Spatial Aspects of Ransom Kidnappings

Empirical research has conceptualized and analyzed this spatial movement and convergence of victims and offenders as mobility triangles, examining the spatial proximity of locations where crimes are perpetrated at and where parties involved reside (Felson, Andresen, & Frank, 2011). The mobility triangle typology proposed by Normandeau (1968) has served as the foundation for more recent research on the subject. His taxonomy describes various scenarios for the spatial distribution of the three sites. Specifically, it proposes that some offences are perpetrated in the neighborhood where both the offender's and victim's dwellings are located, but that there are other

crimes in which the offender travels to the neighborhood of the victim's home or vice versa. Additionally, there are other offences that take place in locations away from where both parties live. This typology has been used by researchers to analyze the proximity of offenders' and victims' residences with crime sites for various types of offences (Amir, 1971; Groff & McEwen, 2007; Rand, 1986; Tita & Griffiths, 2005). Their findings suggest that mobility triangles vary depending on the specific crime that is being considered. Felson et al. (2011) proposed the use of mobility polygons instead of triangles to incorporate the spatial effects of co-offenders. Their expansion concentrated on measuring the area covered by mobility polygons. The results of Felson et al.'s (2011) investigation remained consistent with previous explorations, showing that the area covered by the mobility polygons was more related to the crime type than the number of offenders involved in the criminal event.

The particularities of ransom kidnappings suggest that at least two mobility scenarios may dominate its execution. As mentioned before, kidnappers select abduction locations within victims' movement patterns. Choices for abduction sites are, therefore, limited by each victim's daily routines. Sometimes these locations may be away from where offenders reside. In certain kidnappings, informants play a key role in identifying potential victims by gathering information and relaying it to offenders (Marongiu & Clarke, 1993; Wright, 2009). Marongiu and Clarke, (1993), for example, explain that most kidnappers in Sardinia, Italy, resided in the central Nuoro district, but frequently traveled to the seaside resorts in the northern district of Sassari to find potential victims to abduct on tips provided by people who worked domestic or other menial jobs at vacation villas. Aghedo (2015) described that Niger-Delta kidnappers generally ambush victims at their homes, offices, or restaurants to take them captive.

On other occasions, however, offenders may live closer to where they abduct victims. Marongiu and Clarke (1993) found that a significant part of kidnappings perpetrated in Sardinia involved abduction sites located in the Nuoro district, where most kidnappers lived. Similarly, Moor (2008) observes that, during the 1990s, when Colombian terrorist organizations turned to ransom kidnapping to fund their operations, they devised an abduction tactic called "pescas milagrosas," Spanish for miraculous catches. Moor explains that guerrilla groups would set up road blocks in busy roads and highways that passed through territory under their control, and would stop cars, check people's identities, and abduct those who were perceived to be able to produce a hefty

ransom payment. Yang, Wu, and Huang (2007), conversely, describe that some kidnapers in their sample lured targets into traps to take them hostage, suggesting a higher level of control of offenders over those locations.

These mobility scenarios suggest two important aspects regarding the spatial distribution of abduction, captivity, and release sites. The first one is that the locations where victims are seized tend to be spatially concentrated. The activity of potential targets is not random, it follows a routine and, therefore, a spatial pattern, so the choices for abduction sites available to offenders will be clustered in specific areas. As mentioned before, existing spatial research on ransom kidnappings focuses on abduction sites and the findings produced by these investigations are consistent with what the scenarios suggest. A study by the Observatorio Nacional Ciudadano Seguridad, Justicia y Legalidad (ONC), a non-governmental organization based in Mexico that monitors and analyzes crime trends in that country, revealed that ransom kidnappings perpetrated in 2011 were clustered in only 12% of municipalities (ONC, 2014). Similarly, Pires et al.'s (2014) research shows that 78% of abductions in ransom kidnappings in Colombia, between 2002 and 2011, were executed in only 20% of municipalities. Moreover, their results indicate that 11% of all victims were seized in the country's three largest cities: Bogota, Medellín, and Cali. Stubbert et al.'s (2015) more detailed analysis of the same data, show that the spatial concentration of incidents became more localized with time. They explain that in 2002, 88% of abductions were executed in 20% of municipalities, while in 2011 all victims were seized in just 12% of municipalities. Marongiu and Clarke (1993), in their study of ransom kidnappings perpetrated between 1966 and 1990 in Sardinia, Italy, suggest that the spatial concentrations of the abductions they examined, were related to the lifestyle and routine activities of the victims targeted by offenders. For example, they determined that a significant part of the abductions of wealthier victims were spatially concentrated near luxurious beach resorts and less wealthy victims were more frequently seized in the countryside.

The second aspect suggested by the mobility scenarios discussed above, is that the spatial distribution of captivity and release sites may differ from that of abduction locations. Victims, as discussed above, are sometimes seized at places that are located far from where kidnapers reside, suggesting that they may be held captive and released in areas where offenders feel more in control (Marongiu & Clarke, 1993;

Wright, 2009). Marongiu and Clarke (1993) explain that wealthy victims seized in the northern district of Sassari were kidnapped at night to reduce the risk of transferring them to more centric rural areas of the island of Sardinia where, coincidentally, most offenders lived. Similarly, the authors point out that victims were more likely to be released in this part of the island, regardless of where they were abducted. Wright (2009) notes a more extreme case: some kidnapped victims are held captive and released in a different country from where they were abducted. In this type of ransom kidnappings, captivity, and release sites will tend to be close together, but away from abduction locations. However, Marongiu and Clarke (1993) also convey a different kind of kidnapping in which victims are seized near where offenders reside. They describe that a large portion of kidnapping victims are abducted in the Nuoro district, where most offenders lived and most victims were released. In these cases, abduction, captivity, and release sites will be spatially concentrated in the same areas. This is particularly relevant in the context of Latin America due to its distinct urban landscape. Although there are cities can be easily divided into wealthy and poor areas, many Latin American countries also have marginalized communities peppered across urban centres (Jaitman, 2015). These pockets of concentrated disadvantage serve as breeding grounds for street gangs and illicit organizations (Arias & Barnes, 2017; Savenije, 2009).

The spatial structure of sites in ransom kidnappings has not been empirically investigated. Understanding how the different sites are distributed individually and in relation to each other would provide insight about the process through which offenders choose where to perpetrate tasks related to the crime commission process that ransom kidnappings entail and how they navigate the constraints imposed by their spatial reach and influence. Furthermore, analyzing the spatial structure of kidnappings may provide relevant input to assess the fit of law enforcement strategies that consider the existence of multiple sites in the commission of the offence and for the future development situational crime prevention measures to help countries deal with ransom kidnapping epidemics in contexts like El Salvador.

2.5. Aim of Study 1

The current study investigates the spatial structure of abduction, captivity, and release sites in ransom kidnappings. Specifically, it analyzes their geographical distribution at different levels of aggregation to identify similarities and differences in their

spatial clustering. The research hypotheses are that captivity and release sites share similar spatial patterns, but differ from that of abduction sites. It is hypothesized that because kidnappers are most vulnerable in captivity and release sites, they seek to have more control over these places to avoid detection from authorities. Abduction sites, however, are not in the control of the kidnappers, so they are not necessarily in space best known by them. As such, this study investigates if captivity and release locations are selected in a similar manner, leading to similar spatial patterns.

2.6. Data

El Salvador endured a kidnapping for ransom crisis that began in the late 1990s and peaked in 2000 (Ponce et al., 2005) (see Figure 2.1). Data was provided in official records kept by the Attorney General's Office of El Salvador. Geographical information for incidents committed before 2000 was not available. Therefore, the study examines offences perpetrated between 2000 and 2005. A total of 573 cases were identified, but only 466 contained addresses and geographical coordinates for the places of abduction, 86 for captivity sites, and 168 for release locations. This investigation focused on the 79 cases that contained data on all three site types.

2.7. Analytic Approach

Researchers have repeatedly noted the discrepancies in the results of spatial analysis generated by using different areal units (Andresen & Malleson, 2013; Fotheringham & Wong, 1991; Openshaw, 1984). Consequently, this study takes a three-pronged analytic approach to examine the geographical distribution and concentration of abduction, captivity, and release locations in ransom kidnappings at different levels of spatial resolution.

First, differences in the departmental and municipal concentrations are investigated. El Salvador is divided into 14 administrative areas referred to as departments and these are further delimited into 262 municipalities (see Appendix A and Appendix B). Each site type is plotted using the coordinates contained in the dataset and then, aggregated to departments and municipalities. Since the most aggregate level of analysis involved only fourteen departments, the concentration was analyzed simply by comparing the proportion of sites reported at each geographical delimitation. The

municipal concentration, conversely, was analyzed using local spatial analysis, local Moran's I . Local Moran's I has been used in a number of criminological contexts to represent local clusters of crime—see Andresen (2011). Local Moran's I is the local version of the global spatial statistic, Moran's I (Anselin, 2010). It identifies spatial clustering at the local level (for each spatial unit of analysis), indicating if each spatial unit of analysis is surrounded by similar or dissimilar values.

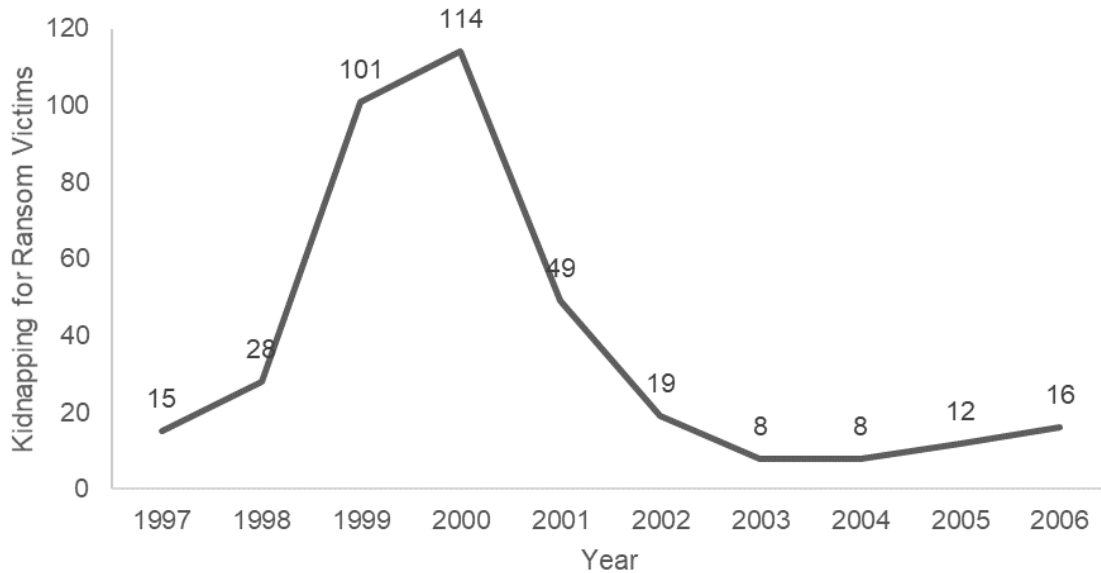


Figure 2.1. Annual Ransom Kidnappings in El Salvador, 1997-2006

The local Moran's I statistic is calculated in the following manner:

$$I_i = \frac{(x_i - x^*) \sum_j w_{ij} (x_j - x^*)}{\sum_i (x_i - x^*)^2 / n}$$

where x_i is the value of variable x in spatial unit i , x^* is the mean of x , n is the number of spatial units, and w_{ij} is the spatial weights matrix that measures the strength of the relationship between two spatial units. The present analysis uses first order Queen's contiguity to estimate spatial weights, such that all spatial units are considered neighbors/contiguous, even if they touch at only a corner. The local Moran's I statistic ranges from -1 (perfect negative spatial autocorrelation) to +1 (perfect positive spatial autocorrelation). These values are then used for the following classifications of local

clusters: high-high, low-low, low-high, and high-low. High-high and low-low represent local positive spatial autocorrelation, high crime-rate areas surrounded by other high crime-rate areas (hot spots of crime) and low crime-rate areas surrounded by other low crime-rate areas (cool spots of crime), respectively. Low-high and high-low represent local negative spatial autocorrelation, low crime-rate areas surrounded by high crime-rate areas and high crime-rate areas surrounded by low crime-rate areas, respectively. A final and fifth classification also represents no statistically significant spatial clustering.

The second part of the analysis examines the degree of similarity of municipal and departmental distributions of location types. Andresen's Spatial Point Pattern Test (SPPT) (Andresen, 2009, 2016; Wheeler, Steenbeek, & Andresen, 2018) is used to measure how similar distributions at both levels of resolution, departments and municipalities. SPPT operates by classifying one (point) data set as the base data (that which other data are compared to) and another data set as the test data. For each spatial unit of analysis (departments or municipalities in the current case) the percentage of points are calculated for the base dataset. In the test dataset, a random sample (85%) is taken and then the percentage of points within each spatial unit is calculated. This is repeated 200 times in a Monte Carlo simulation to generate a nonparametric 95% confidence interval. If the base dataset percentage is within the nonparametric confidence interval for the test dataset, the pattern for that spatial unit of analysis is considered similar; if not, the percentage in the base or test dataset is deemed to be greater. From this output, the local results (similar, base<test, base>test) can be mapped for each spatial unit such that the patterns of (dis)similarity can be analyzed, visually or otherwise. And a global statistic, S , is calculated as the percentage of spatial units that are deemed similar, ranging from 0 to 1, with a value of 0.80 considered to high enough to represent spatial similarity (Andresen, 2009, 2016). In the proposed study, abduction locations will be used as the base dataset when they are compared to captivity and release sites. When the latter two are contrasted, captivity locations will be used as the base dataset.

The third component of this study's analysis approach examines the distribution of sites in relation to each other for each case. The distances between related abduction, captivity, and release locations were calculated in kilometers. A considerable number of sites in the dataset are in isolated rural areas and the available street network file did not reach those places. Consequently, the analysis uses Euclidian distances. Additionally,

the angles produced by the lines that join abduction sites with captivity and release locations were calculated for every ransom kidnapping. Central tendency and dispersion measures were analyzed using Wilcoxon Signed Rank and Kruskal-Wallis H tests to identify statistically significant differences. Bi-variate Spearman's rank order correlations were estimated between distances and angles to examine the geometry of the spatial distribution of site types.

Additionally, the amount for ransom demands and payments were also included in this part of the analysis to assess the influence of offence complexity over site distribution. Mobility is an important indicator of more skilled offenders. Wider offending perimeters are linked to higher rewards (Morselli & Royer, 2008). Paoli (2002) notes that most crime groups limit their operations locally to avoid the risks of venturing into territory they do not control. She argues that crime groups that have a more ample operational radius have an advantage over other collectives because they are embedded in a broader network that allows them to have a greater geographical reach and, therefore, to access more lucrative enterprises. Thus, the analysis investigates if longer distances are associated with larger ransom payments and more effective negotiators (measured as the proportion that ransom payments compared to ransom demands).

2.8. Results

2.8.1. Site Concentration and Distribution in Departments and Municipalities

The spatial concentration of abduction, captivity, and release sites were similar, but presented subtle variations. At the departmental level, San Salvador, where the country's capital city and its largest metropolitan area are embedded, show the highest concentration for all site types (see Table 2.1). Similarly, Usulután and Santa Ana hold the second and third highest spatial concentration, respectively, for abduction, captivity, and release locations. However, La Libertad holds an equal concentration of captivity and release sites as Santa Ana, but the focalization of abductions there are much lower. A noteworthy observation is that the concentrations of captivity and release sites remained similar within these variations.

A comparable pattern is observed at the municipal level. The results produced using local Moran's *I*, revealed that abduction, captivity, and release sites presented similar spatial clusters, with slight variations. Figure 2.2 shows that all location types had prominent spatial concentrations in El Salvador's central region, that includes municipalities in and adjacent to San Salvador, the department with the highest concentration of abduction, captivity, and release locations. For some municipalities, the concentration of captivity and release sites was similar, but the concentration of abductions was not. Soyapango and Mejicanos, both located proximate to San Salvador, El Salvador's capital city, were classified as Low-High outliers for abduction locations, but labelled as High-High municipalities for both captivity and release sites. Similarly, Suchitoto, Tonacatepeque, and Soyapango, which were not found to be statistically significant in the abduction site analysis, had high concentrations for the captivity and release of kidnapping victims. Other municipalities, however, showed differing agglomerations for captivity and release sites. Nejapa, classified as a Low-High outlier for release locations, and Ilopango, San José Juayabal, Panchimalco, and Antiguo Cuscatlán, classified as high concentration municipalities, are not found to hold statistical significance for captivity sites. Likewise, Santa Tecla and Santo Tomás, were found to be high cluster municipalities for captivity locations, but not for release sites.

Table 2.1 Distribution of Sites Across Departments

Department	Abduction (%)	Captivity (%)	Release (%)
Ahuachapán	2.5	0.0	0.0
Cabañas	1.3	1.3	1.3
Chalatenango	5.1	2.5	2.5
Cuscatlán	6.3	5.1	7.6
La Libertad	3.8	8.9	8.9
La Paz	3.8	2.5	2.5
La Unión	2.5	3.8	2.5
Morazán	2.5	1.3	1.3
San Miguel	6.3	6.3	7.6
San Salvador	38.0	39.2	36.7
San Vicente	1.3	0.0	0.0
Santa Ana	7.6	8.9	8.9
Sonsonate	5.1	5.1	5.1
Usulután	13.9	15.2	15.2



Figure 2.2 Cluster and Outlier Analysis for Sites in Ransom Kidnappings

The eastern region of El Salvador held high concentrations for all location types in the department of Usulután, which showed a similar dynamic. Jiquilisco was identified as a high concentration municipality across abduction, captivity, and release sites. However, Puerto El Triunfo and Usulután were only found to be high concentration locations for captivity and release sites. Additionally, Ozatlán was classified as a High-High municipality only for captivity locations. A third cluster of high concentration municipalities is identified in El Salvador's western region, where a slightly different pattern emerges. Abduction locations reported high concentrations only in one municipality: Santa Ana. Release sites also show high concentration in this location, but in neighbouring Coatepeque and San Pablo Tacachico as well. Captivity sites, conversely, are only found to have high concentration in San Pablo Tacachico.

The results obtained by Andresen's point pattern test provide results consistent with these findings. The departmental and municipal distributions of abduction, captivity, and release sites are similar, but the similarities are stronger between captivity and release locations. As detailed in Figure 2.3 the test reveals that the proportion of captivity and release sites are both higher than the proportion of abduction locations in four departments (Ahuachapán, Chalatenango, San Vicente, and Morazán) and lower in one (La Libertad). Conversely, the proportion of captivity sites is significantly different than that of release sites in only two departments (Cuscatlán and La Unión). The similarity index for departmental distribution is higher when contrasting captivity and release sites (0.857) than when the distribution of abduction sites is compared to the distribution of captivity (0.643) and release locations (0.643).

At the municipal level, the test produced similar, but more moderate results (see Figure 2.4). The procedure indicates that the proportions of captivity and release sites are significantly lower at twenty municipalities (Ahuachapán, Acajutla, El Congo, Nueva Concepción, Colón, San Salvador, San Marcos, Nejapa, Aguilares, San Pedro Masahuat, Santiago Nonualco, Tecoluca, Jiquilisco, Santa María, El Tránsito, Carolina, El Divisadero, Corinto, and Santa Rosa de Lima) and higher at other seven (Juayua, San Juan Opico, Ayutuxtepeque, Guazapa, Soyapango, Cojutepeque, and Puerto El Triunfo). The proportions of captivity and release locations are significantly different at a relatively smaller number of municipalities. The test indicates that twenty-one municipalities exhibited differences of statistical significance (Chalchuapa, Santa Ana, San Pablo Tacachico, Santa Tecla, San Salvador, Nejapa, El Paisnal, Guazapa,

Mejicanos, Ciudad Delgado, Ilopango, Soyapango, San Martín, Santo Tomás, Suchitoto, San Pedro Perulapán, Ilobasco, San Dionisio, San Rafael de Oriente, El Carmen, and

(a) Abduction sites compared to captivity sites (similarity Index = 0.643)



(b) Abduction sites compared to release sites (similarity Index = 0.571)

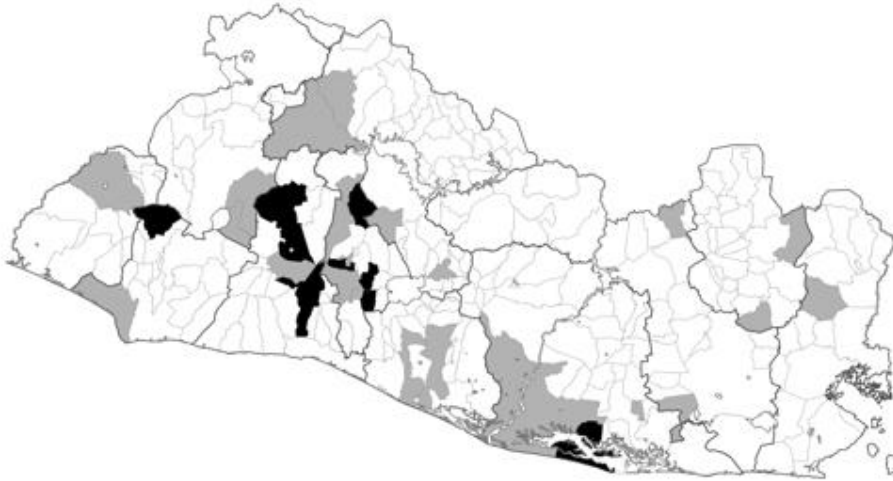


(c) Captivity sites compared to release sites (similarity Index = 0.857)

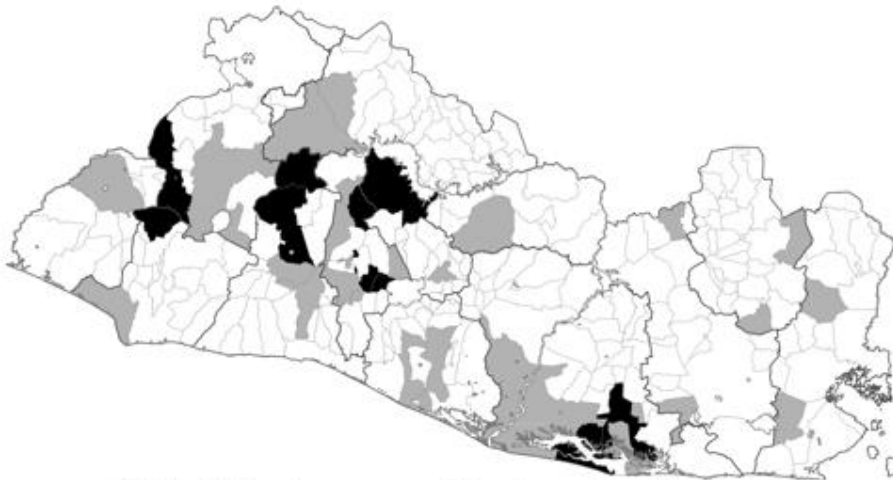


Figure 2.3 Andresen's Spatial Point Pattern Test Applied to the Departmental Distribution of Sites

(a) Abduction sites compared to captivity sites (similarity Index = 0.878)



(b) Abduction sites compared to release sites (similarity Index = 0.874)



(c) Captivity sites compared to release sites (similarity Index = 0.916)

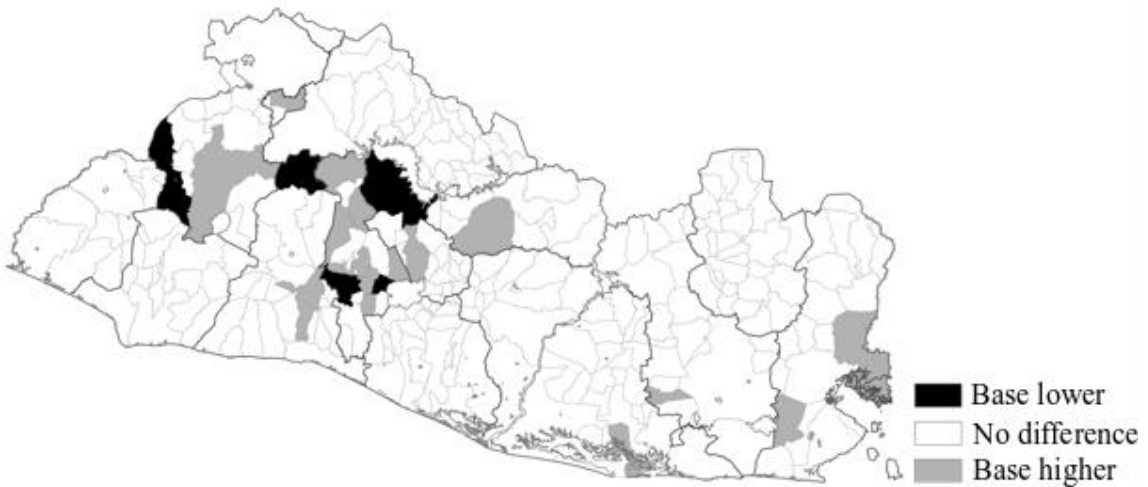


Figure 2.4 Andresen's Spatial Point Pattern Test Applied to the Municipal Distribution of Sites

Pasaquina). The similarity index is moderately higher when contrasting the municipal distributions of captivity and release sites (0.916), than when the distribution of abduction locations is compared to that of captivity (0.878) and release sites (0.874).

2.8.2. Distances Between Related Sites

The central tendency and dispersion measures for the distances between abduction, captivity, and release locations indicate that there is an unequal spatial distribution among related kidnapping sites. Specifically, results detailed in Table 2.2 show that the mean and median distances between abduction and both captivity ($M = 12.8$, $Mdn = 6.5$) and release ($M = 12.8$, $Mdn = 6.6$) sites, are longer than the mean ($M = 4.6$) and median ($Mdn = 2.5$) distances between captivity and release sites. Wilcoxon Signed-Ranks tests indicate that these differences hold statistical significance. The results establish that the distance between captivity and release locations tend to be shorter than the distance between the place of abduction and the locations where the victim is held hostage ($Z = -4.193$, $p = .000$) and released ($Z = -3.37$, $p = .001$).

Table 2.2 Distances Between Sites

Measures	Abduction to Captivity	Captivity to Release	Release to Abduction
Mean	12.8	4.6	12.8
Median	6.5	2.5	6.6
Minimum	0.1	0.0	0.0
Maximum	62.4	31.6	63.1
Standard deviation	15.3	5.6	15.0

The unequal spatial agglomeration of site types remained across different settings, with captivity and release locations being the closest points. The median distance between these two locations is the shortest, regardless of the type of context (urban or rural) in which site types occurred—see Figure 2.5. However, captivity and release locations are farther apart for kidnappings completely executed in rural areas and those that involved mixed settings. A Kruskal-Wallis H test shows that these differences are statistically significant, $\chi^2(2) = 10.415$, $p = .005$. Differences derived from site type setting combinations are also observed for the median distance between release and abduction locations and the total median distance, with locations being closer for kidnappings solely perpetrated in urban areas and longer for cases that involved multiple settings. Interestingly, the difference between median distances among

abduction locations and both captivity and release sites are shorter in kidnappings in which all sites are in either rural or urban places, suggesting that, in these cases, locations are more spatially concentrated.

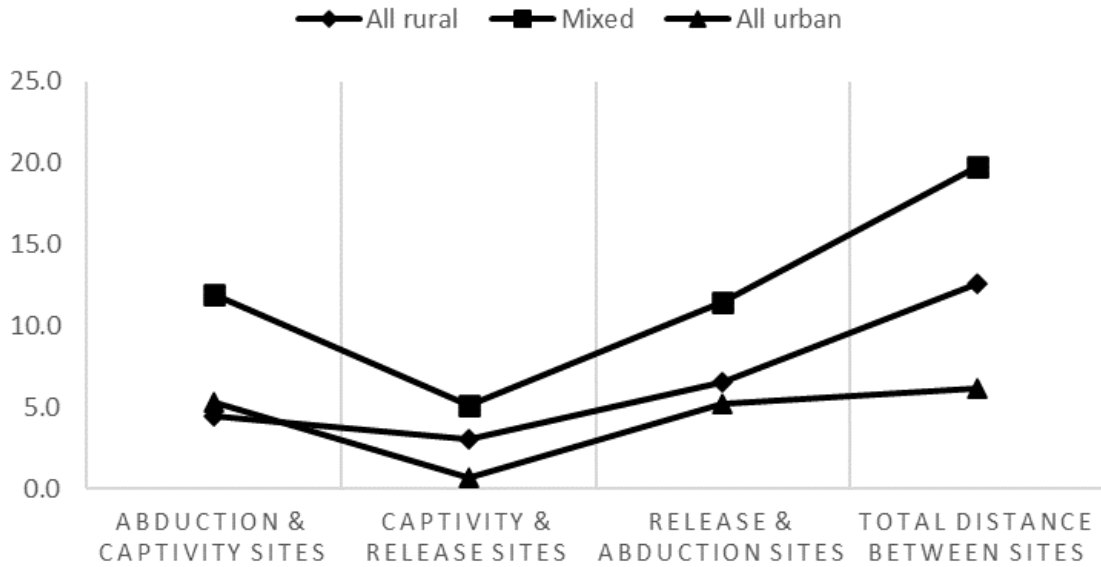


Figure 2.5 Median Distances Between Sites in Urban and Rural Settings

Bi-variate Spearman’s rank order correlations indicated that there is no statistically significant association between the distance from captivity locations to the release sites and the distances between those locations and the place of abduction (see Table 2.3). There is, however, a statistically significant and positive relationship between the distances from the abduction location to where victims are held hostage and, also, to where they are set free ($r_s = .774, p < 0.01$), suggesting that kidnappings that involve greater distances between abduction and captivity sites also tend to involve longer distances between abduction and release sites. Consistent with this finding, longer total distances are statistically significantly associated with longer distances between all sites, but this association is strongest for the distances between the abduction and both the captivity ($r_s = .881, p < 0.01$) and release locations ($r_s = .812, p < 0.01$). Increases in distances covered by kidnappings, therefore, are mainly driven by longer distances between abduction and the other locations.

The examination of the angles created at the intersection of the straight lines joining the abduction location with the place of captivity and where the victim was set free, reveal an interesting spatial dynamic among sites. Wider angles showed a

statistically significant association with shorter distances between the place of abduction and both the release ($r_s = -.576, p < 0.01$) and captivity locations ($r_s = -.439, p < 0.01$), and with overall shorter total distances ($r_s = -.235, p < 0.05$). Conversely, narrower angles were associated with longer distances between captivity and release sites ($r_s = .705, p < 0.01$). This suggests that when release and captivity locations are further away from the place of abduction, they tend to be in the same general direction from it, and when they are closer to the abduction location they tend to be in opposite directions and, additionally, this involves greater distances between the places of release and captivity.

The amount of ransom paid to kidnapers is associated with the distance between release and captivity sites, and with the angle between the straight lines that joined these two locations with the place of abduction. Specifically, higher ransom amounts show a statistically significant relationship with greater distances between the locations where victims are held hostage and where they are released ($r_s = .536, p < 0.01$). Similarly, cases in which the ransom amount did not vary much during negotiations and the amount that is ultimately paid to offenders differed less from the amount that was initially demanded, were associated with longer distances between captivity and release sites ($r_s = .507, p < 0.01$).

Table 2.3 Bi-variate Spearman's Rank Order Correlations Between Site Distances, Vertice Angles, and Ransom Amounts

Variable	1	2	3	4	5	6
1 Abduction-captivity distance						
2 Captivity-release distance	-0.045					
3 Release-abduction distance	.774**	0.024				
4 Total distance	.881**	.345**	.812**			
5 Paid ransom	-0.008	.536**	0.144	0.199		
6 Paid ransom/ransom demand	-0.095	.507**	-0.016	0.131	.732**	
7 Abduction vertices' degrees	-.576**	.705**	-.439**	-.235*	.332**	.332**

* Correlation is significant at the 0.01 level (2-tailed).

** Correlation is significant at the 0.05 level (2-tailed).

2.9. Discussion and Conclusions

The literature on ransom kidnappings indicates that the execution of the offence involves at least three sites: abduction, captivity, and release sites (Marongiu & Clarke, 1993). However, previous research that focuses on examining the spatial dimension of

ransom kidnappings focuses exclusively on abduction sites (for example Marteache & Pires, 2020; Pires, Guerette, & Shariati, 2017; Pires et al., 2014). The current study analyzes the spatial clustering of the three site types. The theoretical premises that guide environmental criminology suggests that, due to the relatively higher vulnerability and risk associated with captivity and release sites, offenders may choose locations where they feel safer, have a relatively higher level of control, and perceive they are less likely to be detected, while their choice of abduction sites is constrained by the victim's movement patterns. Based on these assumptions, this study investigated if the spatial clustering of captivity and release sites was similar and differed from that of abduction sites. The findings described in the previous section are consistent with what is suggested by the theoretical framework.

The results produced by the analysis of spatial distributions and concentrations of abduction, captivity, and release sites, revealed a consistent pattern that prevailed across the different levels of geographical resolution that were examined in this paper. All location types shared similar spatial patterns, but there were moderate differences that indicated that the spatial configurations of captivity and release sites were more strongly related and slightly differed to the geographical patterns shaped by the places where victims were seized. These findings are in line with what has been postulated and suggested by previous research. Abduction sites, like in other studies (Marongiu and Clarke, 1993; ONC, 2011; Pires et al., 2014; Stubbert et al., 2015), were geographically concentrated. The similarity found between municipal concentrations and distributions of all site types suggests that victims tend to be held captive and set free in locations relatively near abduction sites. However, the results obtained by the analysis of distances between related sites indicates that, within these general geographical coincidences, there are important distinctions in the spatial structure of abduction, captivity, and release sites for specific cases that exhibit higher levels of similarity between the last two location types. On average, both captivity and release sites tended to be at similar distances from abduction locations, and these distances were, on average, longer than the distance between the places where the victims were held captive and set free. This indicates that, as suggested by others before (Marongiu and Clarke, 1993; Wright, 2009; Aghedo, 2015), the choices of abduction locations are circumscribed by victims' routine movement patterns, and these tend to be in areas away from the places in which offenders feel comfortable. Consequently, once abducted,

victims are transported to locations in which kidnappers feel they have some level of control and will not attract the attention of neighbors or authorities.

Although results show that this was the average scenario, further analysis suggested the existence of another, less common situation. When the angle created by the lines that joined abduction sites to the other two locations was incorporated to the analysis, an interesting relationship emerged. Results suggest that when captivity and release sites were in opposite directions from the abduction location, the distances between those two sites tended to increase and, conversely, their distance to the place where the victim was seized and, additionally, the total distance covered by all sites, tended to decrease. This conveys a different situation in which the victim is abducted, held hostage, and set free within a relatively reduced radius in which the stronger similarity between captivity and release sites is depleted. This is consistent with a scenario suggested by the literature, in which the place of abduction falls within areas where offenders feel comfortable, safe, and in control (Marongiu and Clarke, 1993; Moor, 2008; Yang et al., 2007). The distinct urban layout found in various Latin American countries, where marginalized communities are peppered across cities, even within the most exclusive areas, may shape this scenario.

The findings in this study also suggest that distances between sites are affected by offenders' criminal proficiency. Longer distances between captivity and release sites were associated with larger ransom payments and with smaller differences between ransom demands and actual payments. Ransom was included to assess the influence of the sophistication of kidnappers over the spatial structure of kidnapping sites. Higher ransom payments and smaller differences between demands and payments, were hypothesized to be associated with longer distances and indicative of more skilled offenders. Results revealed that longer distances between captivity and release sites were associated positively and significantly with the ransom measures in the analysis. As explained before, these locations are assumed to be in areas over which offenders exert some level of control. Consequently, longer distances between these sites would suggest a larger area of control, which is consistent with the literature suggesting that ampler mobility radius indicate more skills and, therefore, access to more lucrative crime opportunities (Morselli and Royer, 2008; Paoli, 2002). This assumption is further supported when the type of area where sites are located was included in the analysis. As shown in Figure 2.5, on average, the distance between captivity and release sites was

highest in kidnappings that involved both rural and urban areas. The mixture of urban and rural settings suggests an ampler area of control, which is congruent with more proficient offenders and, thus, with higher ransom payments and efficient negotiations.

This type of ransom kidnapping, which involved longer travelling distances between abduction, captivity, and release sites, may have been impacted the most by some of the crime prevention measures that Salvadoran law enforcement commanders claim helped reduce the kidnapping crisis. According to police officials, implementing quick response protocols to lock down highways and roads near abduction sites after victims were seized and enacting laws that prohibited tinted car windows, which were frequently used by offenders to transport victims securely, are among the measures that allowed them to control the ransom kidnapping epidemic (Ponce et al., 2005). Both measures increase the risk of transporting victims from abduction to captivity sites. The longer kidnappers had to travel, the longer they were exposed to the risk of running into police blockages and being identified by other drivers or pedestrians through clear windows. The attractiveness of the most lucrative crime opportunities, that involved longer travel distances, was eroded by affecting the level of risk perceived by offenders. However, this measure may not be as effective in ransom kidnappings shorter with shorter distances. Since the sites in these offences are closer together and all may fall under an area in which offenders hold a relatively higher degree of control, transit times may be shorter, chances of by-standers spotting kidnappers may be lower, and there may be alternative transportation methods. Perpetrators, thus, might successfully evade road blockages and other measures aimed at intercepting them on their way to captivity sites.

The current paper provides useful insights about the geography of ransom kidnappings. However, it is important to acknowledge certain limitations that need to be addressed by future research on the subject. For instance, the limited size of the data set and the unavailability of more variables associated with victims, offenders, and cases, restricted the analysis and, consequently, the interpretation of the results. The findings are instructive and may serve as the foundation for future research and even inform criminal investigations. Despite the limited size of the dataset, the analysis detected the existence of geographical patterns consistent with the theoretical premises of environmental criminology. Data sets with more observations (incidents and their corresponding locations), however, would allow for a more in depth understanding of

these patterns. This would allow for the use of inferential statistical methods that include control variables to better identify the independent effects of explanatory variables on spatial outcomes that relate to ransom kidnappings. Moreover, information regarding the type of ransom kidnappings, the length of time victims are held, the locations of where ransoms are delivered and where victims and offenders reside, would help enhance the results obtained by the present analysis. Similarly, future investigations should examine the influence of victim and offender characteristics in the spatial structure of ransom kidnappings.

Despite these limitations, the results obtained in this study highlight the relevance of utilizing a spatial approach in the empirical investigation of ransom kidnappings. Although the use of nonparametric statistical methods and other statistical tools that do not allow for the controlling of other factors was preferred due to the size of the data set, the spatial patterns detected in the results are instructive. Findings demonstrate the utility of environmental criminology's theoretical constructs to understand and explain the spatial structure of abduction, captivity, and release sites in ransom kidnappings in contexts such as the one analyzed. Specifically, victims' routine movement patterns were found to influence the general distribution and concentration of all site types and their overlap with kidnappers' areas of control were found to be crucial determinants in shaping the spatial distribution of locations related to specific cases. This sheds light over offender's spatial choices in the governance regime prevalent in El Salvador during the examined period.

Results are instructive and provide empirical confirmation that all-urban ransom kidnapping locations are closer to each other, but urban-rural mixed locations further away. The former is intuitive because urban areas have more places where kidnappers are likely to have control. The latter is also intuitive because increased distances are necessary to move from rural to urban areas and vice versa. However, these findings are relevant considering the competitive governance regime in place in El Salvador during the examined period. Under such conditions, illicit organizations are typically presumed to have limited spatial reach, but these results suggests that some can execute ransom kidnappings that wider geographical spans. Research that examines spatial coverage in offending patterns highlight the importance of considering co-offenders and their networks to better understand differences between offence types and criminal groups (Morselli & Royer, 2008). Consequently, the results obtained here

suggest that in competitive governance regimes, territorial control and reach can be mediated and expanded through offender collaborations and partnerships. The contexts in which these allegiances materialized must be further investigated. They may not necessarily result from the membership to a monolithic and rigid organization, like a street gang. El Salvador's crime scene in the studied period, in fact, included a wide variety of groups, some of which were based on flexible and informal collaborations. Better understanding these networks may not only shed light over the spatial coverage of ransom kidnappings but can also help understand how they shape the spatial structure of abduction, captivity, and release sites. This may lead to a more efficient allocation of resources in kidnapping investigations and quicker and more successful investigations, as well as effective crime prevention approaches.

Chapter 3.

Offender Choices in Extortion for Protection

This section is adapted from Ponce (2021), previously published by Global Crime.

3.1. Introduction

Over the last decade, extortion has grown into a debilitating problem in Latin America, attracting a variety of offenders (Insight Crime & Global Initiative Against Transnational Organized Crime, 2019; International Crisis Group, 2017; Norza & Peñalosa, 2016; Pérez Morales, Vélez, Rivas, & Vélez, 2015; Ruiz, 2020; Vázquez, Félix, & Carballo, 2021; Walker & Vazquez, 2021). Corruption, poor governance, lack of confidence in authorities, high crime rates, and powerful armed non-state actors have facilitated the instauration of protection rackets (Cruz, 2015; Pérez, 2003, 2013; Ungar, 2016). This issue is particularly paralyzing in Central America's Northern Triangle (Insight Crime & Global Initiative Against Transnational Organized Crime, 2019; International Crisis Group, 2017; Ruiz, 2020; Vázquez et al., 2021; Walker & Vazquez, 2021). Authorities across the isthmus struggle to contain the problem, while researchers call for more studies to generate insight to inform evidence-based approaches (Granguillhome Ochoa, 2017; World Bank, 2013). However, the granular data needed to conduct research are not available for every country in the isthmus. This investigation examines a unique business victimization survey conducted in El Salvador that offers a rare glimpse into the extortion business in Central America.

Extortion is El Salvador's main obstacle for economic development (Acevedo et al., 2011; FUSADES, 2016). Its rise is largely attributed to the propagation and evolution of Los Angeles-born MS-13 and both factions of Barrio 18 in the country, Revolucionarios and Sureños (Insight Crime & Global Initiative Against Transnational Organized Crime, 2019; International Crisis Group, 2017; Ruiz, 2020; Vázquez et al., 2021; Walker & Vazquez, 2021). These street gangs exhibit a relatively high degree of sophistication (Ayling, 2011; Farah & Babineau, 2017; Sullivan, 2006), have established a corrupt relationship with politicians and state agents (Dudley & Papadovassilakis,

2020; Labrador & Ascencio, 2016; Lemus, Martínez, & Martínez, 2020; C. Martínez & Valencia, 2016), and use extortion as their primary source of income and to assert and maintain their territorial control (Insight Crime & Global Initiative Against Transnational Organized Crime, 2019; International Crisis Group, 2017; Salguero, 2016). Their success in the extortion business has attracted other actors and, therefore, created a diverse pool of extortionists (Insight Crime & Global Initiative Against Transnational Organized Crime, 2019; International Crisis Group, 2017; Ruiz, 2020; Vázquez et al., 2021; Walker & Vazquez, 2021).

This study investigates extortion in El Salvador from a rational choice perspective. It expands existing extortion classification schemes by uncovering themes in the configuration of offender decisions. The purposive nature of extortionist choices has been well established (Bolle, Breitmoser, & Schlächter, 2011; Campana, 2017; Konrad & Skaperdas, 1997, 1998; Varese, 2013), yet the choice patterns that emerge throughout extortion's crime commission process have not been empirically investigated. This is particularly relevant in contexts such as El Salvador, where extortion has become an attractive business. Offenders operate under different constraints and motivations. Some act bluntly thanks to their partnerships with state agents and politicians, while others take advantage of the sense of insecurity and impunity this produces. The identification of offender choice patterns in this context is crucial to adequately differentiate and successfully address opportunity structures associated with each offence subtype that emerges (Clarke, 1997). The present analysis identifies decision combinations associated with extortion subtypes described in previous typologies and, additionally, uncovers a blend of choices associated with a novel subtype that occurs when offenders that extort victims in areas over which they hold a relatively high level of influence and control, suddenly face different choice-structuring properties as they venture further away from their turfs to locations that operate under another security order within the distribution of local authority established in collaborative governance regimes. The new set constraints faced by offenders in this situation, forces them to shift to a different offence-execution style. The findings presented here not only have relevant implications to address extortion, but also to better understand the effects of collaborative arrangements between illicit organizations and authorities over offender choices.

3.2. The Rational Choice Perspective

The suitability of the rational choice perspective to study instrumental offences, such as extortion, has been widely acknowledged¹. Its unique focus on offender decisions makes it a useful tool to dissect extortive crimes (Campana, 2017; Elsenbroich & Badham, 2016; Marongiu & Clarke, 1993). Victims and extortionists engage in a prolonged chain of strategic interactions, which extends well beyond their initial exchange and takes on multiple configurations (Best, 1982). The rational choice perspective facilitates the deconstruction of such complex crime commission processes (Cornish & Clarke, 2002). It views crimes as a collection of interrelated decisions in which offenders choose how to execute offence-related tasks by assessing the risks, rewards, and costs associated with each alternative (Cornish & Clarke, 2002). The logic used in each assessment is bounded by the amount of information available to offenders and their ability to process it (Cornish & Clarke, 1986). Based on this assumption, offences can be deconstructed into crime scripts through the identification of patterns in offender choices. In crime scripts, offence-related tasks are organized into sequential scenes (Cornish, 1994a, 1994b). The configuration of choices across tasks reveals patterns that shape separate tracks in each crime script which correspond to distinct offence subtypes (Cornish & Clarke, 1987). Each pattern is bound by its own set of choice-structuring properties that place task-specific requirements to perpetrators (Cornish & Clarke, 1987). The identification of choice patterns has been used to refine typologies for a wide variety of offences, from burl poaching (Marteache & Pires, 2020) to victim crossover sexual offences (Beauregard, Leclerc, & Lussier, 2012).

3.3. Subtypes of Extortion for Protection

The existing literature on extortion commonly classifies the offence into systemic and opportunistic subtypes. It attributes systemic extortion to hierarchically structured groups that hold a high degree of territorial control, and opportunistic extortion to loosely organized criminal networks that engage in casual extortion or impostors who pretend to

¹ There is a lack of consensus regarding the fit of the rational choice perspective in the study of expressive offences (For example Coyne & Eck, 2015; De Hann & Vos, 2003; Farrell, 2010; Hayward, 2007; Loughran, Paternoster, Chalfin, & Wilson, 2016).

belong to a criminal organization or gang (Konrad & Skaperdas, 1997; Savona & Zanella, 2019; Smith & Varese, 2001; Transcrime, 2009). Subtypes differ in terms of the role played by offenders in the community and the rewards they seek through extortion. These differences constrain the execution of offence-related tasks.

Systemic extortionists exploit the absence or weakness of state institutions to usurp local governance roles, monopolise the use of force, and offer public services like protection (Skaperdas, 2001). In such settings, extortion for protection functions as an unofficial tax imposed by crime groups or street gangs in exchange of a service (Alexeev, Janeba, & Osborne, 2004; Grossman, 1995). The state's poor performance creates a demand for others to fulfil its duties (Alexeev et al., 2004). Some systemic extortionists can improve security, reduce regular crimes, garner public support (Arias & Barnes, 2017; Aziani, Favarin, & Campedelli, 2020a, 2020b) and even develop partnerships with extorted businesses (International Crisis Group, 2017). Selling protection is one of the easiest ways in which organized crime groups and street gangs can make money, as it requires little effort on their part (Insight Crime & Global Initiative Against Transnational Organized Crime, 2019; International Crisis Group, 2017; Paoli, 2002; Sanchez Jankowski, 1991). However, these offenders also use it to increase control over local resources (votes, services, markets, property, etc.), infiltrate legal businesses, and delimitate geographical boundaries (Savona & Zanella, 2019; Transcrime, 2009). There is an incentive, thus, for systemic offenders to approach extortion intending to develop and maintain long-lasting relationships with victims through repeated victimization (Savona & Zanella, 2019; Transcrime, 2009). Establishing permanent links with victims deepens and extends their territorial influence and control.

Conversely, the literature describes opportunistic extortion as a more predatory, short-lived offence. Perpetrators who engage in this extortion subtype are incapable of, and uninterested in, targeting victims for a prolonged period (Savona & Zanella, 2019; Transcrime, 2009). Norza and Peñalosa (2016), for example, found that some Colombian offenders use extortion to supplement low salaries from legitimate occupations. Similarly, copycat extortionists in Central America and Mexico pose as members of a street gang members or an organized crime group to extort victims (Insight Crime & Global Initiative Against Transnational Organized Crime, 2019; International Crisis Group, 2017; Norza & Peñalosa, 2016; Pérez Morales et al., 2015). Such perpetrators seek monetary rewards (Scaglione, 2016). They prioritize getting as

much money as they can, as quickly as they can from victims (Savona & Zanella, 2019; Transcrime, 2009). Contrary to systemic extortionists, these offenders trick victims to get them to pay. They must complete offences before victims realize, they are being conned.

The risk of being discovered imposes harsher choice structuring properties to opportunistic offenders. The success of an extortion rests on the perpetrator's ability to convince victims to keep engaged until the offence is completed (Best, 1982). Victims assess the seriousness of the threat at every contact to determine if it is safe to report the crime or not (Best, 1982). They may refuse to interact with offenders or contact authorities if they do not perceive the threat is real (Konrad & Skaperdas, 1997). It is up to offenders to make victims believe it is in their best interest to continue with the exchange. Systemic extortionists can achieve this more easily. They have well established criminal reputations, wield a high level of territorial influence and control, and can use pressure tactics to eliminate any reluctance (Konrad & Skaperdas, 1997; Savona & Zanella, 2019; Smith & Varese, 2001; Transcrime, 2009). Offenders are equipped to keep the extortion going for extended periods. Opportunistic extortionists, conversely, must execute their offences in such a way that the danger perceived by victims does not dissipate. Once it does, it is harder and riskier for them to rebuild.

The stricter choice structuring properties faced by opportunistic extortionists influence the way they execute offence-related tasks. Extortion requires perpetrators to carry out certain unavoidable actions. For instance, all extortionists must contact victims, communicate demands, negotiate payments, set a delivery procedure, and collect or forgo payments (Best, 1982). Opportunistic extortionists must limit their contact with victims in each task to protect the credibility of their threats and increase the chances of a payoff. Therefore, interactions with victims are not personal, direct, or abundant. Perpetrators use methods that hide their identity, like anonymous letters (Lombardo, 2002) or mobile telephones (Insight Crime & Global Initiative Against Transnational Organized Crime, 2019), and ask for ransoms that limit their contact and exposure, usually single cash payments. Once victims show any reluctance, opportunistic offenders desist and move on (Scaglione, 2016). Systemic extortionists, conversely, contact victims personally and repeatedly, elicit multiple periodic payments, and may ask for various types of payoffs (Savona & Zanella, 2019; Transcrime, 2009). There is also an incentive for these offenders to use pressure tactics if victims refuse to pay. When a victim does not pay, others may doubt the credibility of the threat posed by systemic

extortionists and, thus, also decide not to pay (Konrad & Skaperdas, 1997). Offenders risk losing money and, additionally, their territorial authority, influence, and control. Under such circumstances, offenders who engage in systemic extortion turn to pressure tactics and harsher threats to reassert their violent reputation and deter anyone else who does not want to pay (Transcrime, 2009).

3.4. Hybrid Extortion

The literature that examines crime Latin America suggests that some extortions blend choices usually not found together in the systemic and opportunistic subtypes considered in current typologies. In Central America's Northern Triangle, for example, convicted gang members who normally engage in systemic extortion, select and target victims remotely to create a personal income stream while inside prison, using smuggled mobile telephones to contact victims (International Crisis Group, 2017). This practice has increased so much in the isthmus that extortions committed in this fashion, from inside correctional facilities, represent 80% of extortions reported in Guatemala (International Crisis Group, 2017). In Mexico, crime groups that conduct systemic extortions in the territories they already control, use a more predatory subtype of the offence to target victims in areas that they want to expand their influence into (Magaloni, Robles, Matanock, Diaz-Cayeros, & Romero, 2020). However, when they take over newly conquered territories, they switch back to systemic extortion and approach victimization with a long-term perspective to garner local support (Magaloni et al., 2020). Both scenarios suggest that offenders who commonly engage in systemic extortion suddenly face circumstances that impose a fresh set of choice structuring properties that forces them to change the way they execute offence-related tasks.

Such situations develop very easily in Latin America's urban landscape. A large percentage of its population lives in marginalized communities (Jaitman, 2015). These areas function under their own set of rules. In Central America and Brazil, marginalized communities are peppered across cities, some even embedded in the wealthier areas (Arias & Barnes, 2017; FLACSO, MINEC, 2010). Social exclusion and concentrated disadvantage make these communities ideal breeding grounds for street gangs and organized crime groups (Arias & Barnes, 2017; Savenije, 2009). Cities operate under plural security orders, as competing illicit groups and official authorities all set and enforce their own rules and regulations in the areas they control (Arias & Barnes, 2017).

Groups and gangs that try to expand their influence to neighbouring communities, which function under a different security order, have an incentive and the resources to force extortion victims to pay. However, they lack the territorial control needed to interact directly, so may turn to more indirect methods to contact victims. The notorious Barrio 18 gang clique in Las Palmas, a marginalized community embedded in the exclusive San Benito neighbourhood in El Salvador's capital city, led by the infamous César Daniel Renderos, "El Muerto," one of the gang's top leaders directly involved in the negotiations between gangs and authorities (Valencia, 2012), illustrates this type of scenario. The clique extorted businesses outside the Las Palmas community, in the neighbouring Zona Rosa entertainment district ("El Muerto, beneficiado por la tregua y acusado de más delitos," 2014; "Pandilleros de la 18 de Las Palmas extorsionan a comerciantes de las colonias San Benito y Escalón," 2014). This kind of targeting might lead victims and authorities to mistake such extortionists with impostors. Threats may not be taken seriously or addressed accurately, which could motivate offenders to use violence in order to increase the danger perceived by victims.

Current extortion typologies do not consider hybrid offences. The blend of actions associated with this offence subtype and the potential consequences derived from misinterpreting it, highlight the importance of gaining a better understanding of the choices that shape each extortion subtype. Accurately identifying patterns in offender decisions would not only help refine future research on extortion but also provide policy makers and law enforcement officials with a more refined picture of the offence to inform the design of crime prevention strategies.

3.5. Extortion and Street Gangs in El Salvador

In El Salvador, the surge and propagation of extortion for protection is linked to the expansion and evolution of MS-13 and Barrio 18 (FUSADES, 2016; Insight Crime & Global Initiative Against Transnational Organized Crime, 2019; International Crisis Group, 2017; Salguero, 2016). According to police statistics, the extortion victimization rate jumped six-fold between 2005 and 2006 to approximately 42 per 100,000, and peaked in 2009 with 74 per 100,000. The average rate between 2013 and 2018 was approximately 46 per 100,000, half that of 2009. However, previous research estimates that, in El Salvador, approximately 70% of extortion victims do not report their victimization to authorities (Insight Crime & Global Initiative Against Transnational

Organized Crime, 2019; Salguero, 2016). Despite this elevated dark figure, official data show the problem has spread across the country. Figure 3.1 shows the municipal distribution of extortion victims between 2013-2015. The map reveals that extreme high values are present across El Salvador and do not concentrate in a specific region.

MS-13 and the two competing factions of Barrio 18, Sureños and Revolucionarios, now collectively cover almost every municipality in El Salvador.² The most recent estimates show there are around 70,000 gang members in the country, who operate with the help of a support network of approximately 400,000 people, comprised mainly by relatives, partners, and other individuals who depend on gang-related illicit activities to subsist (International Crisis Group, 2017). Extortion rackets are run by gang cliques in their own territory, which usually includes one or multiple adjacent neighbourhoods, where they collect fees from local businesses and buses, taxi cabs, and delivery trucks that enter their turf (Avelar, 2016; Insight Crime & Global Initiative Against Transnational Organized Crime, 2019; International Crisis Group, 2017; Martínez, 2015; Papadovassilakis & Dudley, 2020; Salguero, 2016). However, the fear generated by street gangs, combined with elevated crime rates, rampant levels of impunity, and the accessibility to mobile telephones have attracted others to the extortion business, like copy-cat extortionists who pose as gang members and incarcerated gang members who use smuggled mobile telephones to extort victims (Insight Crime & Global Initiative Against Transnational Organized Crime, 2019; International Crisis Group, 2017).

This study explores extortionists' choices during a period in which street gangs had tightened their grip over communities in El Salvador, largely due to an arrangement reached with authorities that enhanced their local influence and control. In 2012, top leaders in MS-13 and both factions of Barrio 18, who were serving long sentences in the maximum-security prison in Zacaecoluca, initiated a process of secret negotiations with state agents and the ruling political party, the FMLN (Aguilar, 2018, 2019; Amaya & Martínez, 2016; Dudley, 2020). Initially, gang leaders agreed to drive down homicide statistics in exchange of being transferred to less strict correctional facilities, but

² There are smaller and less organized street gangs in El Salvador, but their presence is marginal. See Rosen & Cruz (2019).

eventually extended this agreement to include cash payments and a diverse variety of other benefits (Aguilar, 2018; Amaya & Martínez, 2016). As negotiations developed, street gangs also agreed to provide electoral support in favour of the FMLN for the 2014 presidential elections, through various means including voter intimidation (Aguilar, 2018; Amaya & Martínez, 2016). Both arrangements not only generated the conditions for gangs to strengthen their internal cohesion and already robust territorial control, they also provided the means for incarcerated leaders to pursue it (Cruz & Durán-Martínez, 2016). Local governance, in essence, was shared between public officials and street gangs in exchange of electoral support (Insight Crime & Global Initiative Against Transnational Organized Crime, 2019; International Crisis Group, 2017; Salguero, 2016). Such agreements legitimize the role played by street gangs as the de facto local authority and, therefore, remove the constraints that limit their rule-setting and social control capabilities by allowing and even motivating them to act more visibly and bluntly so that they could follow through with their agreements. The current study investigates how offender choices in the execution of extortions are shaped under this type of arrangement.

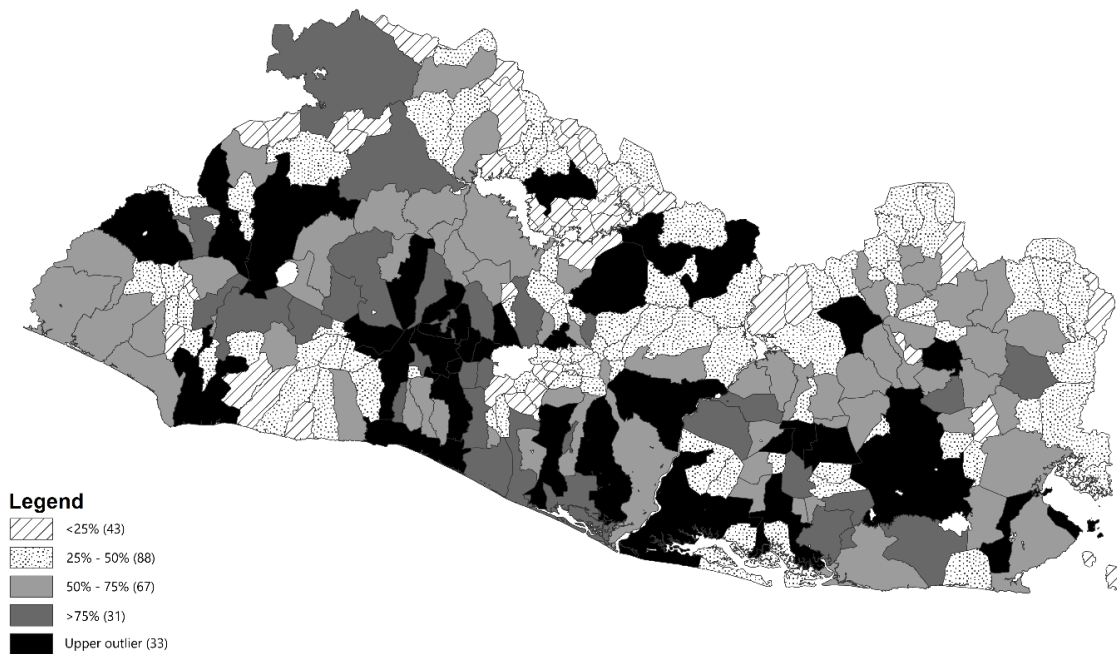


Figure 3.1 Box map of extortion victims in El Salvador 2013-2015.

3.6. Aim of Study 2

This investigation identifies patterns in offender choices associated with subtypes of extortion in El Salvador. It examines data from the 2015 Micro and Small Business Victimization and Security Perceptions Survey conducted by FUSADES. The survey's extortion module contains 51 items that elicit information about choices made by extortionists. FUSADES conducted this survey among micro and small businesses, such as neighbourhood convenience stores, diners, and independent entrepreneurs. This economic sector is the hardest hit by extortion in the country (Acevedo et al., 2011; FUSADES, 2016).

3.7. Data

The survey used in this study collected information from 3,977 micro and small businesses across El Salvador.³ Most surveyed establishments had two employees or less (73.1%), were in a commercial area or main street (63.7%) and were housed in a single facility (88.4%). Extortion victimization was reported by 909 businesses, which represents 22.9% of the sample. Interestingly, however, 46.4% identified extortion as a serious local problem. This suggests that a significant portion may have not reported their victimization. Due to lack of information across offence-related tasks, 40 extortion cases were dropped from the analysis. The final sample consists of 869 reported extortions.

3.7.1. Offender Choice Variables

Survey data was coded into 63 dichotomous variables to show the presence or absence of extortionist choices. Multiple offender choice options were captured through different procedural permutations in the execution of 6 offence-related tasks: contacting the victim, setting demands, establishing payment procedures, making threats, using pressure tactics, and offering benefits for complying with demands. The analysis investigates whether patterns in choice configurations reveal differences consistent with some offenders having to deal with less restrictive constraints than others. The

³ For details about the survey's sampling procedures see FUSADES (2016).

preliminary examination of the data determined that a small group of 9 offender decisions occurred in less than 2% of the sample. These variables were dropped from the study because their inclusion reduced the graphical solution's goodness-of-fit indicators. The final analysis, therefore, included 53 offender choices. Appendix C contains the list of extortion tasks and offender decisions that were considered in the analysis.

3.7.2. Local Features

The victimization survey asked respondents to identify local crime problems associated with street gangs and about their perspective regarding the Salvadoran criminal justice system and responses to crime. Their answers were used to distinguish gang-controlled locations from other areas. Systemic extortions were expected to be more common in places where respondents identified gang-related crime, such as homicide and extortion, and the presence of gangs and gang symbols as salient problems. This was hypothesized to indicate a relatively elevated degree of local gang influence and control. Data was coded into dichotomous variables to show whether street gangs, homicide, extortion, graffiti⁴, and crime in general were designated by respondents as significant local issues. It was expected that people in gang-controlled neighbourhoods would additionally exhibit negative attitudes towards law enforcement and favour extra-legal and harsher responses to crime. Residents in communities that endure high crime rates and report frequent negative interactions with the police may develop legal cynicism and, therefore, question the legitimacy and effectiveness of formal social control agents and turn to other means to cope with insecurity (Kirk & Matsuda, 2011; Kirk & Papachristos, 2011; Sampson & Bartusch, 1998; Sierra-Arévalo, 2016). This study measured attitudes towards police, crime, and criminal justice through Likert-type survey items that asked surveyed establishments to rate police effectiveness, trust in the police, and their support for harsher laws, charging juveniles as adults, extra-legal justice, and youth programs.

⁴ Gangs use graffiti in El Salvador to claim ownership over neighbourhoods. See Cruz (2010).

3.8. Analytic Approach

The analytic approach used in this investigation includes three steps. The first step was to identify patterns in extortionist decisions. For this initial stage, the analysis borrowed a method that has been widely used by criminal profiling researchers. Specifically, Salfati and Canter's (1999) application of multidimensional scaling (MDS) methods to study homicide crime scene actions was used to analyze offender choices and identify patterns. This approach was selected for two reasons. First, Salfati and Canter's (1999) methodology have been widely used to validate offence subtypes through the co-occurrence of crime scene actions in a variety of countries and cultural settings (Salfati & Bateman, 2005; Salfati & Dupont, 2006; Salfati & Haratsis, 2001; Salfati & Park, 2007; Salfati & Ponce, 2007; Santtila, Hakkanen, Canter, & Elfgrén, 2003). Second, their analytic approach acknowledges that crimes often do not fall neatly into pre-defined subtypes but, rather, there is a notable proportion of cases that exhibit a combination of actions frequently associated with two or more subtypes. This allowed the current study to distinguish between systemic, opportunistic, and hybrid extortions.

MDS is an exploratory statistical technique that produces a relatively easy to interpret graphical representation of the strength of associations between multiple variables in complex datasets (Borg & Groenen, 2005; Jaworska & Chupetlovska-Anastasova, 2009; Young, 1987). The graph assigns coordinates to each variable and plots them as points in a two- or three-dimensional space according to their occurrence and co-occurrence. Variables with the highest occurrence rates are positioned at the centre of the plot and the rest in concentric circles with lower frequency variables placed in the periphery. Distances between points illustrate the frequency of co-occurrence between variables. Jaccard similarity coefficients were used to measure the strength of the associations between extortionist choices. The MDS graphical representation of the underlying choice structure was produced with the PROXSCAL procedure in SPSS. The plot was inspected to identify thematic groupings of choices in the spatial configuration of points consistent with extortion subtypes, particularly the two produced by opposing choice structuring properties, systemic and opportunistic extortions. Choice themes were expected to be clearer in these two subtypes. Studies that use Salfati and Canter's (1999) methodology show that choices in hybrid offences are less clearly identified in

MDS plots. Given that this subtype involves choices present in other subtypes, their location in the graph is less obvious.

The second step in the analysis was to classify each case in the sample into an offence subtype (i.e., systemic, opportunistic, or hybrid). The designation of cases was done using Salfati's (2000) stringent criterion. This procedure required that each case was examined to identify the offender choices that were present and then determine if they exhibited a dominant theme consistent with an offence subtype. Cases were designated into a subtype when the number of variables (or choices) associated with an offence subtype choice theme at least doubled the rest of variables in the case. Extortions that did not meet this threshold involved a combination of choices of both systemic and opportunistic subtypes, so they classified as hybrid extortions. Additionally, Chi-square tests and Bonferroni post-hoc tests were used to characterize hybrid extortions by establishing statistical significance in of similarities and differences with the extortion subtypes regarding key offender choices.

The third and last step in the analytic approach was to investigate whether case classifications were associated with local features consistent with differing levels of gang control and influence. The items included in the data set did not provide enough variables to conduct an exhaustive and more complex analysis that controlled for other relevant environmental features. Consequently, this portion of the analysis was limited to variables associated with gang presence and control exclusively. Given this limitation, we employed non-parametric tests to establish individual associations between offence subtypes and local features. The statistical significance in differences found between extortion subtypes regarding perceptions of police effectiveness, trust in the police, and support for harsher laws, adolescents tried as adults, extra-legal justice, and youth programs was estimated with Kruskal-Wallis tests and pair-wise comparisons.

3.9. Results

3.9.1. Offender Choice Patterns

The bi-dimensional solution generated by the PROXSCAL routine in SPSS is presented in Figure 3.2. The normalized raw stress score for the graph is 0.05 and Tucker's congruence coefficient 0.98. Both indices suggest that the plot in Figure 3.2 is a

good representation of the associations between offender choices. High frequency choices, identified in over 50% of cases, depict extortion in its most basic form: perpetrators who claim to be gang members demand money from victims under threats (see Table 3.1 and 3.2). Moderate frequency choices gravitate towards two distinct execution styles that portray two different subtypes of extortion.

The left area of the graph contains variables that depict an overt and prolonged execution, consistent with the systemic extortion typically linked to street gangs and organised crime groups. Choices are anchored around multiple payment variables. Their spatial configuration suggests that, compared to other offenders, those who retrieved periodic payments offered protection to victims and used pressure tactics mainly to target business owners or their families after the initial contact. The stage in which pressure tactics were used suggests they were part of a negotiation process in which offenders sought to recalibrate their position in the exchange and deal with uncollaborative victims. This area of the graph also holds the variable associated with multiple sporadic payments. Its closeness to variables that show extortionist demanded goods and services suggests these were the most common type of sporadic payments. Together, these variables convey a scenario in which extortionists develop a relationship with victims and open to receiving payments other than money.

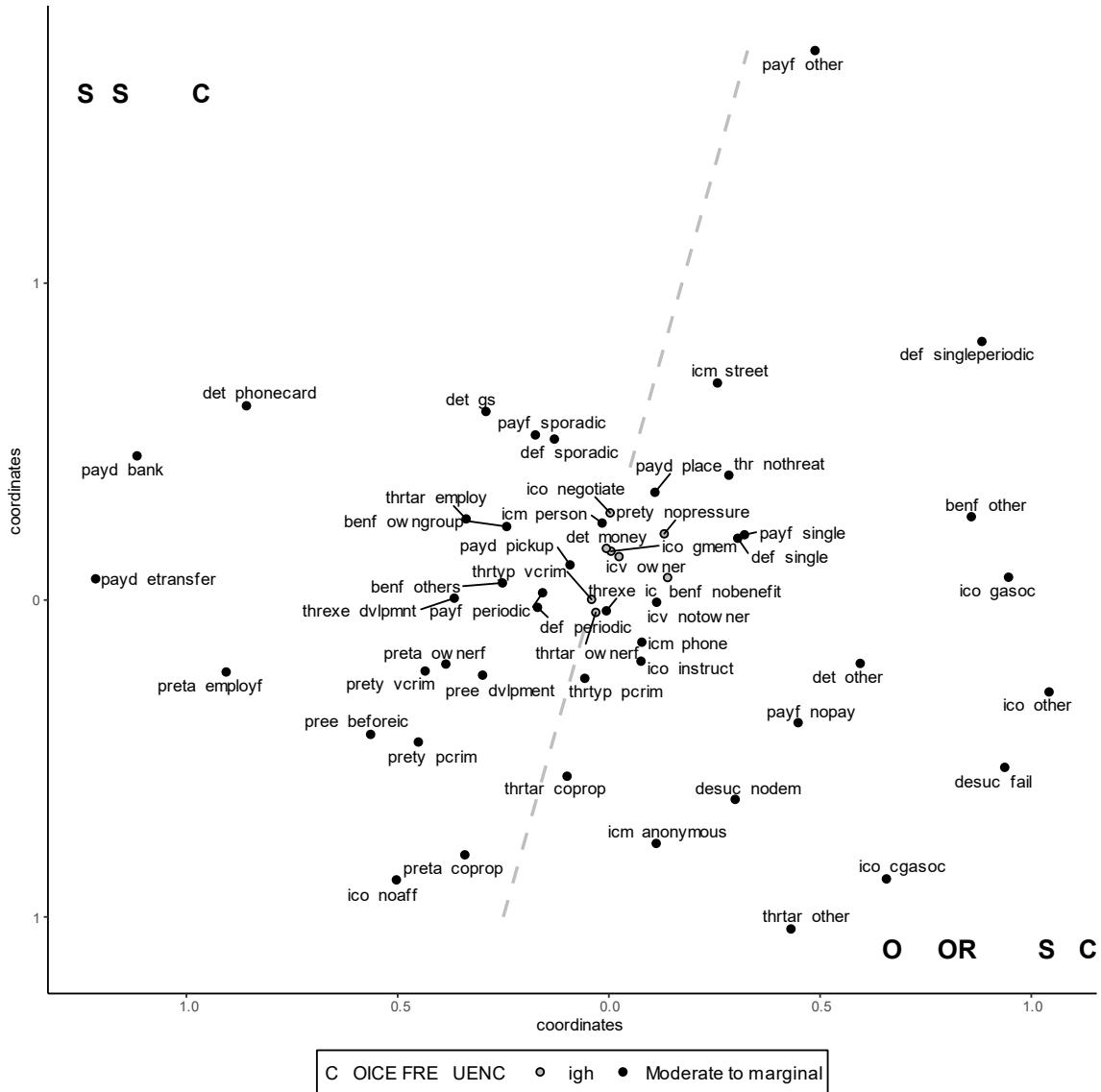


Figure 3.2 MDS Graph of Extortionist Choices

Offender choices displayed in the right portion of the plot portray a more covert and short-lived execution, consistent with the one described in the literature for opportunistic extortions perpetrated by casual extortionists and impostors. This area of the graph combines variables that suggest offenders tried to hide their identity with others that conveyed that the offenders lacked territorial control and were unwilling to develop a permanent relationship with victims. Specifically, the variables that indicated that the initial contact was made via a telephone call or an anonymous letter, were found close to the variables that showed perpetrators received a single payment, no payment, or that payments were retrieved at a different location. The variable that indicated that

the initial contact was used to provide instructions was also found in this part of the plot. These choices imply perpetrators had an incentive to desist under certain circumstances, limit contacts with victims, and move the extortion to locations where they felt safer.

3.9.2. Extortion Subtypes

Criminal profiling studies use Salfati’s 62% threshold as the benchmark to establish the validity of crime scene actions groupings to distinguish between offence subtypes (Salfati, 2000). The current study classified 70% of extortions as either systemic or opportunistic using choice agglomerations (see Table 3.3). The remaining 30% of offences did not exhibit a dominant choice theme and, therefore, were designated as hybrid extortions.

Table 3.1 High and Moderate Frequency Choices

Offence tasks	High Frequency (% of Total Cases)	Moderate Frequency(% of Total Cases)
Initial Contact	Offender gang member (80) Owner initially contacted (73) Started negotiating (63)	In person (50) By telephone (35) Instructions given (33)
Demands	Money (73)	Periodic delivery (39)
Payments		Picked up by offender (47) Periodically delivered (42)
Benefits	No benefits were offered (62)	
Threats	Violent crimes (52) Against owner or family (52) During initial contact (51)	No threats employed (37)
Pressure tactics	No pressure tactics employed (82)	

Table 3.2 Low and Marginal Frequency Choices

Offence tasks	Low Frequency (% of Total Cases)	Marginal Frequency (% of Total Cases)
Initial Contact	Owner was not contacted (28)	In street (9) Through anonymous letter (5) Offender gang associate (4) Offender crime group associate (2) Offender not affiliated to group (4) Offender other (3)
Demands	Single delivery (18) Sporadic deliveries (14)	Free goods or services (9) Did not make any demands (9) Demanded other things (6) Prepaid phone cards (3) Not allowed to make demands (3) Went from single to periodic deliveries (2)
Payments	No payment (27) Designated place (15) Single payment (14) Delivered sporadically (14)	Payments through bank deposit (2) Electronic transfer payments (2) Payments with other frequency (1)
Benefits	Protection against others (17) Protection against own group (15)	Other benefits offered (5)
Threats	Property crimes (14) Against employees or families (13) During development (11)	Against company property (7) Against others (2)
Pressure tactics	During development (11) Targeted owner or family (11)	Committed violent crimes (10) Committed property crimes (6) Pressure tactics before initial contact (6) Against company property (4) Against employees or their families (3)

Non-parametric tests confirmed the differences found in the MDS choice agglomerations associated with systemic and opportunistic extortions. Opportunistic offenders contacted victims via telephone, asked for single payments, and desisted without payments at a statistically significantly higher proportion than systemic offenders (see Table 3.4). The latter, conversely, asked for multiple payments, contacted victims personally, and used pressure tactics more often. Tests also showed that systemic extortions occurred in areas where gangs exhibited stronger territorial control. Victims in systemic extortion reported gangs, extortions, and graffiti as salient local problems at a statistically significantly higher rate than victims in opportunistic extortion. Additionally, they perceived the police to be less effective ($p = .001$), distrusted the police more ($p =$

.010), and displayed more support towards harsher laws ($p = .006$), the death penalty ($p = .018$), charging youths as adults ($p = .009$), and extra-legal justice ($p = .016$) (see Table 3.4).

Table 3.3 Case Classification

Subtype of Extortion	Frequency	Percent
Systemic	306	35%
Opportunistic	307	35%
Hybrid	256	30%
Total	869	100%

Table 3.4 Key Offender Choices and Local Problems

Variable	Extortion Subtypes (% of n)			χ^2 (df)	p-value
	Systemic	Opportunistic	Hybrid		
n	306	307	256		
Offender Choices					
Single payment	5 (2)*	88 (29)*	27 (12)	94.78 (2)	0.000
No payment	4 (1)*	192 (64)*	35 (15)*	318.88 (2)	0.000
Sporadic payments	63 (21)*	7 (2)*	50 (22)*	55.73 (2)	0.000
Periodic payments	227 (76)*	12 (4)*	119 (51)*	324.73 (2)	0.000
Personal contact	222 (74)*	98 (32)*	117 (47)	109.57 (2)	0.000
Phone contact	59 (20)*	147 (48)*	93 (38)	54.59 (2)	0.000
Violent crime	47 (16)*	2 (1)*	31 (13)*	44.56 (2)	0.000
Local Features					
Gangs	280 (92)*	250 (81)*	230 (90)	16.62 (2)	0.000
Homicides	141 (46)	118 (38)	119 (46)	4.93 (2)	0.085
Extortion	285 (93)*	254 (83)*	225 (88)	10.78 (2)	0.005
Graffiti	163 (53)*	130 (42)	102 (40)	11.99 (2)	0.002
Crime	239 (78)*	201 (65)*	179 (70)	14.69 (2)	0.001

* Bonferroni post-hoc test detected a statistically significant difference.

Table 3.4 also shows hybrid extortion combines choices associated with systemic and opportunistic extortions. Compared to offenders in opportunistic extortion, for instance, those who perpetrated hybrid extortions asked for single payments and desisted before receiving a payment at a statistically significantly lower proportion but demanded multiple payments and used pressure tactics significantly more often.

However, when contrasted with offenders in systemic extortion, they contacted victims via telephone at a significantly higher rate and used personal contacts significantly less often. Street gangs also had relatively less control over the areas where hybrid extortions were perpetrated compared to the places where systemic extortions occurred, but it was not as weak as where opportunistic extortions took place. The proportion at which victims of hybrid extortion identified gangs, extortion, graffiti, and crime was not statistically significantly different than in systemic or opportunistic extortion. However, victims of hybrid extortion did have better perception regarding police effectiveness ($p = .001$), displayed more trust in the police ($p = .003$), and reported lower support for vigilante justice ($p = .002$) compared to victims of systemic extortion.

Table 3.5 Perceptions of the Police and Responses to Crime

Variable	Extortion Subtype Mean Rank			χ^2 (df)	p-value
	Systemic	Opportunistic	Hybrid		
Police effectiveness	371.92	444.34	444.98	17.69(2)	.000
Confidence in police	376.62	433.95	444.74	13.29(2)	.001
Harsher laws	447.37	393.01	409.91	9.92(2)	.007
Death penalty	441.90	392.31	402.03	8.28(2)	.016
Charging adolescents as adults	447.10	398.06	409.30	9.54(2)	.009
Extra-legal justice	452.95	399.89	384.11	13.35(2)	.001
Youth programs	437.35	395.13	426.66	7.08(2)	.029

3.10. Discussion and Conclusions

The current investigation provides an unusual glance into the extortion business in Central America's Northern Triangle, largely attributed to Los Angeles-born street gangs MS-13 and Barrio 18. It examines extortion in El Salvador during a period in which street gangs increased their local influence and control through secret negotiations with state agents and political parties. This type of arrangement legitimizes the informal authority street gangs exercise in the communities they control. The current study examined extortionist choices under these conditions, overcoming the limitations generally imposed by the lack of data in the isthmus with a unique victimization survey that included a robust extortion module. The results expand on previous literature by identifying patterns in offender choices associated with systemic and opportunistic

extortion subtypes. Additionally, the analysis uncovered a peculiar blend of decisions exhibited by an extortion subtype described in the literature of crime in Latin America, designated as hybrid extortions. Choice-structuring properties associated with each extortion subtype carry important implications for the development prevention policies aimed at curbing extortion in settings such as El Salvador.

The results in this study suggest extortionists' territorial control and the rewards they seek through extortion are central choice-structuring properties. They provide incentives to offenders and force constraints that dictate the way they choose to perpetrate extortions. Both the territorial control exercised by offenders and the rewards they pursue through extortion have been used in previous literature to distinguish systemic from opportunistic extortion (Savona & Zanella, 2019; Transcrime, 2009). The findings described here suggest that they regulate the frequency, visibility, and persistence exhibited by extortionists. Perpetrators who engage in opportunistic extortion, for instance, lack territorial control. This forces them to look for ways to trick and intimidate victims, and provides an incentive to hide their identity, complete the offence quickly, minimize interactions with victims, and move on once the credibility of their threats is questioned. Since they do not have a permanent arrangement with victims, their communities, or other key actors (Konrad & Skaperdas, 1997; Savona & Zanella, 2019; Smith & Varese, 2001; Transcrime, 2009), simply walking up to victims to demand or collect payments is not a possibility for them.

These constraints are overcome through methods available for potential extortionists to trick victims into paying, maintaining distance, and completing the offence quickly. Opportunistic extortionists can perpetrate offences only if they can engage with victims in such a way that they conceal their identity and deceive them into perceiving an unrealistic level of risk long enough to be paid. In El Salvador, some criminal groups and even otherwise law-abiding individuals extort businesses, relatives, and employers by exploiting the fear generated by MS-13 and Barrio 18 (Insight Crime & Global Initiative Against Transnational Organized Crime, 2019). Victims are conned to get them to pay. According to authorities, this subtype represents between 40% to 70% of all extortions (Insight Crime & Global Initiative Against Transnational Organized Crime, 2019). Crime prevention policies that target this extortion subtype should focus on these methods. If offenders, for instance, find it difficult to hide their identity, contact victims remotely, and

use their most effective deception techniques, opportunistic extortion may lose its appeal.

The choice structuring properties in systemic extortion are quite different. The results suggest that strong gang territorial influence and control removes constraints that other offenders must overcome. This is consistent with previous literature that describes systemic extortion (Savona & Zanella, 2019; Transcrime, 2009). Offenders that engage in this subtype of the offence play an important and visible role in the communities they control. Their influence is particularly robust in countries like El Salvador, where state agents, politicians, and gang leaders have established corrupt partnerships based on sharing local governance (Aguilar, 2018, 2019; Cruz & Durán-Martínez, 2016). Under such conditions, victims may not view extortionists as mere criminals, but as authority figures or even partners. This kind of status in the community not only allows extortionists to move freely and openly without putting themselves at risk. Previous explorations also argue that it provides an incentive for systemic extortionists to develop long-lasting relationships with victims to maintain and deepen their control over local resources (Savona & Zanella, 2019; Transcrime, 2009). Offenders in cases designated as systemic extortions in the current analysis did not exhibit signs of being preoccupied about hiding their identity. The execution of offence-related tasks was carried out in an open and blunt manner. Perpetrators also opted for the repeated victimisation of businesses at a higher proportion.

Arrangements between extortionists, authorities, and politicians also provide an incentive for other actors in the community and even victims to favour a permanent relationship with perpetrators. In El Salvador, MS-13 and Barrio 18 have established corrupt partnerships based on sharing local governance (Aguilar, 2018, 2019; Cruz & Durán-Martínez, 2016), infiltrated legal businesses, and even struck partnerships with key community figures through extortion (International Crisis Group, 2017). Having a tight grip over their turf is crucial to offer benefits to specific political candidates and parties, public officials, and businesses. Systemic extortion, therefore, makes up not only the primary source of income for street gangs in El Salvador (Insight Crime & Global Initiative Against Transnational Organized Crime, 2019; Salguero, 2016) it also provides access to a variety of benefits for perpetrators and those with whom they have struck deals. Besides politicians and businesses, street gangs have a wide support network, approximately six times larger than the estimated gang membership in the country, that

benefits from extortion. The opportunity structures that allow systemic extortion to emerge are associated to the territorial control held by extortionists and to the dependence of others in the commission of extortion and the benefits it produces. Prevention policies aimed at this offence subtype should focus on weakening offenders' territorial control and reducing the monetary and non-monetary benefits produced through extortion for different actors.

The choice-structuring properties in hybrid extortion combine elements found in both systemic and opportunistic extortion. Like opportunistic extortionists, offenders that engage in hybrid extortion must deal with restrictions associated with lack of territorial control and, at the same time, have an incentive to establish long-lasting relationships through repeated victimization, like systemic extortionists. The findings suggest that hybrid extortions occurred in areas that serve as buffers between neighbourhoods controlled by street gangs and the rest of the city. The variables used to measure the level control exercised by street gangs was not as strong as in the places in which systemic extortions were reported, but not as weak as in the areas in which opportunistic extortion took place. Hybrid extortionists also asked for multiple payments and use pressure tactics with significantly more frequency than opportunistic offenders. This suggests that offenders were motivated and equipped to deal with victims who refuse to comply with their demands but were forced to contact and interact with victims as opportunistic offenders would.

The scenario conveyed by these findings suggests that hybrid extortions are consistent with extortions perpetrated by gang members outside the neighbourhoods they control. Previous investigations, for instance, reveal that street gangs sometimes target businesses in neighbouring communities to expand their territorial influence and incarcerated gang members extort businesses remotely to establish a personal income stream (International Crisis Group, 2017). Given that these extortions are perpetrated in areas where perpetrators lack territorial control, they are forced to use contact methods used by opportunistic extortionists. This may lead victims and authorities to confuse hybrid extortionists with opportunistic extortionists respond in a way that may motivate offenders to use pressure tactics. This is particularly noteworthy considering that a third of reported extortions were designated as hybrid. Additionally, certain crime prevention campaigns in context like El Salvador encourage victims not to answer telephone calls from extortionists. This suggests that a significant portion of victims who are targeted by

hybrid extortionists may be given advice that instead of preventing their victimization may put them at risk. Although hybrid extortionists contact victims remotely, they are able and willing to use pressure tactics to coerce payment. Incarcerated gang members, for example, enlist the help of people outside prison to carry out offence-related tasks (International Crisis Group, 2017). Like in systemic extortion, offenders are not the only people interested in developing permanent relationships with victims. Their partners may also support and aim for the expansion of their territorial control. The proximity of businesses in areas adjacent to gang turfs exposes them to a higher risk. These similarities between hybrid and systemic extortion suggest prevention that target them should focus on similar aspects. Additionally, policy makers should be cognizant of the potential risks associated with campaigns put victims of hybrid extortion at an increased risk.

This study provides useful insights about extortion in contexts such as El Salvador, where extortionists have established a governance arrangement with state agents and politicians. Despite these contributions, the investigation has limitations that need to be addressed. The analysis, for instance, examined information collected exclusively from the economic sector most affected by extortion in El Salvador. Expanding the study to include other business sectors and even the victimization of individuals would help provide further insights. This study's results may also reflect the unique features of extortion in El Salvador, where a relatively reduced number of gangs fight over control. Similar research should be conducted in contexts where multiple street gangs and organized crime groups compete. Lastly, this investigation is based solely on the victim's perspective. Adding the offender's point of view would complement the findings presented here.

Despite these limitations, the current study highlights important aspects about extortion that future research should explore further. It particularly emphasizes the importance of exploring the spatial dimension of extortion. The results suggest that systemic, opportunistic, and hybrid extortions happen in locations that differ in terms of the degree of control exercised by street gangs. However, most research on extortion, with a few exceptions (for example Estévez-Soto, Johnson, & Tilley, 2020), neglects to examine the geography of the offence. Qualitative research constitutes an attractive alternative to gain useful insight about the places associated with distinct extortion subtypes and their spatial interaction. This sort of exploration can provide a solid

foundation that informs the design of more robust quantitative explorations of the spatial aspect of extortion. Another area this investigation draws attention to are the illicit networks behind extortion rackets. Both systemic and hybrid extortion benefit people that depend on offenders and their territorial influence and control. Improving our understanding of how this interdependency shapes extortion may help design more targeted approaches.

Chapter 4.

Study 3. Offender Choices Associated with Interaction Patterns

4.1. Introduction

The survival of criminal organizations largely remains a puzzle to criminologists. Most groups dissolve soon after they form and those that manage to persist and become household names are few and far between (Bouchard & Morselli, 2014; Duxbury & Haynie, 2019; Ouellet, Bouchard, & Charette, 2019; Reuter & Paoli, 2020). Street gangs have a particularly short lifespan. The vast majority does not survive the transition to adulthood (Pyrooz, 2014). Given the pressures to stay small, and the efforts invested into dismantling criminal organizations that become larger than usual, a small portion of criminal groups that subsist can be labeled as resilient; that is, they have demonstrated a capacity to withstand pressures, and potentially adapt their methods to stay in business for a long time (Ayling, 2009). The ability to endure and regenerate to keep operations unaffected is particularly important for crime groups and street gangs that rely heavily on their territorial control to subsist and compete.

Yet, the magnitude and nature of these adaptations, or how they are articulated and implemented, is mostly unknown. Part of the challenge for researchers is to track organizations long enough to document their functioning before and after an external shock, like a law enforcement intervention, the loss of a leader, or a gang war. Another obstacle is the lack of availability and access to suitable data points to assess change. Ethnographic work can provide rich insights into the process of change and decision-making within gangs and criminal organizations (Curtis & Wendel, 2007; Decker & van Winkle, 1996; Densley, 2014; Fleisher, 1998; Thrasher, 1963; Vargas, 2014; Venkatesh, 2008; Whyte, 1943). Purely qualitative data, however, may restrict the view of these organizations and the specific adaptive behaviours of all their members, as well as hinder the capacity to accurately document and examine change. An alternative is to focus on social interactions. Network data provide a means to record and measure the internal functioning of organizations by mapping and analyzing patterns in the communication between members, their interactions, and cooperation for action

(Berlusconi, Calderoni, Parolini, Verani, & Piccardi, 2016; Bouchard, 2020; Calderoni & Superchi, 2019; Morselli, 2009; Ouellet et al., 2017; Papachristos, 2011). The underlying assumption in these investigations is that the interaction patterns that emerge among members of these groups reflect conscious decisions aimed at balancing efficiency and security to ensure their organizations' survival (Morselli et al., 2007). While a growing number of studies have used network data obtained from a diverse variety of sources to describe criminal organizations, few have been able to rely on longitudinal data to document specific changes as an organization experiences adversity (Airola & Bouchard, 2020; Bichler, Norris, & Ibarra, 2020; Bright & Delaney, 2013; Bright, Koskinen, & Malm, 2019; Ouellet et al., 2017). Documenting the processes of change within an organization as members react and adapt to a specific policy remains relatively rare and yet, essential to properly plan the nature and scope of gang policies and interventions.

The current study examines resilience in the MS-13, one of the super gangs of Central America in the context of the implementation of a secret deal between the gang and the state for violence reduction, but also its eventual dissolution. The virtually uncontested grip held by illicit organizations in Latin America over large portions of the territory is largely attributed to the collaborative arrangements they establish with state agents (Arias, 2017; Ungar, 2013, 2020). These understandings, however, are fragile, volatile, and may motivate criminal groups to hide violence and even become more organized and cohesive (Cruz, 2019; Cruz & Durán-Martínez, 2016; Freeman & Felbab-Brown, 2021). Little is known about how illicit organizations prepare to overcome the unavoidable confrontations that follow the dissolution of partnerships with state agents. This investigation recreates the social organization of MS-13 in El Salvador and its resilience mechanisms using granular data rarely available to researchers to analyze its capacity to foresee and prepare for such crises. This study takes a mixed methods approach that combines the analysis of focus group interviews with Salvadoran prosecutors and network analysis to examine resilience mechanisms at different levels of MS-13's organizational structure, both under normal circumstances and during a significant disruption launched by law enforcement agencies after the culmination of an understanding between the gang, state agents, and the ruling political party.

Despite the risks and uncertainties associated with negotiating secretly with illicit organizations, this approach is progressively viewed by public officials as a justifiable

and even unavoidable ingredient of violence reduction policies in complex settings such as those found in the Global South (Freeman & Felbab-Brown, 2021). Its adoption and success is largely dependent on whether illicit organizations have developed and are able to maintain a sufficiently robust internal cohesion and a solid structural configuration to harness members and assure they will follow through any agreements reached with authorities (Cruz, 2019; Cruz & Durán-Martínez, 2016; Freeman & Felbab-Brown, 2021). State agents are generally unwilling to deal with the political backlash of negotiating with criminal groups, which makes agreements even more fragile, complicates the implementation of oversight mechanisms to avoid the development of corrupt quid pro quo relationships, can inadvertently (or even deliberately) empower illicit organizations instead of dismantling them, and strengthen their cohesion (Cruz, 2019; Cruz & Durán-Martínez, 2016; Freeman & Felbab-Brown, 2021). This study aims to provide insight about the resilience of illicit organizations in the context of the failure of a violence reduction approach based on secret negotiations by examining the patterns that emerge from the way in which MS-13 members choose to interact. Better understanding the survival of criminal groups under these conditions can help assess the risks and opportunities associated with the implementation of such strategies. The sections below provide some context on the gang itself and the specific circumstances that led to the secret deal and its breakdown. The first section reviews the concept of resilience, and how it will be used for the purpose of this study.

4.2. Resilience: A Conceptual Framework

The concept of resilience has gained significant popularity across multiple disciplines. Although its definition has undergone various reformulations, it is broadly used to refer to the ability of systems or entities to deal with stress or disturbances. There are three distinct approaches to the concepts of resilience with differences mainly based on the origin of the strain inflicted on systems and the type of change sparked by the coping mechanisms it triggers (Davoudi, 2012; Nunes, Pinheiro, & Tomé, 2019; Xu & Kajikawa, 2018). The first two traditional perspectives, identified by Holling (1973, 1996) as engineering and ecological resilience, focus on the defensive responses to external disturbances and the return of affected systems to a stable state (Davoudi, Brooks, & Mehmood, 2013). The former considers a single, fixed equilibrium and centres in the ability of systems to return to it, while the latter introduces the idea of multiple equilibria

and proposes that systems may move between them to cope with disruption (Holling, 1996). The third perspective, evolutionary resilience, gets closer to the less predictable equilibria of social systems like criminal organizations. Instead of centering its assessments on equilibria, it acknowledges that change is constant, complex, dynamic, and non-linear, sparked by either external or internal forces that may affect an area of the system and, eventually, produce significant reconfigurations (Curtin & Parker, 2014; Davoudi, 2012; Guan et al., 2018). Systems are viewed as a series of interconnected subsystems, each exposed to separate adaptive cycles (Holling & Gunderson, 2002). The evolutionary perspective highlights the importance of human agency and its effects over the ability of organizations to withstand crises through the anticipation of potential threats and consequently preparing to navigate them (Davoudi, 2012; Davoudi et al., 2013).

This study uses a perspective on resilience that combines all three of these approaches into a single framework. Duchek (2020) recently proposed a capability-based organizational resilience framework that combines all three perspectives, conveying each as a separate type of resilience. The combination of engineering, ecological, and evolutionary resilience in a single framework facilitates the examination of the quality and effectiveness of active responses to threats, and the impact of accurately anticipating them (Duchek, 2020). The framework moves away from the defensive conceptualization of resilience and, instead, adopts a definition that emphasizes its offensive properties by describing it as “an organization’s ability to anticipate potential threats, to cope effectively with adverse events, and to adapt to changing conditions” (Duchek, 2020, p. 220). Duchek (2020) proposes three interdependent and overlapping resilience stages: anticipation, coping, and adaptation. These stages are associated with the forms of resilience observed by the evolutionary, engineering, and ecological perspectives, respectively. The framework identifies organizational capabilities linked to each resilience stage, thus conceptualizing resilience as a collection of capabilities or a meta-capability that allows organizations to foresee potential crises and, consequently, react and evolve (Duchek, 2020). Human agency is a central component of the framework. The cognitive and behavioural capabilities identified by Duchek (2020) in each stage portray resilience largely as a product of the reflection, deliberate decisions, and purposeful actions of individuals within organizations. She conveys internal and external communication, collaboration, and

coordination as crucial elements to acquire, share, and analyze information, expertise, and experiences to prepare, cope, and change in the face of crises (Duchek, 2020).

Duchek (2020) acknowledges that contextual factors influence the development of an organization's resilience capabilities. Despite the impact of social context, she argues that there are key antecedents and drivers that facilitate the development of resilience capabilities. For instance, Duchek (2020) maintains that having a broader knowledge base is vital for organizations to anticipate threats and identify potential solutions to crises. Similarly, she notes that resource availability, social resources, and the distribution of power and responsibility are central drivers behind the generation of resource redundancy, strong social connections, and robust and efficient organizational configurations (Duchek, 2020). Duchek's (2020) framework suggests that individuals inside and outside an organization, who have relevant and abundant experience, knowledge, or expertise, can help navigate or prepare for crises, but only if the configuration of the organization empowers and allows everyone to communicate and interact. The question, for the purposes this study, is to document such resilience mechanisms with network data, in the context of MS-13's collaborative arrangement with authorities and its subsequent termination.

4.3. Resilience in Illicit Organizations

The literature that examines resilience in illicit organizations is relatively recent. However, its conceptualization of the term excludes important aspects introduced by the more contemporary advancements on our understanding of the construct, especially considering Duchek's (2020) capabilities-based framework.

Bouchard (2007), for example, proposes a framework to examine resilience in illicit markets. Borrowing from ecological literature, he defined resilience as "the ability of market participants to preserve the existing levels of exchanges between buyers and sellers, despite external pressure aimed at disrupting the trade" (Bouchard, 2007, p. 329). This conceptualization concentrates on how disturbed systems bounce back to an original equilibrium, which is consistent with engineering resilience. However, it excludes shifts to new equilibria and evolution in the face of crises as forms of resilience. Bouchard's (2007) framework, nevertheless, breaks away from this constricted definition by recognizing that markets sometimes do not return to their initial functioning. He

clarifies that resilience should also include markets that bounce towards a relatively lower level of activity after disruption and adds market adaptation as the final resilience capability of his framework (Bouchard, 2007). However, Bouchard (2007) does not include internal sources of disruption in his definition and framework, nor does he explicitly consider the capacity to anticipate and prepare for crises as a form of resilience.

Ayling (2009) also proposes a framework to examine resilience in criminal organizations. Although the definition she adopts is less restrictive, it also overlooks important aspects of resilience. Based on ecological and organizational literature, Ayling (2009, p. 185) defines resilience as “the capacity to absorb and thus withstand disruption and the capacity to adapt, when necessary, to changes arising from that disruption.” This definition considers coping and adapting to stress as forms of resilience, which is consistent with the engineering and ecological perspectives. It also allows the inclusion of internal sources of disruption but, like Bouchard (2007), excludes the capacity to foresee and prepare for crises as a form of resilience.

There is a growing body of research that investigates resilience in illicit organizations by examining the structural features of their network architecture. Consistent with previous definitions, this work focuses on defensive qualities of resilience. Most studies examine the capacity of network configurations to withstand law enforcement-led disruption and a smaller set of investigations analyze how they recuperate from it (Bright, 2015; Duxbury & Haynie, 2018, 2019; Malm, Bichler, & Nash, 2011; Wood, 2017). Resilience is viewed in terms of the robustness of each network’s architecture to endure disturbances and its capability to recover from it. Therefore, the capability of networks to keep things moving in the face of crises is viewed as paramount. Researchers link the structural configuration of networks to market dynamics and law enforcement activity, which force participants to balance efficiency and security, as well as to internal elements such as trust among network actors and the importance of specific roles crucial for the functioning of the network (Bright, Koskinen, & Malm, 2019). Most studies, however, focus on predicting the robustness of illicit networks to disruption based on the effect of the efficiency/security trade-off over network structure (Duxbury & Haynie, 2019).

Network activities and interactions are shaped by participants decisions aimed at balancing detection avoidance (security) and market pay-offs maximization (efficiency) (Morselli et al., 2007; Morselli & Petit, 2007). The value that participants in each network assign to security and efficiency affects the way they decide to interact and, consequently, shape the patterns in their interactions. The competitive nature of illicit markets, for instance, serves as an incentive for people in profit-centred illicit networks to favour efficiency, while those in terrorist networks are motivated by ideological objectives and secrecy to make security their priority (Morselli & Petit, 2007). The perceived level of risk and contextual dynamics differ among different parts of the same network, affecting the configuration of interactions and collaborations (Malm et al., 2011; Morselli et al., 2007). Although the efficiency/security trade-off assumes that network participants make choices that adapt the configuration of the network to both internal and external conditions, the capability of criminal organizations to foresee and prepare for adversity has not been explicitly included in the conceptualization of resilience nor has it been the focus of empirical investigations. However, previous studies suggest that some illicit organizations are able to correctly anticipate and adequately prepare for crises or disruptions, both pre-emptively or as a consequence of an event. For example, Ouellet, Bouchard and Hart (2017) found that a terrorist network associated with Al-Qaeda anticipated that the post-9/11 period would cause an enhancement of surveillance and security, and prepared to deal with this forecasted scenario by changing its structural configuration.

4.4. Study Context: The MS-13 in El Salvador

Duchek's (2020) capability-based framework suggests that only the most developed and resilient organizations are capable of foreseeing and preparing for disruptions. Institutionalized street gangs that have transcended their rudimentary origins, like the super gangs found in North and Central America, are optimal to examine resilience in illicit organizations (Ayling, 2009). The MS-13 in El Salvador has been explicitly noted its resilience (Ayling, 2009, 2011; Sullivan, 2006). This institutionalized street gang was founded in the 1980s by Salvadorans who fled to Los Angeles, California to escape civil war (Cruz, 2010; Wolf, 2010, 2011). Most immigrated illegally and settled in cities with convoluted gang scenes, such as Los Angeles (Dudley, 2020). Since then, MS-13 in El Salvador has experienced an accelerated evolution.

Researchers have repeatedly noted its relatively high degree of criminal sophistication, robust local influence and control, flexible structural configuration, and capable leadership (Ayling, 2011; Farah, 2012a, 2012b; Farah & Babineau, 2017; International Crisis Group, 2017; Rosen & Cruz, 2019; Sullivan, 2006). The power of MS-13 resides in the tight grip it holds over marginalized communities across virtually every municipality in the country through extortion, which has attracted politicians, public officials, and businesses who have established corrupt partnerships with the gang (Insight Crime & Global Initiative Against Transnational Organized Crime, 2019; International Crisis Group, 2017; Rosen & Cruz, 2019).

Over the last few years, prosecutors in both El Salvador and the United States have filed indictments against MS-13's Salvadoran branches. Collectively, indictments describe an organization consistent with the architecture of institutionalized gangs depicted by Ayling (2009): a series of interconnected hubs, which facilitate the regeneration of structures in the face of attacks, ensure secrecy and the compartmentalization of information, and allow participative decision-making. Specifically, indictments portray MS-13 in El Salvador as a network of interconnected local and multijurisdictional organizational structures. At the ground level, prosecutors explain the gang is organized into clicas (or cliques) that claim ownership over one or a few adjacent neighbourhoods. Clicas are grouped into multijurisdictional structures called programas, which generally, with few exceptions, cover multiple contiguous municipalities. Corredores de clicas (or clique runners) run local operations and plan, coordinate, and order the commission of crimes perpetrated by lower ranking members. They report directly to corredores de programa (or program runners). Programas solve inter-clica conflicts, relay gang-wide instructions to clicas, deal with dissents, and manage clicas' weapons, money, and other resources. Corredores de programa report to ranflas, which constitute the next level in MS-13's organizational hierarchy. Ranflas, unlike clicas and programas, are council-like groups that have traditionally operated inside correctional facilities. Each penitentiary has its own ranfla. All ranflas are at the same hierarchical level except for the one housed in El Salvador's maximum-security prison in Zacatecoluca. This ranfla is identified by authorities as the most influential group in MS-13 and, therefore, it is said to constitute the gang's top command echelon. It is often referred to as la ranfla histórica (or the historic ranfla) in reference to the fact

that its members are all reputed, veteran MS-13 gang leaders that have held influential authority positions for a long time.

4.5. La Federación and the Resilience of the MS-13

In 2012, the *ranfla* histórica and leaders from the two competing factions of the rival Barrio 18 gang, Sureños and Revolucionarios, struck a secret deal with the Salvadoran Government, then led by president Mauricio Funes (Cruz, 2019; Cruz & Durán-Martínez, 2016; Dudley, 2020; Farah, 2012b; Farah & Babineau, 2017). This deal, and its potential consequences for the network structure of the MS-13 is at the heart of the current study. Interactions such as those that developed between authorities and street gangs differ from those found in focused deterrence strategies. In focused deterrence, street gangs are discouraged to engage in violence by effectively communicating that those that do will attract the attention of law enforcement (Braga, Weisburd, & Turchan, 2018). The deal struck by Salvadoran authorities, instead, is consistent with the *pax mafiosa* identified across Latin American countries. In this type of arrangements, public officials and politicians establish corrupt *quid pro quo* relationships with criminal organizations, tolerating and, in some cases, even profiting from their illicit activities (Rios, 2015; Tokatlian, 2007, 2011). As part of their understanding with Salvadoran authorities, gang leaders agreed to drive down homicide statistics and, in exchange, they were moved to less strict correctional facilities and given other benefits (Aguilar, 2019; Dudley, 2020). This arrangement became an important resource for the ruling political party in the 2014 presidential election, when Funes's vice-president, Salvador Sánchez Cerén, was elected president (Cruz, 2019; Cruz & Durán-Martínez, 2016; Dudley, 2020; Farah, 2012b; Farah & Babineau, 2017).

La *ranfla* histórica led a significant change in the gang's governance structure after consolidating its deal with authorities. The purpose of this reconfiguration was to facilitate the flow of information and prepare MS-13 for any disruptions aimed at crippling the influence of the gang's leadership and its command capabilities (Dudley, 2020). The *ranfla* histórica created a group called La Federación (or The Federation) at the same hierarchical level as the *ranflas* to have a loyal group operating outside prison walls that could speak on their behalf and ensure that day-to-day decisions were aligned with their interests (Dudley, 2020; InSight Crime & CLALS, 2018). La Federación, similar to *ranflas*, is organized into regional council-like groups outside the correctional system that

coordinate activities with ranflas in the central, paracentral, western, and eastern regions of El Salvador (Dudley, 2020; InSight Crime & CLALS, 2018). La Federación and ranflas are further organized into task-specific, combined groups: La Línea Principal, La Línea de Reportes, La Línea de Investigación, and La Línea Territorial (see Figure 4.1). La Línea Principal members decide on the most delicate matters outside prison walls (Dudley, 2020). There is another influential group in La Federación, according to indictments, whose authority is attributed to having had direct contact with la ranfla histórica, when they served as couriers relaying instructions to the outside (henceforward the direct contact group).

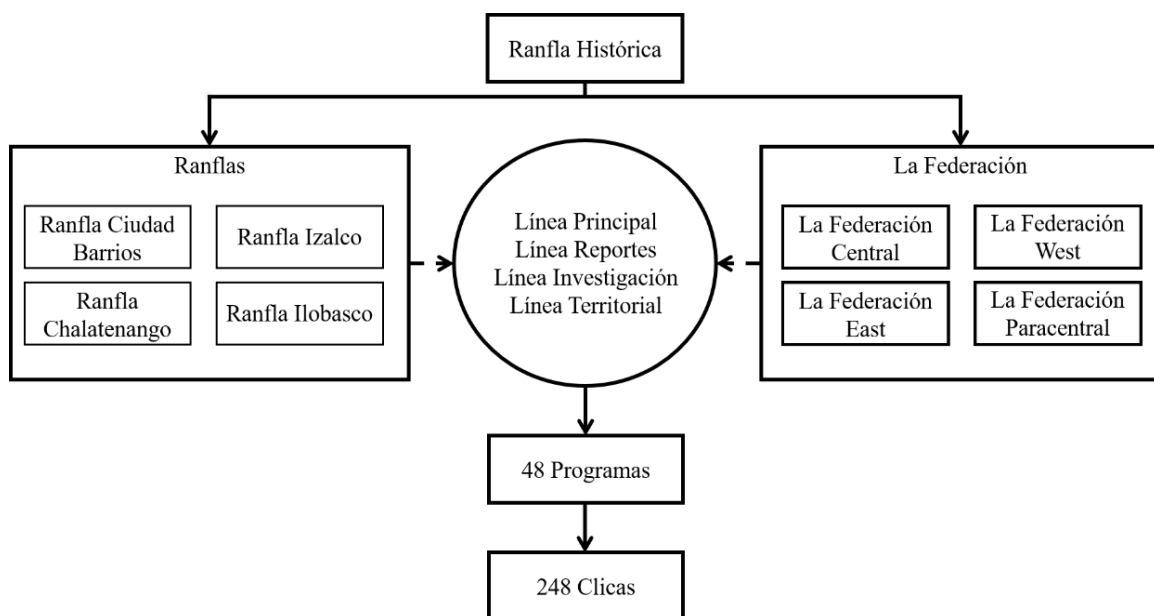


Figure 4.1 MS-13's Organization

Duchek's (2020) resilience framework suggests that structural changes such as La Federación, which arise as organizations anticipate and prepare for crises, are a form of resilience. They prepare organizations by providing a network architecture that better deals with adversities enhancing their ability to cope and adapt through resilience mechanisms, which include recovery protocols, adequate connections between different actors, and resources needed to endure disruptive episodes and introduce changes (Duchek, 2020). The impact of disruption varies depending on the targeting strategy used by authorities and the structural features exhibited by illicit organizations (Duxbury & Haynie, 2019). La Federación was intended to provide MS-13 with a network architecture capable of dealing with disruption aimed at its top command structure. The

impact of this type of disturbance has not been investigated in institutionalized street gangs such as MS-13. However, several researchers have studied it in Mexican drug trafficking organizations (MDTOs), which show similar network architectures. MDTOs are comprised by semiautonomous, densely connected groups that control plazas, led by jefes de plaza who deal with lieutenants who, in turn, are controlled by capos or kingpins (Atuesta & Pérez-Dávila, 2018; Beittel & Washington, 2012; Calderón, Robles, Díaz-Cayeros, & Magaloni, 2015). This configuration is similar to the network of semiautonomous chapters, cliques, and prison groups that have cohesive internal structures and connect among themselves through loose couplings in institutionalized street gangs (Ayling, 2009). Such structural arrangements create redundancy that allows gangs to quickly regenerate (Ayling, 2009). Studies that examine resilience in illicit networks note that redundancy contributes to the swift succession of those targeted during disruption efforts (Bright et al., 2017; Duijn, Kashirin, & Sloot, 2014; Duxbury & Haynie, 2019). In this type of organization, however, leaders play an important role bringing balance, stability, and cohesion between subgroups. They serve as brokers that mediate and coordinate different groups that function under their gang label. The literature on the resilience of illicit networks suggests that brokers are harder to replace and, therefore, law enforcement strategies that target them cause the greatest damage making succession harder (Bright et al., 2017; Duijn et al., 2014; Duxbury & Haynie, 2018; Malm & Bichler, 2011).

Disruption efforts aimed at completely isolating or otherwise removing leaders like the *ranfla histórica* in MS-13, have the potential to produce drastic changes in illicit organizations such as institutionalized street gangs and Mexican DTOs. For example, after the Almighty King and Queen Nation in New York tried to transform into a legitimate street group under the leadership of King Tone, his arrest in 1998 prompted the gang to pivot back to criminality and sparked an internal power struggle (Berardi & Bucerius, 2020). Similarly, the 2006 removal of two influential leaders in the Arellano Felix organization in Mexico, El Tigrillo and El Doctor, produced a serious fragmentation that resulted in internecine conflict between factions (Jones, 2013). Jones (2016) notes that DTOs are permanently exposed to disruptive events such as the arrest or murder of leaders and proposes a resilience typology that captures the severity of the impact this may cause. He maintains that the most resilient groups survive intact, while others either

adapt and restructure, fragment, engage in internecine conflict, or dissolve (Jones, 2016).

The damage caused by removing leaders in these groups, however, can be mitigated by having a resilience mechanism in place. Research that examines resilience in illicit networks notes that replacements must be both capable and trustworthy to successfully take over the role left behind by targeted individuals (Bright et al., 2017; Duijn et al., 2014). The sudden absence of leaders may cause fragmentation if it forces a succession without a predefined or agreed upon capable replacement. The incarceration of MDTO leaders, for example, creates less incentives for others to fight over control, as imprisoned leaders can still control operations from inside the correctional system (Calderón et al., 2015). Similarly, having a defined hierarchy line prevents internal conflict after leaders are removed by providing a clear succession chain if the next in line is deemed a capable replacement by the rest (Jones, 2013).

4.6. Aim of Study 3

The study aims to uncover the nature of the resilience mechanisms devised and put in place by institutionalized gangs in anticipation of crises in the context of secret deal with the state. Although Ayling (2009) suggests that resilience in these illicit organizations rests largely on its network architecture, few studies have been able to follow the evolution of an organization's network configuration as its members purposefully create resilience mechanisms in planning for future disturbances. This study examines the social organization of MS-13 and its resilience mechanisms in El Salvador, both under normal circumstances and as the gang deals with and adapts to a disruptive event associated with the termination of its secret cooperation with state agents and the ruling political party. The current investigation employs a mixed-methods sequential approach (Clark & Ivankova, 2016). First, the study analyzes transcripts from focus group interviews with Salvadoran prosecutors to identify MS-13's resilience mechanisms. This part of the analysis concentrates on uncovering resilience mechanisms that complement La Federación, which was intended to help the top command structure. The analysis then takes a network approach to recreate and analyze MS-13's organization using wiretap call logs from two separate criminal investigations led by the Attorney General's Office in El Salvador. The information from operations "Bosques" and "Jaque" is used to reconstruct the social organization of a

clica and MS-13's top command structure, respectively. Using various network metrics and algorithms, the study documents the functioning of resilience mechanisms under normal conditions at both hierarchical levels. Operation "Jaque" coincides with a significant disruption aimed at crippling the gang's top command capabilities. Consequently, the analysis was expanded to examine resilience mechanisms at work and changes in network structure as MS-13's top command structure dealt with the disturbance through the estimation of a separable temporal exponential random graph model.

4.7. Data

Salvadoran authorities seldom provide access to the type of data on MS-13 examined in this study. The analysis includes focus group interviews with Salvadoran officials directly involved in the investigation and prosecution of street gangs in El Salvador and call logs from wiretaps authorized in judicialized criminal investigations.

4.7.1. Focus Groups

This study analyzed anonymized transcripts from 6 focus groups interviews with Salvadoran prosecutors, conducted in the context of a larger research project on extortion. All participants had extensive experience in investigating and prosecuting gang extortion cases. They were recruited internally at the request of the deputy head of the special organized crime and extortion unit at the Attorney General's Office in El Salvador. Interviews were conducted in July 2019 at a training facility for prosecutors. Each focus group had between six and seven participants and lasted approximately ninety minutes. The location allowed to control access, enhance privacy, assure confidentiality, and, consequently, encourage candid discussions. Researchers did not record the participants' personal information to safeguard their identity and motivate frank exchanges. The composition of focus groups mirrored the distribution of extortion prosecutors across El Salvador, through a proportional representation of regional detachments and specialized units in each session.

At the beginning of each focus group interview, the moderator explained to participants that they had been invited to provide insight regarding extortion in El Salvador, based on their expertise in the investigation and prosecution of extortion

cases, in the context of a research project aimed at informing the design of a Criminal Prosecution Policy for Extortion. Discussions were semi-directed and included various open-ended questions aimed at exploring the difficulties encountered in the investigation and prosecution of gang extortion. Interviews covered topics related to the drivers and enablers of extortion, challenges faced in the investigation and prosecution of the offence, and the resilience of gang extortion. Participants were asked to frame their answers by considering relevant information associated with gangs, the neighbourhoods they control, and the criminal justice system. This study focuses on the question associated with resilience:

In your experience, what factors allow systemic extortions to continue after perpetrators are arrested?

This portion of the analysis was aimed at identifying resilience mechanisms at different organizational levels of MS-13 to inform the examination of its network architecture. Interviews did not contain any prompts that directed the conversation towards any of the features previous literature associates with organizational resilience in general or with resilience in illicit organizations specifically. Discussions touched on several issues, some of them often exclusively related with shortcomings found in the Salvadoran criminal justice system. However, the analysis of transcripts concentrated solely on strategies implemented by gangs in El Salvador to increase their capabilities to anticipate and deal with disturbances. Specifically, it sought to distinguish themes concerning structures, systems, and procedures devised and in place in anticipation of potential problems and threats. Content associated with this sort of resilience mechanisms was coded and grouped into distinct themes that captured their nature and function under the gang's normal working conditions and under duress. The results provided important information about how MS-13 prepares to quickly regenerate after an attack and enhances the communication and coordination across and within its organization. Particularly, the analysis emphasized the importance of considering gang status and organizational designations in the examination of MS-13's network architecture. This insight was used to code and analyze individual features in the analysis of wiretap data.

4.7.2. Wiretap Data

Wiretap data is frequently used to recreate and analyze the organization of illicit networks to produce insight about its structural features (e.g. Bright & Delaney, 2013; Calderoni & Superchi, 2019; Campana & Varese, 2012; Morselli, 2009; Morselli et al., 2007; Natarajan, 2006). This study used call logs generated through the interception of the telecommunications of MS-13 gang members in the context of two criminal investigations judicialized between 2015 and 2016 by the Office of the Attorney General of El Salvador.

The first investigation, designated by authorities as operation “Bosques,” was carried out in 2015. It was aimed at gathering evidence concerning an extortion racket ran by a *clica*. Wiretap call logs produced in this investigation are used here to recreate the social organization of an MS-13 *clica*. During the investigation, prosecutors intercepted the communications of 21 individuals involved in the extortion racket coordinated by an MS-13 *clica* in the department of La Libertad during approximately 5 months.

The second criminal investigation, operation “Jaque,” was conducted between 2015 and 2016. During approximately 10 months, prosecutors intercepted the communications of 28 people linked to La Federación and the *ranflas*. The investigation coincided with an event aimed at disrupting MS-13’s top command structure. During the first quarter of 2016, El Salvador’s congress approved a transitory law that allowed authorities to use harsher correctional protocols after their deal with street gangs progressively deteriorated and ultimately ended. The law, commonly referred to as “exceptional measures” in reference to the tougher methods it sanctioned, allowed authorities to completely isolate gang members indefinitely. The *ranfla* histórica and other key incarcerated gang members were secluded in solitary confinement, making it more difficult to communicate with the outside. This is the sort of crisis that MS-13’s leadership anticipated when they created La Federación. This study uses wiretap call logs to recreate the social organization of the gang’s top command structure under normal conditions and as it reacted to the isolation of gang leaders.

Not all interactions recorded in wiretap data sets are associated with crime-related activities (Campana & Varese, 2012). The telephone numbers that interacted

with less than two other numbers were removed from the call logs. Since there was no information about who the users of these numbers were, it was determined that including them could add people who did not participate in the organization or operation of illicit activities and, therefore, could distort the network. The call logs from operation “Bosques” and “Jaque” were trimmed accordingly and used to build unweighted directed networks. The network recreated with operation “Bosques” was used to examine resilience mechanisms in the social organization of a *clica*. Since operation “Jaque” coincided with the implementation of the exceptional measures, this study analyzed resilience mechanisms in MS-13’s top command structure under normal conditions, before the transitory bill was enacted, and as it adapted to the disturbance, after the law was passed. The call logs corresponding to the beginning and end of operation “Jaque” were dropped due to procedural issues at the beginning and end of the investigation. Call logs were collapsed into two-month intervals to produce four unweighted directed network cross-sections of MS-13’s top command structure labelled T1, T2, T3, and T4 (see Table 4.1). Cross-sections covered two-month periods to avoid noise caused by events unassociated with gang or law enforcement activity, such as the temporal absence of important members due to illness. The exceptional measures were implemented in T3. Consequently, T1 and T2 show resilience mechanisms under normal conditions and T3 and T4 while the gang deals and adapts to disruption.

4.8. Methods to Operationalize Resilience Mechanisms

The study examines resilience mechanisms in MS-13 under normal working conditions and as the gang endures and adapts to a disturbance associated with the termination of its negotiations with state agents.

4.8.1. Resilience Mechanisms Under Normal Circumstances

Resilience is first and foremost about anticipation. Duchek (2020) suggests that the fluid interaction, communication, and coordination between the different parts and hierarchical levels of organizations allows them to develop this capability, because people with different responsibilities, expertise, and information can collectively identify, deliberate on, and comprehend future crises and develop and implement adequate responses. In the context of institutionalised gangs, fluid communications among

chapters or cliques increases their knowledge base as they can learn from each other's experiences and exchange useful information (Ayling, 2009). Duchek (2020) emphasizes that empowering lower-ranking members in an organization and adopting a participative approach to decision making, enhances its resilience capabilities by opening communication channels that provide crucial input to those higher in the hierarchy. In illicit organizations, the interaction between people at different hierarchical levels additionally defines clear succession lines, which mitigates the effects of disturbances caused by the arrest or death of key members (Calderón et al., 2015; Jones, 2013). The findings generated through the analysis of focus group interviews is consistent with this, which highlights the relevance of considering status within the gang and organizational designations. This information was used to identify the presence of resilience mechanisms in MS-13 that allow the communication between people who belong to different factions and hierarchical levels, using the operation "Bosques" network and the T1 and T2 cross-sections of the operation "Jaque" network.

Since each case focuses on a different part of MS-13's organizational structure, they provide a partial view of the gang's social organization. It was anticipated that the overlap and layout of resilience mechanisms may be different in the network generated from operation "Bosques" than in those from operation "Jaque." For instance, the communication between local actors who belong to different hierarchical levels may be central due to the coordination of activities in a *clica*. *Corredores de clica* may rely on and, therefore, have a higher communication with their lieutenants and them with lower-ranking members. *Corredores de programa* may not be as central, but exhibit a strong interaction with *corredores de clica*, serving as brokers that connect their group to the rest of the gang. The current analysis used two distinct approaches to capture and examine these scenarios.

The analysis aimed at capturing the central mechanism for each organizational level used the keyplayer package for R (An & Liu, 2016) to identify the actors whose extraction would splinter each network the most. The estimations in this package are based on the algorithm proposed by Borgatti (2006), which iteratively searches for the actors that maximize fragmentation. This analysis was performed for the operation "Bosques" network and for each cross-section of the operation "Jaque" network separately. The next step was to determine if the individuals identified by the keyplayer algorithm facilitated the exchange of information across MS-13's hierarchical levels and

factions. Each person's gang designation was used to ascertain whether the people who were selected belonged to various hierarchical levels and factions within MS-13.

The second approach in the analysis focused on identifying peripheral resilience mechanisms. The study applied a meso level methodology to identify the subgroups (or communities) that emerged from the structural configuration of each network's interaction pattern using the Louvain algorithm (Blondel, Guillaume, Lambiotte, & Lefebvre, 2008) available in the igraph package for R (Csardi & Nepusz, 2006). The algorithm clusters actors into groups based on their interaction until doing so does not improve the modularity score, which measures the extent to which the structure of a network is arranged around subgroups or communities. As recommended by the scholar who developed the measure, a threshold of 0.30 was used to distinguish network structures organized around communities (Newman & Girvan, 2004). The analysis then determined whether the individuals identified by the keyplayer algorithm who held specific hierarchical positions, for instance, served as brokers connecting different factions. When examining a local clica network, for example, the local corredor de clica may be identified by the keyplayer algorithm because of the high level of activity the position implies. However, a ranflero or a person that belongs to another clica, who kept a strong communication with the local corredor de clica, may not be actively involved in the local clica's activities and, therefore, might not be selected by the algorithm. In this scenario, the local corredor de clica facilitates communication with the larger network in which his group is embedded. Close interactions such as the one described above, would designate the local corredor clica and the ranflero as members of the same subgroup or community.

This type of dynamic makes the interaction between network communities crucial for resilience mechanisms to facilitate communication and coordination across the gang. The study used the Krackhardt and Stern's (1988) E-I index to measure each individual's intergroup interactions, defined as:

$$E - I \text{ Index} = \frac{E - I}{E + I}$$

Where E is the number of connections the actor has to people who belong to another subgroup and I is the number of connections to individuals in the same subgroup. Larger values indicate that the proportion of connections to other subgroups is

higher, while smaller values suggest that the proportion of connections with others in the same subgroup is higher.

4.8.2. Network Measures and Models to Document Resilience Mechanisms

The analysis examines changes in the network configuration of MS-13's top command structure across the cross-sections of the operation "Jaque" network, as the resilience mechanism led by La Federación helped the gang cope and adapt to the implementation of the exceptional measures. Since La Federación was intended to deal with the absence of the *ranfla* histórica, its success is based on its effectiveness to keep the network from fragmenting. This study investigated whether this was achieved by shifting to a "retrenchment" phase to adapt to the disturbance, in which unnecessary and risky contacts were trimmed from the network and only strong and trusted ties were kept (Airola and Bouchard, 2020; Paoli, 2008). The analysis further examines whether changes in the size of La Federación's network provided the means to securely communicate and coordinate across different groups within MS-13, minimize compartmentalization, and increase the capacity of participants to reach each other.

The study determines if there are any notable changes in the individuals identified by the keyplayer algorithm in T3 and T4, and the role they played in facilitating communication and coordination across hierarchical and organizational levels. Additionally, the analysis employs various descriptive metrics to analyze changes across the cross-sections of the operation "Jaque" network. Changes in size and dispersion were measured through number of people (nodes) in each network, and diameter and average distance, which measure the longest path between connected actors and the average number of people (or steps) between any two connected actors, respectively. Decreases suggest a smaller, more compact network. Cohesiveness was measured through density and transitivity, which measure the percentage of individuals in the network that share a tie and the percentage of observed triads that form complete triangles. Higher values indicate a higher degree of clustering in interactions, which is consistent with a higher level of trust. The analysis also measures fragmentation across cross-sections, which estimates the percentage of network actors that cannot reach each other.

In order to assess the drivers of changes in network structure, the `statnet` package for R (Hunter, Handcock, Butts, Goodreau, & Morris, 2008) was used to estimate separable temporal exponential random graph models (STERGM). Krivitsky and Handcock (2014) proposed STERGMs as an extension of exponential random graph models (ERGM) to analyze separately the formation and persistence of ties across observations at discrete time points. This modelling technique allowed the study to assess the reaction MS-13's top governance structure to the implementation of the exceptional measures more systematically, identifying the statistical significance of changes in its network architecture and the nature of ties that tended to persist or dissolve.

ERGMs provide a framework to examine complex dependencies in relational datasets (Handcock, Hunter, Butts, Goodreau, & Morris, 2008). The models identify and describe the forces that shape network structure configurations (Hunter et al., 2008). The interaction pattern is viewed as one of many possible link configurations produced by a particular (and unknown) random process (Robins & Lusher, 2013; Robins & Morris, 2007; Wasserman & Robins, 2005). ERGMs incorporate structural and node characteristics as explanatory variables, assumed to contribute to either increase or decrease the probabilities of links materializing between actors (Robins & Lusher, 2013). Models are defined by the following formula (Robins & Morris, 2007):

$$\Pr(Y = y) = \left(\frac{1}{K}\right) \exp\left\{\sum_A \eta_A g_A(y)\right\}$$

Where the probability of observing graph y in the distribution of graphs on n nodes, is given by the summation of all configurations A , with their corresponding parameters η_A and network statistic $g_A(y)$. When configurations A are observed in graph y , $g_A(y) = 1$. A proper probability distribution is assured through the normalizing term K . The model estimates parameters to assess the influence of local structural processes and actor attributes over tie formation (Robins & Lusher, 2013). STERGMs assess the impact of structural and individual features in time t over the formation and persistence of ties in time $t+1$ by estimating two separate ERGMs, one for the emergence of ties and, the other, for their persistence and dissolution. The ERGM estimated for the link formation is defined by the following formula:

$$\Pr(Y^+ = y^+ | Y^t) = \left(\frac{1}{K^+}\right) \exp\left\{\sum_A (\eta_A^+)^t g_A(y^+)\right\}$$

Where the tie formation network Y^+ is estimated conditional on the creation of new ties, given the formation parameters η_A^+ . The ERGM for link persistence and dissolution is estimated as:

$$\Pr(Y^- = y^- | Y^t) = \left(\frac{1}{K^-}\right) \exp\left\{\sum_A (\eta_A^-)^t g_A(y^-)\right\}$$

Where the tie dissolution network Y^- is estimated conditional on the creation of new ties, given the dissolution parameters η_A^- . Changes across multiple cross-sections are analyzed by calculating a STERGM at each step and generating overall fit statistics and coefficients for tie formation and persistence separately. Like in logistic regression, coefficients are interpreted as log odds and, thus, can be exponentiated to assess the impact of each parameter over the formation and persistence of ties. Positive and statistically significant coefficients in the tie formation model indicate that the effect increases the probability of a tie to emerge, while negative coefficients signify that it decreases. Similarly, in the tie persistence model, positive coefficients suggest that the effect increases the probability of a tie to persist and negative coefficients indicate the opposite.

The current analysis concentrates on modelling the persistence and dissolution of ties and not their formation. It investigates whether changes in MS-13 top command structure are consistent with a retrenchment phase, in which it would become more selective, leaving only individuals who trusted each other and contributed to strategic intergroup coordination and communication. The model in this study includes parameters to assess the impact of both endogenous and exogeneous effects consistent with these expectations. It includes a term (edges) to measure the probability of ties persisting between any two individuals in the network. Additionally, the model measures the propensity of in-coming and out-going ties to dissolve through geometrically weighted in-degree (GWIDEG) and out-degree (GWODEG) parameters⁵. The persistence of ties among people who trusted each other and allowed for an increased coordination was measured through three structural parameters: reciprocity, directed

⁵ The decay parameter of each geometrically weighted term was set to increase model fit.

geometrically weighted edged shared partners (DGWESP) and directed geometrically weighted dyad shared partners (DGWDSP). The reciprocity parameter measures the propensity of reciprocated ties to persist. Connections that involve a bi-directional exchange suggest a high degree of coordination, so it was that expected reciprocal ties would tend to remain. The DGWESP and DGWDSP parameters measure the tendency of redundant and brokerage configurations to persist, respectively. It was expected that ties between individuals that contacted the same person and also communicated between themselves would persist, as this type of redundancy denotes trust between connected parties. Conversely, ties between individuals linked through a third person, which are more consistent with compartmentalization, were expected to show a propensity to dissolve.

The model includes two parameters to measure exogenous effects. It investigates whether the probability of ties to remain would be associated with their potential to increase intergroup coordination. The E-I index was used to assess how much individuals contributed to intergroup interactions. The model includes a term that measures the probability of ties to remain based on the sum of the E-I indexes of the connected parties. It was anticipated that higher values would increase the probability of ties to persist. Since La Federación was expected to play a central role in allowing intergroup communication, it was expected that ties between people who belonged to it would have a higher chance to persist. Consequently, the model includes a term to measure the effect of connected parties belonging to La Federación. The model uses this parameter to assess whether connections between members showed a propensity to persist.

4.9. Results

During focus group discussions, prosecutors attributed the resilience of gang extortion to the celerity with which perpetrators are replaced after they are arrested or otherwise neutralized. Participants emphasized the capacity of gangs, particularly MS-13, to anticipate and prepare for such events. A prosecutor said: “ou cut off its head and the successor within the organization is already established.” Conversations about MS-13’s ability to predefine, implement, and uphold succession chains revolved around two themes: (1) the gang’s internal organization; (2) its support network.

Prosecutors provided numerous examples of extortion rackets led by MS-13 to illustrate how the gang seems immune to the effects of the arrest of the individuals involved. Accounts commonly referenced the fact that clicas are embedded in a larger network that connects them to the rest of the gang. Discussions about this arrangement suggested that the hierarchical structure shaped by the network of programas, ranflas, and La Federación, as well as the participatory nature of MS-13's top governance structure, allowed clicas to act collectively, define common objectives, and formulate and execute plans. Examples offered by participants invariably indicated that through this organizational structure, succession plans are devised, approved, and activated when gang members or even whole clicas are arrested, killed, or incapacitated. One participant explained that "corredores de programa know how extortion rackets are distributed and have a successor." Prosecutors frequently mentioned during interviews that gang members know who will take over any given position if the person that occupies it is arrested or killed, and that these succession chains are respected and upheld.

MS-13's support network of unaffiliated individuals was a recurring topic during the discussion about the gang's succession chains. Prosecutors associated these networks to gang extortion, which they conveyed as a normal feature of everyday life in gang-controlled neighbourhoods. Interview participants repeatedly mentioned that money and influence generated through extortion made collaborating with gangs an attractive alternative to legal employment for neighbourhood residents. In his explanation about this network, a prosecutor argued that "people are waiting in line to enter the gang. They are waiting their opportunity to become part of the gang." During interviews, MS-13's support network was depicted as a vast pool of actual and aspiring paid collaborators, comprised by gang relatives and other individuals, eager to: (1) inform about law enforcement activity and report residents who brake gang rules; (2) take on tasks that involve a high probability of arrest in gang illicit activities (3) look after gang interests in the absence of gang members. Prosecutors consistently explained that the arrest of gang members activates their wide network of collaborators and family members who are usually left out in law enforcement investigations. Once gang members are held in custody, these individuals serve as their proxies and act on their behalf, collecting payments and making sure criminal activities keep moving forward uninterrupted.

4.9.1. Resilience Mechanisms Under Normal Circumstances

Focus group interviews suggested that MS-13's multilevel organization, comprised by its network of clicas, programas, ranflas, La Federacion, and unaffiliated collaborators, is a resilience mechanism that allows different groups to identify and study problems, formulate solutions, and act collectively. These results also indicated that predefined succession chains across hierarchical levels allow MS-13 to quickly repair any damage caused by the arrests or deaths of its members. These results informed the rest of the analyses. They suggested that people who occupied formal designations within MS-13's organization and others lower in the pecking order, who had potential to move up the hierarchy, would play a key role in the coordination and communication and, therefore, contribute to the gang's resilience. Indeed, if replacements had limited previous experience and involvement in day-to-day activities, the transitions would be more challenging and potentially hinder the organization's resilience. Conversely, lower-ranking individuals who are heavily involved in gang activities and thus, who already have a good standing in the network, would make better candidates to move up. Consequently, it was expected that potential replacements were active and occupied central network positions under normal functioning conditions.

The analysis investigated this expectation by examining the operation "Bosques" network and the two first cross-sections of the operation "Jaque" network, T1 and T2, under the assumption that they reflect MS-13's structural configuration in a clica and its top command structure, respectively, during relatively normal circumstances. The keyplayer algorithm was used to identify the people whose removal would fragment the network the most. Those selected by algorithm in the operation "Bosques" network and the T1 and T2 cross-sections of the operation "Jaque" network occupied positions across MS-13's formal organization (see Figure 4.2 and 4.3). The individuals identified by the algorithm in the operation "Bosques" network include a corredor de clica (pi01), a homeboy (pi07), two probationary gang members (pi13 and pi16), and a gang collaborator (pi11) labelled with their corresponding codes in Figure 4.2 and 4.3. The collection of positions held by people selected by the algorithm provides suitable candidates for a replacement chain, instead of identifying individuals at a particular hierarchical level. The arrest or death of any of people selected by the algorithm could be solved by the next lower-ranking person in that group moving up. The homeboy

(pi07) coded purple in Figure 4.2, for instance, can substitute the corredor de clics (pi01) coded pink, who is only a few steps away in the network and, therefore, share some of their contacts. Similarly, the probationary gang members (pi13 and pi16), coded orange and green, respectively, are close to homeboy (pi07) and may succeed him if needed. Their place can be taken by the gang collaborator (pi11) coded in orange, who also shares connections with them. These substitutions do not need to be permanent. Replacements can take over while other individuals are designated to formal posts.

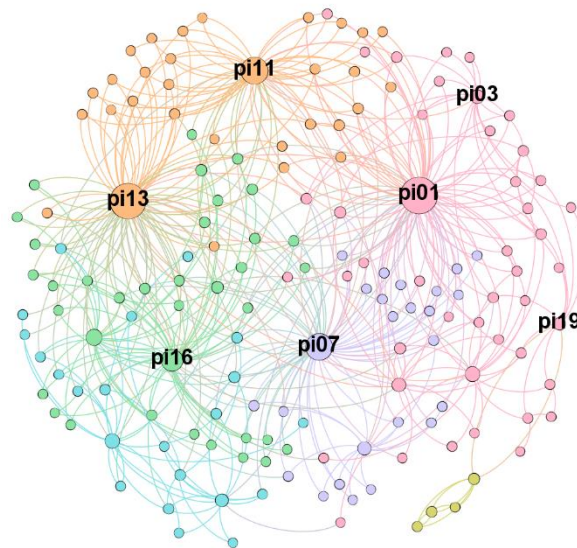


Figure 4.2 Operation “Bosques” network

Note. Node colours are used to distinguish subgroups uncovered by the community detection algorithm. The size of each node is proportional to its degree centrality, which measures the number of ties connected to it. Individuals selected by the keyplayer algorithm and other people of interest are identified with their id code.

Cross-sections T1 and T2 in Figure 4.3, which show the top command structure under normal conditions, produced similar results. The individuals selected by the keyplayer algorithm are labelled with their code in the corresponding graphs. Most belonged to direct contact group (pi006, pi003, pi004, pi020, pi011, pi019), another to La Linea Principal (pi010), and the remaining one was just a homeboy (pi014). Interestingly, the person that belonged to the La Linea Principal (pi010) and the homeboy (pi014) are the only two that were selected by the algorithm in both T1 and T2. Furthermore, both were designated to the same subgroup by the community detection algorithm and, therefore, coded light blue, which suggests that the exchange of information between them was frequent and uncomplicated. Communication channels that empower lower-ranking members such as p014, give decision-makers access to crucial information,

creates cohesion, and facilitate the identification and implementation of solutions to problems, which can enhance the organization’s resilience (Duchek, 2020)

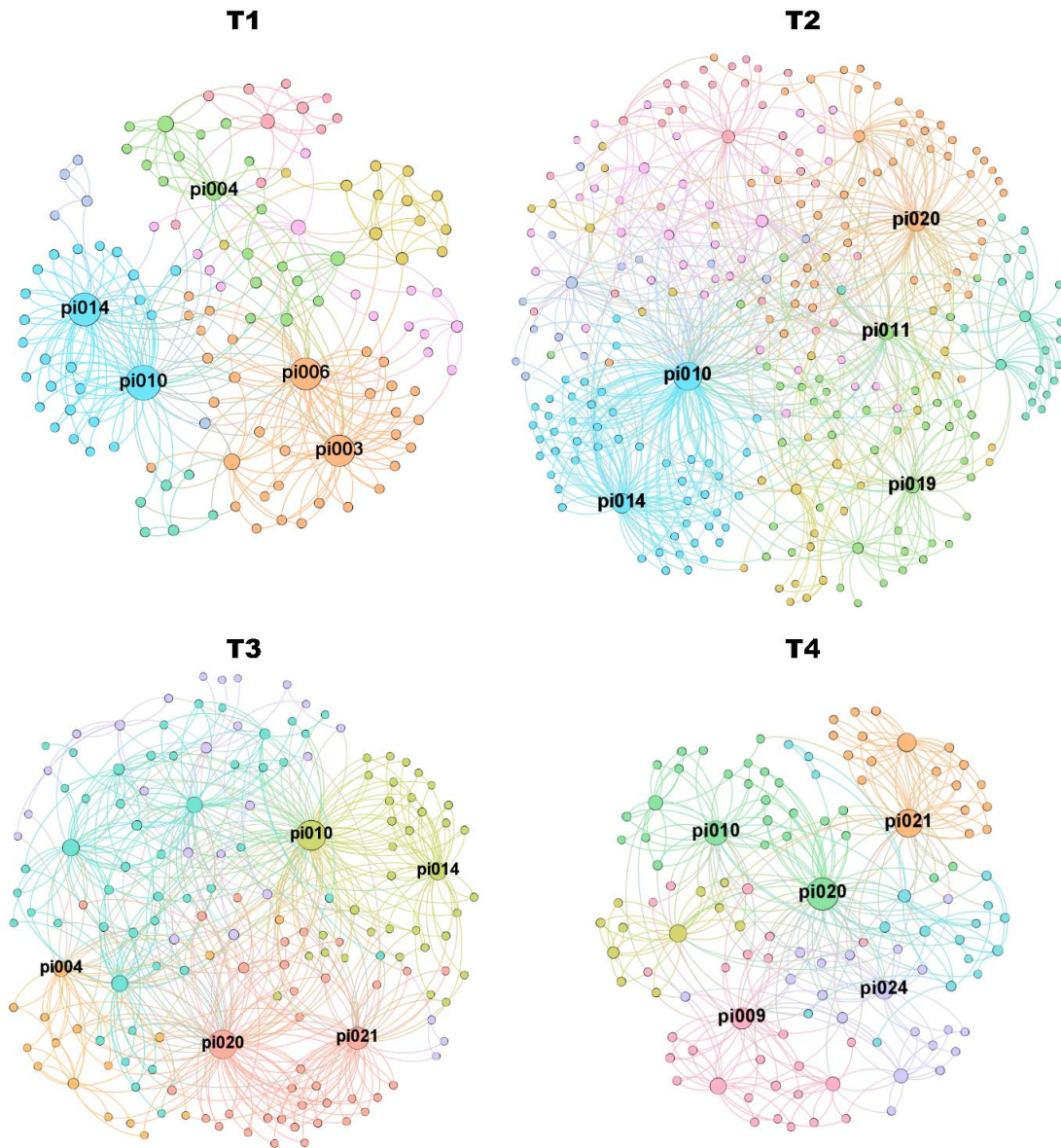


Figure 4.3 Cross-sections of Operation “Jaque” e twork

Note. Node colours are used to distinguish subgroups uncovered by the community detection algorithm. The size of each node is proportional to its degree centrality, which measures the number of ties connected to it. Individuals selected by the keyplayer algorithm are identified with their id code.

Figures 4.2 and 4.3 show that those who were selected by the keyplayer algorithm are distributed across different subgroups identified by the community detection algorithm, each coded with distinct colours in the graphs. The results suggest

that people who participated in resilience mechanisms were central in bringing together different groups in the gang. The analysis used the E-I index to measure the extent to which each person interacted with people who belonged to other subgroups identified by the community detection algorithm. Most of those selected by the keyplayer analysis in the operation “Bosques” network shown in Figure 4.2, presented positive scores, indicating that their interactions were predominantly with people outside their subgroup (see Figure 4.4). Interestingly, Figure 4.4 shows that those who were lower in the gang’s hierarchy, a homeboy (pi07) and a probationary gang member (pi13), reported higher E-I indexes, almost double that of the corredor de clicca (pi01). This further suggests that lower-ranking members were able to communicate and provide input across different groups within their clicca. Another important result is that corredor de progama (pi19) and a corredor de clicca from another jurisdiction (pi03) belonged to the same subgroup as the local corredor de clicca (pi01). Both pi19 and pi03 were not selected by the keyplayer algorithm and, consequently, were not labelled in Figure 4.3. Both reported negative E-I indexes, -0.80 and -0.88, respectively, which indicates that their interaction with the local network was limited and the corredor de clicca (pi01) served as the connection between his faction and the rest of the gang.

Results differed for MS-13’s top command network. The E-I index was negative for most people selected by the keyplayer algorithm in cross-section T1 and T2. Figure 4.4 shows that all of those identified by the algorithm in T1 reported negative indexes and, in T2, three out of the five. The highest E-I index scores are associated with members of the direct contact group and La Linea Principal. This suggests that, compared to others, they played a more important role in the coordination and communication between subgroups. The prevalence of negative E-I values is consistent with the type of architecture described by Ayling (2009) for institutionalized gangs, which consists of dense hubs connected to each other through weak links. Most of the activity, consequently, takes place within hubs.

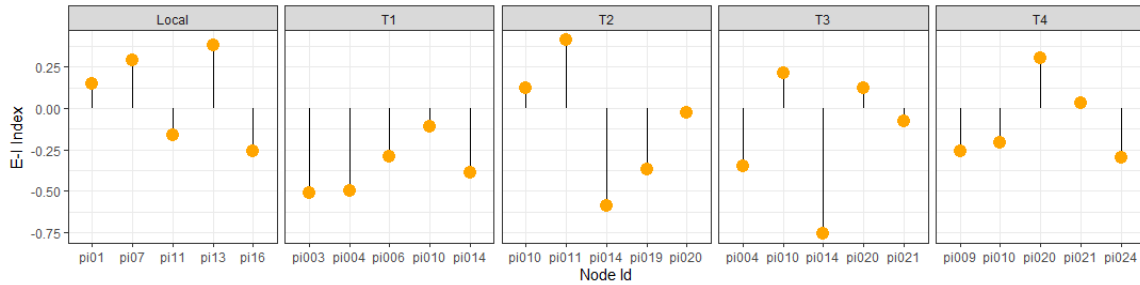


Figure 4.4 E-I Index for Individuals Identified by the keyplayer Algorithm in Each Network

4.9.2. Resilience Mechanisms and Exceptional Measures

The T1 and T2 cross-sections of the operation “Jaque” network shown above allowed this study to examine the configuration of MS-13’s top command structure under relatively normal working conditions. Expanding the analysis to T3 and T4 provided an opportunity to investigate how it reacted to the disruption caused by the implementation of the exceptional measures.

The results of the analysis suggest that MS-13’s top command structure successfully shifted to a retrenchment phase to deal with the enactment of the new laws. Table 4.1 shows that the operation “Jaque” network expanded notably between T1 and T2, before the law was approved and implemented, increasing the number of connected people from 128 to 278. When the exceptional measures were passed in T3, the network started to contract and kept doing so in T4, returning to a size similar to that of T1 shrinking to 121 individuals. The diameter and average distance decreased from 9 to 7 and 3.57 to 3.16, respectively, between T1 and T4, which suggests the network, although virtually the same size, became more compact. Density and transitivity, conversely, increased moderately between the first and last cross-sections from 2.2% to 2.6% and 8.1% to 9.8%, correspondingly. This suggests that communication patterns became relatively more clustered, which in turn indicates that there was a moderately higher level of trust. Results also show that the isolation of imprisoned leaders did not result in the disintegration of the gang’s top command structure and, therefore, indicate that resilience mechanisms successfully helped it navigate and adapt to disruption. Fragmentation, which measures the percentage of individuals in the network that cannot reach other, decreased from 40.9% in T1 to 28.4% in T4. The network became more cohesive.

Table 4.1 Network Size and Cohesion

Variables	Local Network	Top Command Network			
		T1	T2	T3	T4
Size					
Nodes	163	128	278	161	121
Edges	496	273	674	415	271
Diameter	8	9	7	6	7
Average distance	2.89	3.57	3.08	2.65	3.16
Cohesion					
Density	1.8%	2.2%	1.0%	2.3%	2.6%
Fragmentation	40.1%	40.9%	43.0%	31.0%	28.4%
Transitivity	6.5%	8.1%	4.2%	7.9%	9.8%

The estimated STERGM is consistent with these findings and provides further information about the types of connections that persisted and those that dissolved as the network moved to the retrenchment phase. The model allowed this analysis to isolate the impact of individual and structural elements the configuration of MS-13's top command network from T1 through T4. The results are provided in Table 4.2. The edge parameter yielded a negative and statistically significant coefficient, which indicates that there was an overall tendency for ties to dissolve across the network cross-sections. Similarly, the model produced negative and statistically significant coefficients for GWIDEG ($b = -1.720$, $p < 0.001$) and GWODEG ($b = -1.643$, $p < 0.001$), which indicates that both incoming and outgoing ties had a propensity to dissolve as time passed. Over time, there was a general tendency for people to become more selective and reduce the number of individuals with whom they interacted.

The results indicate that tie configurations that denoted a higher level of trust between connected individuals tended to persist. The DGWESP parameter resulted in a statistically significant and positive coefficient ($b = 0.495$, $p < 0.001$), which suggests that there was a tendency for interactions among trusted individuals to endure across cross-sections. Therefore, tie configurations such as those found between, for instance, members of La Federación and their closest collaborators, tended to persist as the network coped and adapted to disruption. Conversely, the negative and significant coefficient for the DGWDSP parameter ($b = -0.041$, $p < 0.01$) suggests that tie

configurations that connected individuals indirectly, had a propensity to dissolve. This provides further evidence that indicates that as the MS-13 top command structure dealt with the exceptional measures, individuals opted to keep interactions with people they trusted and cease those that implied a higher level of risk.

The estimated model also indicates that ties which contributed to increase communication and coordination within the network tended to persist. The parameter for reciprocal connections, which suggests a relatively elevated exchange between parties, was positive and statistically significant ($b = 1.806$, $p < 0.001$). This indicates that ties between individuals who communicated back and forth were less likely to dissolve. Similarly, ties had a higher chance to persist if they involved individuals that linked different subgroups in the network. Intergroup communication was measured through the E-I index. The subgroups identified by the community detection algorithm were used to calculate the index for each person in the network. The model shows that connections between individuals with higher E-I scores had a higher propensity to persist ($b = 0.135$, $p < 0.01$). Collectively, these results suggest that MS-13's reaction to the exceptional measures involved a higher degree of coordination and communication. This is a crucial feature in Duchek's (2020) resilience framework, associated with the capacity of organizations to deal with disruption.

Interestingly, the model shows that ties between members of La Federación did not have a higher propensity to persist. The coefficient for the corresponding parameter was negative and not statistically significant. It had been anticipated that connections between La Federación members would tend to persist, as it helped MS-13 deal with the disruption caused by the implementation of the exceptional measures. This suggests that the resilience mechanism provided by La Federación did not rely solely on the connections between those who were members. Instead, results indicate that its functioning and effectiveness may be related to the coordination between members of La Federación and other individuals within the organization. This is consistent with the results obtained in by keyplayer algorithm in T3 and T4. The algorithm selected a member of La Línea Principal (pi010), two members of the direct contact group (pi020), and a homeboy (pi014). These people were also chosen by the algorithm in T1 and T2, as described in the previous section. This implies that they were not only central under normal working conditions, but also in leading the network into the retrenchment phase. The keyplayer analysis also selected a corredor de progama (pi021) as a central person

during the retrenchment phase. His enhanced involvement complements the organizational and hierarchical levels in navigating adversity in T3 and T4. This suggests that communication across the gang was maintained during this period. In fact, the interaction patterns indicate that communication and coordination across organizational and hierarchical levels was vital as the gang transformed. As shown in Figure 4.3, members of La Línea Principal (pi010) and the direct contact group (pi020) were designated to the same subgroup by the community detection algorithm as individuals identified by the keyplayer analysis who did not belong to La Federación, the corredor de programa (pi021) and the homeboy (pi014). The diversity found among these people is also consistent with the analysis of focus groups interviews that suggests MS-13's resilience is rooted in its organizational structure and the succession chains it generates.

Table 4.2 Tie Persistence Model for the Cross-sections of Operation “Jaque”

Parameters	Coefficients	SE
Endogenous Effects		
Edges	-0.652***	0.197
Reciprocity	1.806***	0.226
GWIDEG	-1.720***	0.228
GWODEG	-1.643***	0.218
DGWDSPP	-0.041**	0.014
DGWESP	0.495***	0.107
Exogenous Effects		
Intergroup Communication	0.135**	0.049
La Federación Membership	-0.043	0.143

4.10. Discussion and Conclusions

One of the policy options used by countries of the Global South to reduce violence is to negotiate with criminal organizations like the MS-13. These agreements are progressively viewed in some countries as a justifiable and viable violence reduction policy, despite their volatility and the risks of hiding and worsening the problem instead of dismantling it (Cruz, 2019; Cruz & Durán-Martínez, 2016; Freeman & Felbab-Brown, 2021). These arrangements remain secretive and unofficial. Their impact on criminal organizations is also unknown. What does the structure look like under these arrangements, and how is this structure impacted once the agreement breaks down? The most recent reformulation of resilience identifies the capability of illicit organizations

to anticipate disruption as a type of resilience. Although the power and influence of illicit organizations in Latin America is largely attributed to ephemeral allegiances with state agents, their capability to anticipate, adapt, and overcome attacks that follow the ending of these understandings has not been previously studied. The current study aimed to expand on this body of research by documenting and analyzing the social organization of MS-13 in El Salvador and resilience mechanisms devised in anticipation of crises.

The first step in the analysis was to identify the mechanisms put in place by the gang in anticipation of disruptive events through focus groups interviews, conducted with Salvadoran prosecutors. The resilience mechanisms persistently brought up by participants, which they argued were created by MS-13 to recuperate and regenerate after attacks, were the gang's network of clicas, programs, ranflas, and La Federación and the clear succession chains established through this structural arrangement. The results are consistent with previous investigations that study resilience in illicit organizations, which note that replacements must be both capable and trustworthy (Bright et al., 2017; Duijn et al., 2014). Having a predefined succession chain allows potential replacements to earn both experience and credibility. Similarly, the results are in line with the type of architecture suggested by the literature that examines organizational resilience from an evolutionary perspective. Duchek's (2020) resilience framework notes that the capacity of organizations to anticipate, prepare, and deal with crises is linked with structural configurations that facilitate the communication and coordination across organizational and hierarchical levels. Consistent with this observation, the resilience mechanisms identified during focus group interviews allow the interaction across jurisdictional groups and hierarchical designations within the gang.

This study recreated the gang's network using wiretap data from two criminal investigation operations to examine these mechanisms within MS-13's social organization. Wiretap call logs from operation "Bosques" were used to recreate the organization of a clica and the gang's top command structure was reconstructed using call logs from operation "Jaque." Both operations allowed the analysis to examine the structural configuration of MS-13 under normal circumstances. Operation "Jaque," additionally, coincided with a disruptive event, which provided an opportunity to analyze the gang's top command structure as it dealt with and adapted to the exceptional measures law, which authorized the complete and indefinite isolation of incarcerated MS-13 leaders. The relational structure found in the operation "Bosques" and operation

“Jaque” networks are consistent with the insight provided by prosecutors. Resilience mechanisms allowed people from different jurisdictions and hierarchical levels to communicate both under normal conditions and in the face of a crisis.

The network data show more precisely how that was achieved. This study suggests that the network architecture of MS-13 was held together, both under normal circumstances and in the face of crisis, by individuals who spread across the jurisdictional groups and hierarchical levels. Results are consistent with redundancy that characterizes institutionalized gangs (Ayling, 2009) and found in illicit organizations capable of recovering more easily from disturbances (Bright et al., 2017; Duijn et al., 2014; Duxbury & Haynie, 2019). In fact, the interaction between these people increased in the cross-sections of the operation “Jaque” network that coincided and followed the disruption caused by the enactment of the exceptional measures. This suggests that resilience mechanisms were crucial to face the disturbance, which is in line with Duchek’s (2020) assertion that relational configurations that empower lower-ranking members and connect otherwise isolated units within an organization, allows for a more inclusive decision making process, increases its knowledge base, and, therefore, enhances its capability to understand and react adequately and effectively to crises. The STERGM estimated in this study indicates that the resilience mechanism led by La Federación helped the top command structure shift to a more secure and efficient relational structure, keeping communication channels open only between trusted individuals and people that allowed for a more robust flow of information within the network. Ouellet et al.(2017) associate network reconfigurations aimed at increasing security with the correct anticipation of conditions that increase risks for illicit organizations.

Results also suggest that the configuration and overlap of resilience mechanisms vary across organizational levels. The communication between people distributed across hierarchical levels was more central in the operation “Bosques” network, whereas the mechanism that connected the clica to other jurisdictional groups in the wider MS-13 network of programas and ranflas, was brokered through the corredor de clica and his closest contacts. The gang status of the people identified by the keyplayer algorithm resembles a local succession chain that might activate if a clica member is arrested or killed. Previous research on MDTOs indicates that having a predefined replacements mitigates the potential consequences of disturbances (Jones, 2013; Jones, 2016). Both

Bright et al. (2017) and Duijn et al. (2014) note that trust and reputation facilitate the succession of individuals removed from illicit networks. Having clear replacement chains provides an opportunity for successors to generate credibility and trust across the organization, as well to accumulate know-how and skills. Interestingly, individuals unassociated with the gang were among those central to the functioning of the operation “Bosques” network. This highlights the vital role played by the MS-13’s vast support network of people that aspire to belong or collaborate with the gang, which was brought up repeatedly during focus groups interviews and identified as an important component of resilience mechanisms. The participation of these individuals and their disposition to collaborate with MS-13 may help the gang create a sense of omnipresence in its turf, providing it with unlimited proxies willing to look after its interests if gang members are arrested or killed. This provides the rest of the gang an opportunity to rebuild without losing their foothold.

The group of people selected by the keyplayer algorithm in the top command structure shows an overlap between the two resilience mechanisms identified by focus group participants. It involves individuals from different jurisdictions and hierarchical levels, all of them gang members. This heterogeneity may reflect the more complex function performed by this organizational structure. The focus of the operation “Bosques” network is operational and concentrates on practical matters, whereas the operation “Jaque” network focuses on multijurisdictional coordination and strategic issues. This is consistent with previous research that found variations in the structural configuration across illicit networks is associated with the differences in the role played by different parts of the organization (Malm & Bichler, 2011; Morselli et al., 2007). The results obtained through the STERGM estimated in this investigation are also in line with these findings. They show that the functioning of La Federación does not completely rely on the communication between its members but rather in its ability to facilitate interactions across the gang.

The current investigation provides numerous insights informing about resilience in illicit organizations, but there are noteworthy limitations that future research must address. First, this data provides only partial picture and limited the analysis. For instance, the study analyzed distinct organizational levels separately. The investigations used to recreate MS-13’s social organization focused on specific parts of the gang and, therefore, provided a narrow view of its wide network. Similarly, only one of the

investigations coincided with a significant disturbance, so the analysis was only able to look at how the gang dealt with disruption at one organizational level. Additionally, this study concentrates on a very specific and relatively rare type of illicit organization. Previous literature suggests that resilience varies across criminal organizations due to their particular network configurations (Duxbury & Haynie, 2019). This investigation is limited to examine the capacity of illicit organizations to foresee and prepare for disruption to a multi-level street gang that has achieved a rare level of influence and reach in a Latin American setting. It is very likely that layout, configuration, and nature of resilience mechanisms in other illicit organizations and contexts are different.

The results presented here, however, reveal and document resilience mechanisms in the context of a secret negotiation between an illicit organization, state agents, and politicians and its termination. This study highlights the relevance of widening the examination of resilience in illicit organizations to include the capacity of members to anticipate crises and devise and implement mechanisms to endure and adapt, particularly in assessing the risks associated with violence reduction approaches based on secret collaborative arrangements with authorities. The results also evidence that cohesion and organization, which are crucial for secret pacts to work, also serve as resilience mechanisms that perpetuate the functioning of illicit organizations and make it harder to dismount them. It is rare to find network data available to examine illicit organizations before, during, and after interventions. It is even more uncommon to have access to this sort of data in Latin America, particularly in the Northern Triangle of Central America. The findings suggest that it is important to gain a better understanding of the dynamics behind the process through which illicit organizations identify and analyze potential threats, as well as how they devise and implement contingencies that help navigate future adversity. They also shed light over the potential dangers associated with violence reduction policies that involve secret negotiations with illicit organizations in terms of their role in generating conditions that empower these groups and provide incentives for them to devise and implement resilience mechanisms that strengthen their organization. Given the results presented here, the initial decrease in violence that may result from the implementation of such approaches should be viewed with caution, as it may be just a mirage that hides the problem while it keeps worsening.

Chapter 5.

Conclusion

This thesis studied offender choices in extortion under the singular conditions of El Salvador, Central America. Extortion is one of Latin America's most pervasive and devastating crime issues. In El Salvador, it is particularly widespread and debilitating, as some of the world's most powerful super gangs, such as MS-13 and Barrio 18, employ it to rule over communities across the country in collusion with state agents and politicians (Insight Crime & Global Initiative Against Transnational Organized Crime, 2019; International Crisis Group, 2017). The three studies in this thesis examined how different conditions prevalent in Latin American countries such as El Salvador, impact offender choices associated with extortive offences.

The Southern Criminology movement argues that the discipline needs to examine crime under extreme circumstances such as those in Latin America, to complement its virtually exclusive focus in countries of the Global North, which function under very different conditions (Carrington et al., 2016). Criminological research in Latin America and, particularly in Central America, is indeed scarce. To explore how the circumstances behind crime in the region shape extortive offences, the current thesis turned to the criminal governance framework, developed by political scientists. The literature on criminal governance identifies various types, largely distinguished by the existence or the degree of consolidation of partnerships between illicit organizations and the state (Arias, 2017; Barnes, 2017; Lessing, 2021). This differentiation in criminal governance was used to characterize the circumstances in El Salvador and examine their impact over extortive crimes from a rational choice perspective. Collectively, the investigations in this thesis provide a nuanced view of how the incentives and constraints associated with various criminal governance regimes shape decisions associated with these offences.

Each investigation explored offender choices linked to extortive crimes under a different variety of criminal governance by looking at three separate timepoints in El Salvador's recent history. The first study examined a transitional period in which both the state and illicit organizations were unconsolidated and struggling to find their place in the

Salvadoran landscape, amid the drastic changes that followed the end of an internal armed conflict, which ravaged the country for more than a decade. During this time, the interactions between authorities and crime groups were largely confrontational. The collaboration between criminals and officials was limited or inexistent. Certain crime groups, for instance, managed to enlist the help of low-ranking police officers in the execution of crimes. However, these partnerships were not institutionalized, widespread, or structured. Rather, they were sporadic, volatile, and limited in both scope and duration. The second study, conversely, focused on a more stable time characterized by strong cooperative relationships between illicit organizations, state agents, and politicians. There was a notably higher level of hegemony in illicit organizations and state agencies, which allowed arrangements to be negotiated at the highest levels of local and national governments, between officials and gang members who occupied leadership positions in MS-13 and both factions of Barrio 18, Sureños and Revolucionarios. Street gangs agreed to reduce the number of homicides and provide electoral support in exchange of cash remunerations, benefits for incarcerated leaders, and a diverse array of payments inside the correctional system and outside, in their communities (Aguilar, 2018, 2019; Cruz, 2019; Dudley, 2020). The third study concentrated on the final months of this collaboration, its rupture, and the consequent shift back to a confrontational arrangement. After the partnership between street gangs and officials ended, authorities launched various repressive measures aimed at disrupting street gangs, particularly their top leadership structure (Aguilar, 2018).

In Central America, the coarse data required to investigate offender choices is scarce. Researchers seldom have access to incident and offender level information that captures such details. The three investigations in this dissertation are unique in this respect, as they were granted access to data rarely made available for scientific research. Information from a diverse set of sources was used to examine different types of choices associated with extortion during the periods of interest. Rather than focusing on a single type of offender decision, this dissertation explored a varied collection of choices linked to several aspects of extortive offences. The first two studies looked at offender decisions in the context of the execution of offence-related tasks in two types of extortion using two different data sources. The first study examined official records from the Attorney General's Office in El Salvador to explore offender decisions associated with the geography of ransom kidnappings, the most predatory type of extortion,

perpetrated between 2000-2006. The second investigation used a business victimization survey conducted in El Salvador at the beginning of 2015, to analyze offender choices across the crime commission process of extortion for protection. Since the results of the first two studies allowed to distinguish how choices associated with offence-related tasks are affected by criminal regimes at opposite ends of the spectrum, the final study, instead, the interaction patterns in the network configuration of MS-13 produced by offender choices aimed at achieving a balance between security and efficiency. MS-13 is one of the super gangs heavily involved in extortion rackets in El Salvador. The study used wiretap call logs from two criminal investigations to recreate MS-13's network at various organizational levels. The three studies, although different in various ways and focused on differing features of extortion, were all aimed at determining whether the patterns found in offender choices were consistent with the constraints and incentives generated by the type of criminal governance that was in place. The results were, in general, consistent with the assumptions suggested by the literature. Collectively, the findings generated by the analytic strategies employed in the three studies indicate that:

1. Unstructured criminal governance arrangements, characterized by a lack of hegemony in both the state and illicit organizations, or otherwise confrontational criminal governance regimes that involve an antagonistic relationship between both parties, result in more restrictive constraints and incentives that place more limits over offender decisions.
2. More stable and organized criminal governance regimes which involve collaborative understandings between illicit organizations and the state, generate circumstances that place less restrictions on offender choices for members of crime groups involved in active partnerships with officials.
3. Within the constraints and incentives imposed by each variety of criminal governance, the impact over offender choices can be mediated by endogenous and exogenous features associated with each illicit organization.
4. The limits placed on offender choices vary as illicit organizations and the state shift from one criminal governance regime to another. Restrictions may decrease through the establishment of collaborative pacts or enhanced by the erosion or termination of these understandings.

5.1. Impact of Unconsolidated and Confrontational Criminal Governance Regimes

The three studies in this thesis suggest that offenders who are not part of a partnership with official authorities and, therefore, do not benefit from the protection provided by this type of collaborative relationship, must navigate stricter constraints, and select from a narrower pool of available choices associated with the execution of crimes and their interaction with others. Under such circumstances, perpetrators are subjected to the same risks and costs as anybody else who commits crimes. Although those who belong to an illicit organization may have access to more resources and benefit from the group's accumulated reputation, they still must avoid being identified and arrested by law enforcement. This may make things easier for members of a criminal group or gang, but it still impacts and, ultimately, shapes their decisions if their organization does not have a deal with authorities.

The study examined ransom kidnapping looked at the most unstructured and confrontational criminal governance regime in this dissertation. Its results suggest that the spatial choices of kidnappers are largely aimed at detection avoidance, particularly those that involve higher risks. This is consistent with the literature which indicates offenders select abduction sites by identifying the location that involves less risk within the movement patterns of victims, reducing the chances of being identified and arrested while the targeted individuals are quickly intercepted and taken hostage (Marongiu & Clarke, 1993; Moor & Remijnse, 2008). Captivity and release sites, conversely, are riskier for offenders as they must hold the victim captive while they negotiate the ransom and then set them free once the payment is delivered (Marongiu & Clarke, 1993; Wright, 2009). The results show that captivity and release sites are usually closer together in comparison to abduction sites. The fact that both site types are relatively in the same general area implies that they carry a similar risk for offenders. Since these locations are where kidnappers are most vulnerable, risk is a priority and, therefore, detection-avoidance heavily influences their selection. Offenders choose locations that allow them to manage the probabilities of being surprised by authorities (Marongiu & Clarke, 1993; Wright, 2009). Under a confrontational criminal governance regime that involves a volatile criminal landscape with different crime groups competing for a piece of the pie, such as the period in El Salvador's history investigated in the study, offenders must choose from a limited number of locations to keep their victims captive and release

them. Since kidnapers do not have control over large areas, there are fewer places where they can safely keep hostages and set them free without risking being reported to the police or apprehended.

Perpetrators who engage in opportunistic extortion face similar constraints as those in unstructured or confrontational criminal governance regimes. They must select from a limited variety of options to execute offence-related tasks compared to systemic extortionists, who belong to street gangs in a collaborative relationship with government officials. Although the second study in this dissertation examined a period of strong partnerships between MS-13, Barrio 18's Revolucionarios and Sureños, state agents, and politicians, offenders who did not belong to these illicit organizations and engaged in opportunistic extortion, did not benefit from the protection of authorities. Just as perpetrators in unstructured or confrontational criminal governance regimes, opportunistic extortionists were themselves in an antagonistic relationship with authorities and, therefore, had to navigate similar constraints. Besides avoiding detection from authorities, they must look out for the systemic extortionists who they sometimes impersonate. Instead of acting bluntly and openly, opportunistic offenders were found to execute extortions in such a way that limited their contacts with victims, seized interactions even without payment when victims resisted, and employed methods that assured their anonymity. These distinctions are consistent with the literature that describe opportunistic and systemic extortionists (Konrad & Skaperdas, 1997; Savona & Zanella, 2019; Smith & Varese, 2001; Transcrime, 2009).

Even those who engaged in systemic extortion and, thus, enjoyed the protection of the state, were found to face similar restrictions to opportunistic extortionists when they stepped outside the areas they controlled. In collaborative arrangements, cities function under plural security orders with some areas ruled by the government and others by illicit organizations (Arias & Barnes, 2017). The findings obtained in the third study revealed a novel type of extortion designated hybrid extortion because it combines choices found in opportunistic extortion with decisions associated with systemic extortion. The blend of choices is consistent with scenarios described in the literature in which offenders who normally engage in systemic extortion venture outside their territory and their lack of local influence and control forces them to limit contacts with victims and employ methods generally used by opportunistic extortionists to avoid detection (Insight Crime & Global Initiative Against Transnational Organized Crime, 2019). Agreements

with authorities may be limited to actions executed by illicit organizations in the communities they have been awarded authority over. Crimes perpetrated outside those areas, even if committed by people who belong to criminal groups that participate in the partnership, are subjected to the same rules as everyone else and, therefore, face similar constraints as crimes executed under a confrontational criminal governance regime.

Besides the restrictions these conditions levy over offender decisions, the results of the studies presented here also suggest that ransom kidnappers, opportunistic extortionists, and hybrid extortionists face differing incentives that influence choices associated with the execution of offence-related tasks. Although under different circumstances, these offenders seek to secure their share of the market in very competitive settings. Kidnappers, for instance, compete for targets from the limited pool of victims who have the means to pay a ransom. Both opportunistic and hybrid extortionists compete against other extortionists for victims who can afford to pay their demands. This sort of dynamic may influence targeting methods and operational choices in general. For instance, some offenders who usually engage in systemic extortion turn to hybrid extortion to create a personal income stream when they are sent to prison (Insight Crime & Global Initiative Against Transnational Organized Crime, 2019). In such circumstances, perpetrators may look for victims who have not been targeted by systemic extortionists, otherwise they risk not receiving a payoff. Similarly, opportunistic extortionists may seek to target people or businesses not already paying others. Some kidnappers, for instance, look for ways to identify potential victims in distant locations (Marongiu & Clarke, 1993).

The restrictive effects of confrontational criminal governance regimes were also identified in choices associated with the network architecture of MS-13's top leadership structure. The third study in this dissertation found that the gang's network configuration changed once its agreement with state agents and the ruling political party ended, and they returned to a confrontational relationship with authorities. The analysis suggests that this structural transformation is consistent with a move towards a retrenchment phase that involved giving higher priority to secrecy and security (Airola & Bouchard, 2020). Individuals in the network reduced the amount of people they contacted, ties with trusted people had a higher chance to persist. The transformation observed in the interaction patterns was aimed, at least partially, at avoiding detection and keeping

business going. This is consistent with previous investigations that suggest that illicit organizations change or shape their network structure in response to potential threats (Morselli et al., 2007; Ouellet et al., 2017).

5.2. Impact of Hegemonic and Collaborative Criminal Governance Regimes

The second and third investigations examined the most hegemonic criminal governance regimes in this dissertation. Both looked periods in which there was a strong collaboration between street gangs, state agents, and politicians. Their results suggest that, under these circumstances, offender choices are subjected to more lenient constraints and a different set of incentives.

The findings from the second study in this dissertation are consistent with previous literature on extortion, which distinguishes between systemic and opportunistic subtypes of the offence and conveys the execution of the former as blunter, more visible, and direct compared to the latter (Savona & Zanella, 2019; Transcrime, 2009). The more explicit execution of systemic extortion may be partially attributed to the role played by offenders in their community. Some illicit organizations engage in systemic extortion in contexts in which the presence of the state is weak, offering protection and other services to residents and businesses in exchange for payment (Alexeev et al., 2004; Aziani et al., 2020a, 2020b). The more structured and consolidated crime groups can even enhance security by reducing traditional forms of crime (Aziani et al., 2020a, 2020b). In Central America, drug trafficking organizations that provide such services in rural areas enjoy the favour of local residents (Blume, 2021). Under these conditions, people may consider those who belong to illicit organizations authority figures, just as police officers are viewed in other settings. Collaborative criminal governance arrangements can facilitate, legitimize, and even encourage this perception.

Some understandings between illicit organizations and state agents, for instance, are based on the instrumentalization of crime groups to manipulate voting outcomes through the intimidation of those who are suspected to support rival candidates (Albarracín, 2018). There is an abundance of examples in Latin America that illustrate this type of arrangement. From the Chavismo's colectivos in Venezuela (Werlau, 2014) to the super gangs in El Salvador that forged allegiances with mayors and the central

government (Aguilar, 2019; Martínez, 2018; Martínez, Martínez, Arauz, et al., 2020). Under these conditions, illicit organizations are not only expected to be visible and blunt, but there is also an incentive for them to act that way. Some arrangements involve a more explicit legitimization of the authority exercised by crime groups. In El Salvador, the indictment against a mayor who established a partnership with a Barrio 18 clique, revealed that he hired gang members to work for him as municipal police officers (Avelar, 2017). However, in both arrangements, the risk of being arrested or even reported to the police is lower for those who belong to illicit organizations in partnership with officials than for perpetrators that commit crimes under normal circumstances. Facing a lower risk of detection, removes constraints on offender choices. Perpetrators may act more openly, without adopting strategies to hide their identity or shorten the duration of the offence. The results of the investigation on extortion for protection presented in this thesis are consistent with this premise. Systemic extortionists were found to perpetrate their crimes in areas that exhibited more evident signs of gang control and favoured repeated and direct interactions with victims. The more open way in which these perpetrators acted suggests that they felt at ease in places where their authority had been legitimized, confident that they would not be reported to authorities or, if they were, they would not face any serious consequences for their crimes.

The results of the third investigation are consistent with this interpretation. Before the deal between MS-13, state agents, and the ruling political party ended, the network configuration allowed fluid communications and interactions across and within different hierarchical levels of the gang. This was observed both in the examined clica and MS-13's top command structure. Illicit networks that give a higher priority to security tend to limit interactions, while those that favour efficiency tend to adopt network configurations that increase communication and redundancy (Duxbury & Haynie, 2019; Morselli et al., 2007; Morselli & Petit, 2007). The gang's top command structure was focused on expanding operations before the pact with authorities was terminated. Its network grew between the first two observations, while the pact was in place. It was until the third period examined in the study that the network started to contract, after the deal had dissolved. This change suggests that offenders chose to interact more openly, worrying less about detection avoidance while the deal was active.

The findings from the study that examined extortion for protection suggests that under this type of circumstances, while benefiting from the protection of authorities, there

is also an incentive for illicit organizations to venture out of their turf to expand their local influence and control. Hegemonic illicit organizations that control more territory and have a tighter grip over local resources are more attractive for authorities to create understandings (Snyder & Duran-Martinez, 2009). Territory oriented illicit organizations such as gangs, engage in systemic extortion to define turf boundaries and also to assert, maintain, and widen their control over local resources (Savona & Zanella, 2019; Transcrime, 2009). This is the type of influence that politicians and state agents seek to exploit through allegiances with criminal actors. Illicit organizations may be enticed to expand extortion rackets to neighbouring areas, adjacent to those already under their control, in an effort to improve their appeal among politicians and other actors in their environment. This scenario is consistent with the hybrid extortions identified in the investigation. Systemic extortionists who turn to hybrid extortion to expand territory may face a higher risk of being reported to authorities and arrested outside their immediate area of control but are motivated to keep the extortion racket going to improve their appeal as potential partners.

5.3. The Mediating Role of Endogenous and Exogenous Features

Despite the limitations faced by illicit organization that do not have a collaborative arrangement with authorities and the choice-widening effect produced by the existence of such understandings, findings also showed that the impact of criminal governance regimes may be mediated by exogeneous and endogenous associated with each group. This is consistent with the literature that notes an interaction between criminal governance, the groups that exercise it, and the nature of the context in which arrangements emerge (Arias, 2017; Arias & Barnes, 2017). Certain contextual and group characteristics can debilitate or hinder the effects of the constraints and incentives associated with criminal governance regimes that shape offender choices.

In unstructured criminal governance regimes, such as the one examined in the ransom kidnapping study, the spatial reach of most crime groups was limited and, therefore, so were the crime opportunities they could access. The pool of potential victims or crime opportunities was restricted by each group's mobility capabilities. More criminally proficient illicit organizations, however, can expand their reach and access distant opportunities through partnerships and risk-sharing (Morselli & Royer, 2008).

Previous literature indicates that groups that kidnap victims in wealthier areas resort to more sophisticated methods, like enlisting the help of informants who provide details about potential targets and their movement patterns (Marongiu & Clarke, 1993). The findings of the study presented here are consistent with this observation. The analysis measured criminal proficiency through two variables. First, it was hypothesized that more proficient groups would have access to the most valuable targets. This assumption was operationalized through the ransom amount paid to kidnappers. Second, it was expected that more proficient crime groups would be more effective in negotiating ransoms and, therefore, the ransom amount paid would be closer to the ransom amount that was demanded. This was measured by dividing the ransom amount paid and the ransom amount that was initially demanded. The analysis indicated that crime groups that received higher ransom payments and were more effective negotiating ransoms, travelled further to release victims. More proficient illicit organizations, therefore, may escape certain limitations associated with not having a partnership with authorities in unstructured criminal governance regimes. This is also consistent with criminal governance classification schemes, which distinguish between illicit organizations that are criminally consolidated and those that are not (Arias, 2017).

The mediating effect of criminal proficiency was also observed in the third study, which examined offender choices before and after the termination of a collaborative criminal governance regime. When their partnership with street gangs ended, authorities launched several repressive measures against both MS-13 and Barrio 18. Lawmakers enacted legislation that allowed correctional authorities to place the MS-13's *ranfla histórica* in solitary confinement indefinitely. This move increased constraints that limited interaction among members, restricting coordination and communication across the gang. The aim, however, was to interrupt the flow of information between the various programs and cliques. Findings of the third study revealed that MS-13 devised and implemented various mechanisms to enhance its resilience capabilities to face circumstances such as those caused by the isolation of incarcerated leaders. Resilience mechanisms helped cushion the impact sought by the seclusion of the *ranfla histórica*. It allowed the gang to avoid the desired effect and prevent its fragmentation, helping it adapt to the new circumstances, and facilitated interactions across and within its organizational structure. This is consistent with the relatively high degree of resilience that has been previously attributed to Central American super gangs, particularly MS-13

(Ayling, 2009). Street gangs are especially prone to disappearing once members age out (Pyrooz, 2014). The relative sophistication and high resilience of institutionalized gangs in the Northern Triangle of the isthmus, particularly MS-13, has been noted in previous literature (Ayling, 2009, 2011; Farah, 2012a, 2012b; Farah & Babineau, 2017; Sullivan, 2006). The third study suggests that resilience mechanisms help illicit organizations deal with the constraints of confrontational criminal governance regimes in which they are specifically targeted. These results are especially important considering that establishing secret pacts with illicit organizations is increasingly being considered as a justifiable and effective violence reduction strategy among Latin American countries (Freeman & Felbab-Brown, 2021).

This kind of impact moderation was also observed in extortion for protection. The effect criminal governance was mediated by various aspects. Systemic extortionists who are arrested and placed in custody can turn to hybrid extortion to subsist while incarcerated only if they manage to overcome the harsher restrictions they face, which significantly limit their choices to execute such crimes. The literature that explores extortion in Central America explains that it is common for gang members to enlist the help of family members and other individuals to help them perform high-risk tasks or execute actions that they are otherwise unable to carry out (Insight Crime & Global Initiative Against Transnational Organized Crime, 2019). Access to this type of support network thwarts the constraints forced on gang members in prison. Similarly, hybrid extortions perpetrated by members of illicit organizations involved in systemic extortion with the purpose of expanding the group's territorial control, may benefit from contextual features that remove the constraints associated with perpetrating crimes outside their immediate area of influence. The spatial configuration of Central America's urban landscape facilitates access to a wider pool of victims who can be targeted for hybrid extortions because they are close enough to gang territory to may perceive gangs as an imminent threat. Marginal communities that serve as breeding grounds for gangs such as MS-13 and Barrio 18, are dispersed across cities, embedded within residential areas, business districts, and even in some of the most exclusive areas (Savenije, 2009). This makes it easier for street gangs to look for victims outside their communities if they want to expand their influence and control. Being in proximity to areas with signs of gang presence and control, may also make people and businesses perceive gangs as ubiquitous, which would make them more likely to give into extortion demands. This

sentiment can be enhanced under collaborative governance regimes that legitimize the authority of illicit organizations.

5.4. Impact of Criminal Governance Regime Shifts

Collaborative criminal governance arrangements are not permanent, stable, or invulnerable. Rather, these agreements are fragile and extremely volatile. They are easily eroded and may end unexpectedly. Partnerships between illicit organizations and state agents are based on the ability of parties to manage negotiations and abide by their agreements (Snyder & Durán Martínez, 2009). The removal of those who participate in the establishment and maintenance of understandings may significantly affect collaboration or even cause the termination of partnerships. Changes in government due to electoral results, like in Mexico (Trejo & Ley, 2016, 2018), or caused by other unforeseeable circumstances, like the sentence of Supreme Court in El Salvador that called for the removal of the minister of Justice and Public Safety (Aguilar, 2018; Dudley, 2020), may cause the sudden dismissal of public officials responsible for forging and operating allegiances with criminal actors. Abrupt changes such as these impact the stability of collaborative criminal governance arrangements. The third study in this thesis indicated that such shifts increase the constraints to offender choices.

Partnerships between illicit organizations and authorities may also end when they become politically unfeasible for public officials and the ruling party. State agents favour secret negotiations precisely because they are unwilling to deal with the political backlash associated with dealing with criminal actors (Freeman & Felbab-Brown, 2021). This thesis looked a shift back to a confrontational criminal governance provoked by Salvadoran authorities in this type of circumstances. The ruling party pivoted to an openly repressive approach to address street gangs, largely in response to growing public criticisms that denounced and condemned its secret deal with MS-13 and Barrio 18 (Aguilar, 2018, 2019). The study presented here examined the effect caused by the isolation of MS-13's top command structure over choices associated with interaction patterns in the stop governance structure of the gang. The findings of the investigation suggest that the implementation of this measure placed constraints on offender choices. The transformation observed in the network architecture of MS-13's top command structure suggests that the new circumstances forced gang members to prioritize detection-avoidance and choose to interact in a more secure manner.

5.5. Conceptual Model of Offender Choices in Extortion Under Criminal Governance

Entrenched in the Southern Criminology movement, this thesis aimed to investigate the impact that the singular conditions found in countries of Latin America, like El Salvador, have over offender choices in extortion. The central premise behind this movement is that criminological explanations and research must break away from their almost exclusive northern-centric focus to complement and expand current theoretical constructs, through studies that seek to gain a more thorough understanding of how the circumstances in certain areas of the Global South shape its extreme crime problems (Carrington & Hogg, 2017; Carrington et al., 2016). The conclusions described in the previous section provide relevant insight to refine and augment the application of the rational choice perspective to examine extortive offences in contexts such as E Salvador.

Both crime and the settings in which it emerges are indeed distinct in Latin America. The region is characterized by its extreme violence and higher exposure to organized criminal activity and corruption (van Dijk et al., 2021). This type of circumstances lends itself for criminal governance regimes to develop and criminal actors to rule over large portions of the territory, sometimes in collusion with the state. Such dynamic distorts the role played by the authorities and illicit organizations, which violates vital assumptions at the core of some criminological theories (Arias, 2019). Understanding how these circumstances shape offenders choices is crucial to design effective policies (Jaitman, 2019).

This dissertation examined extortive offences from a rational choice perspective to better comprehend offender decision-making in conditions such as those in El Salvador. The main premise of the rational choice perspective is that offender decisions are guided by constraints and incentives associated with the rewards, risks, and costs perceived by potential perpetrators. Offender decision-making is generally assumed to be aimed at avoiding detection, reducing the chances of being apprehended, and maximizing payoffs. In contexts like El Salvador, however, it is fair to assume offenders are not as worried over avoiding detection or being arrested. Partnerships with state actors responsible for enforcing laws, may eliminate these elements from the decision-making process followed by those involved in the collaboration. The conceptual model

presented here summarizes how the overlap between official authorities and illicit organizations under these conditions affect the constraints and incentives perceived by offenders and, ultimately, their choices.

The preliminary conceptual model is illustrated in Figure 5.1 summarizes how the interaction between criminal and state actors associated with distinct varieties of criminal governance found in countries like El Salvador, impact offender choices in extortion for perpetrators who belong to an illicit organization. In it, I propound that the restrictions and incentives imposed by criminal governance regimes on offender decisions in extortive crimes vary across two dimensions: (1) the degree of collaboration that exists between illicit organizations and state agents; (2) the effect of endogenous and exogenous features. This is consistent with Arias (2017), who proposed criminal governance regimes differ in terms of the proximity between illicit organizations and the state, and the degree of criminal consolidation exhibited by the former. It is also in line with previous explorations of criminal governance in Latin America, which note the reciprocal influence between local features, group characteristics, and criminal governance (Arias & Barnes, 2017). The results of the studies in this dissertation indicate that the combination of higher-order factors (degree of collaboration) and lower-order factors (endogenous and exogenous features) defines the constraints and incentives faced by offenders in the decision-making process.

The typologies proposed in political science to distinguish between the different kinds of criminal governance, focus on the degree of criminal consolidation exhibited by illicit organizations and their proximity with state agents (Arias, 2017; Barnes, 2017). The higher and lower order dimensions of the conceptual model proposed here capture both criteria. The model, besides considering the mediating role played by endogenous factors such as the features associated with illicit organizations, adds exogenous factors to consider the effect of features associated with the context in which these groups are embedded. Instead of offering fixed categories to measure the intensity of the constraints imposed on offender choices, the model visualizes variations in a bi-dimensional plane to acknowledge the diversity that exists within criminal governance arrangements and, additionally, the combination of elements that add or remove restrictions and incentives that shape offender decisions. This plane can serve as an analytical tool to contrast the situation faced by different illicit organizations. The position of each group in this plane is determined by the constraints and incentives produced by

the higher and lower order features it navigates. Organizations that deal with less constraints are positioned closer to the upper right corner, while those that navigate more restrictions are located to the lower left corner.

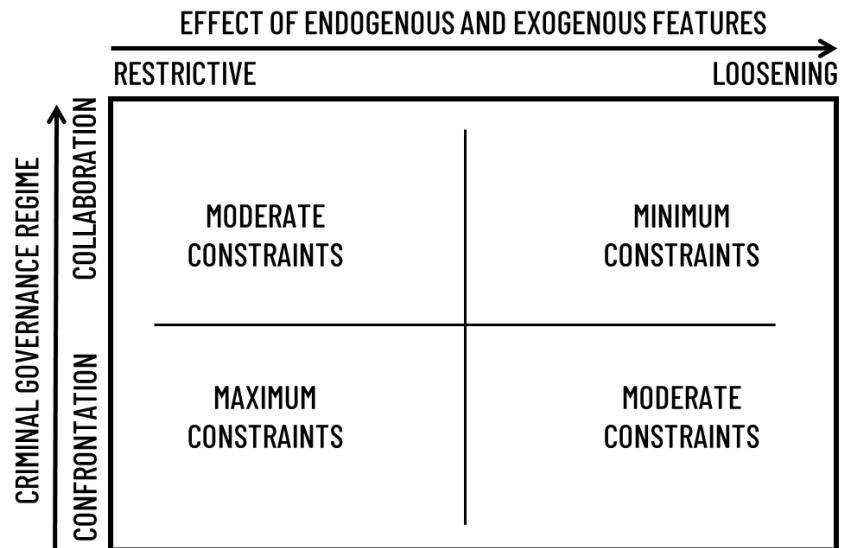


Figure 5.1 Preliminary Conceptual Model of Offender Choices in Extortion Under Criminal Governance

The results obtained by the studies in this thesis suggest that antagonistic criminal governance regimes place more constraints on offender choices. Under confrontational arrangements, the array of decisions available to criminal actors was limited. Offenders opted for choices that allowed to avoid detection and enhance security. Conversely, under a strong partnership between illicit organizations and authorities, restrictions were removed for those who belonged to the groups involved in the understanding. Offenders who benefited from the collaborative relationship with state agents, acted more freely, visibly, and bluntly. This difference was more evident in the third investigation in this thesis, which showed that when the partnership between MS-13 and ruling political party ended, interaction patterns became more consistent with detection avoidance. Individuals reduced their circle and only ties that indicated a higher degree of trust tended to persist. The network configurations while partnership with state agents was in place and when it ended are in line with the structural arrangements described in the literature for efficiency-focused and security-centered illicit organizations, respectively (Duxbury & Haynie, 2019; Morselli et al., 2007). This change was identified as MS-13 dealt with the constraints introduced by the shift from a

collaborative to a confrontational arrangement with authorities. Latin America provides several examples that illustrate the effects of modifying the type of interaction shared by criminal and state agents. For instance, Arias (2017) describes how a government intervention in Comuna Trece in Medellín, Colombia, disrupted existing arrangements, fragmented illicit organizations, and turned detection avoidance strategies into a priority to deal with increased presence of security forces. On the bi-dimensional plane of the proposed conceptual model, criminal organizations in both examples would be moved further down after the dissolution of their partnerships with authorities.

The disruption in Comuna Trece, additionally, illustrates important variations that need to be considered in distinguishing the effects of slightly different forms of collaborative criminal governance over offender choices. Specifically, differences in the proximity between illicit organizations and the various levels of government. Before the central government's intervention, criminal actors had forged local partnerships that legitimized their authority in Comuna Trece (Arias, 2017). Such collaboration can shield local criminal actors from the confrontational interactions with national authorities. The balance that existed prior to the intervention, as described by Arias (2017), was altered only after a higher level of government focused on that area of Medellín. Something similar is observed in El Salvador in the partnership between Elías Hernández, mayor of the municipality of Apopa, and the local branch of Barrio 18 (Avelar, 2017). Hernández, who belonged to the opposition party, ARENA, decided to establish his own local collaborative arrangement, separate from the wider pact reached between ruling party and the top command structure in MS-13 and Barrio 18 (Avelar, 2017). Essentially, a different collaborative arrangement established between the local government and local gang leaders. Besides Hernández, Salvadoran prosecutors have indicted several municipal officials across El Salvador for crimes committed under these arrangements (Flores, 2021). The effects over offender choices associated with the termination of the partnership in 2016 between the ruling party and street gangs may have been mitigated by local collaborative arrangements with municipal authorities. Before the collaboration ended, the choices of the Barrio 18 clique in Apopa were impacted by partnerships with both municipal and national officials. The termination of the pact would impact the position of the gang clique in the bi-dimensional space, but not as severely as other similar groups. The clique would be moved vertically down in the graph, but not in the same proportion as other Barrio 18 gang cliques with no active local partnerships. In the

latter, the new constraints imposed by the return to an antagonistic criminal governance regime would be fully in place, whereas the constraints would be mediated by the agreement with the municipal government in the case of the Barrio 18 clique in Apopa.

Besides the effects produced by the proximity that exists between illicit organizations and state agents, constraints and incentives on offender choices are also moderated by lower-order factors. The preliminary conceptual model proposed here acknowledges that restrictions imposed by criminal governance regimes can be softened by features associated with illicit organizations and the setting in which they operate. Criminal actors may be involved in a confrontational relationship with authorities, but still be proficient enough to overcome constraints that would drive less robust organizations to limit their actions exclusively to those that allow them to avoid detection. The very visible and overwhelming reaction of Joaquín “El Chapo” Guzman’s MDTO in Sinaloa, when his son was arrested by law enforcement agents illustrates this point. The kind of antagonistic interaction between the Mexican federal government and this illicit organization would push less organized and structured groups into hiding. The heightened sense of risk would constrain offender choices. El Chapo’s MDTO, however, launched a significant offensive in the city of Culiacán and cornered authorities until his son was released (Asmann, 2019). A similar display of organization and coordination was observed in the campaigns launched by the ELN. Although at different times, both groups executed open and blunt attacks against government infrastructure while involved in a confrontational interaction with the state. Street gangs in El Salvador launched a similar offensive against police officers and their families once their deal with the central government had dissolved.

The presence of endogenous elements such as large membership, access to more resources, and functioning under a sophisticated structural configuration would place illicit organizations more to the right in the plot of the proposed conceptual model in Figure 5.1. Groups that do not exhibit these features would be placed more to the left to show the relatively higher constraints that limit offender choices. Exogenous elements can also remove constraints, producing a similar effect. For instance, the proximity to crime opportunities outside the area influence of the illicit organization loosens the constraints for members who belong to them. Street gang cliques in the marginal areas dispersed around exclusive and commercial neighbourhoods in San Salvador, for example, have easy access to lucrative crime opportunities compared to other cliques

that operate in more secluded, rural areas. The Barrio 18 clique that rules over the marginal community of Las Palmas, couched in the expensive San Benito neighbourhood is a perfect example. The location of this group facilitated access to a wider pool of potential extortion victims. Taking advantage of its location, the Las Palmas clique extorts businesses in the Zona Rosa entertainment district in San Benito and was even been involved in car theft ring that targeted luxury models (“El Muerto, beneficiado por la tregua y acusado de más delitos,” 2014; “Pandilleros de la 18 de Las Palmas extorsionan a comerciantes de las colonias San Benito y Escalón,” 2014).

Illicit organizations that collaborate closely with the state and enjoy the loosening effects of endogenous and exogenous features that heighten their level of control and influence, are subjected to minimum constraints. The Barrio 18 gang clique in Las Palmas, for instance, functioned under these circumstances. César Daniel Renderos, “El Muerto” or “Cementerio,” one of the gang’s top leaders directly involved in the negotiations between gangs and authorities, has been identified by authorities and news reports as one of the groups more influential figures (Valencia, 2012). The Las Palmas gang clique not only enjoyed the benefits of participating in the understanding between the gang and the state, it also benefited from the access to lucrative crime opportunities because of its location. Crime groups that do not have a collaborative arrangement with authorities or features that loosen constraints, face more restrictions on offender choices. In the bi-dimensional plane shown in Figure 5.1, such illicit organizations would be placed in the lower left corner of the plot.

This preliminary framework is intended to provide a first step in the exploration of the impact that the conditions associated with criminal governance in Latin America have over offender choices in extortion. It is meant to enhance the application of the rational choice perspective by incorporating the effect that the singular circumstances in settings such as El Salvador have over the constraints and incentives perceived by offenders. The is by no means exhaustive or final. Rather, it should be viewed as the starting point to better understand the nuances associated with the extreme circumstances produced by criminal governance in the region and how they interact with offender decision-making in the context of extortive offences. Although aspects associated with crime in other Latin American settings have been considered, further research is needed to expand and complement the effects proposed here to incorporate the distinct realities of other countries in the region.

5.6. Limitations and Future Explorations

The studies in this thesis provide important insight about how the distinct varieties of criminal governance found in places like El Salvador, shape offender choices in extortion by imposing and removing constraints and incentives. Despite the relevance of these findings, there are important limitations that must be outlined. The limitations exclusively associated with the specific research objective and investigative approach adopted by each study were addressed previously in their corresponding chapter. This section addresses the limitations related to the broader objective of this thesis, which frames the three investigations and sought to identify differences in offender choices associated with the circumstances generated by diverse types of criminal governance.

The exclusive focus on extortion is one of this thesis's main limitations. Concentrating on extortive offences provides valuable insight to gain a better understanding of the effects of criminal governance regimes. Since the offence is closely associated with the conditions in which criminal governance develops and thrives, changes in offender choices that result from the conditions generated by different types of criminal governance may be more evident and, consequently, easier to detect. However, illicit organizations that engage in extortion also perpetrate other crimes, sometimes in the context of the commission of extortion. Looking at other offences as well is necessary to further refine our understanding of how offender decision-making is impacted under the criminal governance regimes of Latin America. For instance, studying the extreme levels of violence found in the Global South and in Latin America particularly, can provide a complementary perspective on the effect of criminal governance over offender choices, particularly for those who engage in extortion and have an incentive to deal with non-compliance.

Although research shows that violence in Latin America stands out, specifically its high homicide rates (UNODC, 2011, 2014, 2019; van Dijk et al., 2021), the execution of violent crimes may be affected by the type of criminal governance regime that illicit organizations navigate. In fact, changing how homicides are committed is at the base of some of the secret arrangements established between illicit organizations and state agents (Cruz, 2019; Freeman & Felbab-Brown, 2021). In El Salvador, homicide statistics show a sharp decrease in 2012 that coincides with the onset of the covert understanding between MS-13, Barrio 18, and the government (Katz, Hedberg, & Amaya, 2016). This

drop, however, is at least partially associated with the alteration of the methods employed by street gang members to commit murders, aimed at hiding the bodies of their victims, in an attempt to make violence less visible to keep their end of deal with authorities (Cruz & Durán-Martínez, 2016). Since the pact initiated, missing persons reports in the country notably increased and turned into a significant problem (Aguilar, 2018; FESPAD, 2021). This suggests that the effects of criminal governance over offender choices in concomitant violent crimes may be much different than those found in extortion, imposing constraints and incentives that lead to a more covert execution of violent crimes. Future investigations should examine the effects on these offences.

Another noteworthy limitation is that the studies presented here concentrate largely on examining the choices of perpetrators who belong to illicit organizations. Focusing on this type of offender allowed a clearer distinction of the effects of the different varieties of criminal governance over offender choices. However, as noted previously, certain criminal governance arrangements legitimize and enhance the authority exercised by crime groups in the territories they control. Illicit organizations that take on this type of role provide a variety of public services to people in their communities, like security (Alexeev et al., 2004; Grossman, 1995). In fact, the more organized and structured groups have been found to be effective in preventing ordinary crimes (Aziani et al., 2020a, 2020b). Common criminals may perceive a higher risk of being identified and punished by illicit organizations. The harsher methods employed by these groups have proven to be effective and feared. For instance, while El Salvador's government struggled to keep people from violating the movement restrictions enacted to control the spread of COVID-19 in 2020, MS-13 kept the residents in their communities under a strict curfew beating those who were found out in the streets (Martínez, Martínez, & Lemus, 2020). Sanctions for transgressions are more severe and swift under the rule of a crime group or a street gang. Secret pacts between criminal and state actors that seek to improve security, therefore, may produce additional constraints and remove incentives that common criminals must navigate. This is consistent with the findings of the second study of this dissertation, which identified the distinct choice configuration associated with opportunistic extortionists. Further examination is needed to determine how each type of criminal governance regime affects the decisions of a broader pool of common offenders.

Additionally, this thesis examined a limited number of criminal governance regimes. The three studies presented here investigated offender choices under fundamentally different types of criminal governance, which allowed the identification of variations associated with whether there was a confrontational or collaborative arrangement in place between illicit organizations and authorities. However, the findings suggested that although the degree of collaboration between criminal and state actors in criminal governance regimes affects offender choices, this impact is mediated by endogenous and exogenous features. The preliminary model proposed previously acknowledges the complexity of this interaction and offers a bi-dimensional plane to account for the diverse range of effects this may produce over offender decisions. For instance, two gang cliques that belong to the same organization that has a deal with the central government, may face different constraints and incentives associated with their location, group characteristics, and interaction with local authorities. Barrio 18's Las Palmas clique described previously illustrates this point. The underlying assumption is that the wide variety of criminal governance arrangements and the added intricacies introduced by the moderating effects of endogenous and exogenous features, do not fit neatly into predefined categories that describe their effects over offender choices. Future investigations on this topic should examine smaller variations across more permutations along the higher- and lower-order dimensions of the preliminary model to better understand the effects over offender choices.

Similarly, it is important caution about the generalizability of the findings presented here. The proposed model is based in the research conducted in this dissertation, which focuses exclusively on El Salvador. Although aspects associated with crime in other Latin American countries were considered, they were not a central in the development of the preliminary model. More research is needed to extend it to other parts of Latin America and to the Global South.

5.7. Policy Implications

The findings and conclusions presented in this thesis highlight the importance of designing and implementing policies tailored to address the idiosyncrasies and distinct features of Latin American countries associated with the nature, scope, and reach of specific illicit organizations. It is not uncommon, particularly among some international aid organizations, to push for the implementation of northern-centric crime prevention

and control policies without subjecting them to any significant adaptation or tropicalization that accounts for the extreme forms of crime found in Latin American settings and the conditions in which they emerge. The as-is adoption of such policies involves various shortcomings and can even produce significant consequences that go beyond the mere waste of time and resources (Arias, 2019; Arias & Barnes, 2017; Blaustein, 2016). Besides failing to reduce crime, the raw transplantation of policies developed to address very different crime problems under very different circumstances, may worsen the conditions associated with Latin America's most prolific and serious crime issues.

The studies in this thesis show that offender choices are particularly impacted by the specific set of circumstances in which illicit organizations thrive in Central America. This creates a special challenge for crime prevention policies aimed at influencing offender decision-making. Such obstacles have been identified previously. The United States Agency for International Development (USAID) recently assessed the feasibility of implementing focused deterrence in El Salvador. The report concluded that the raw, countrywide adoption of this strategy was not possible due to the distinct dynamics behind violence in the country (USAID, 2018). Rather, it conditioned the adoption of focused deterrence and recommended a targeted approach that required conducting action research so that it could be adapted to the Salvadoran context and to the circumstances in targeted communities (USAID, 2018). The focalized implementation suggested by this report touches on another important aspect also evident in the conclusions reached in this dissertation: even if illicit organizations are extremely hegemonic, the effect of criminal governance regimes over crime dynamics may vary among places and subgroups within the same organization.

In line with this premise, the second policy implication of this thesis is that the effectiveness of programs and interventions aimed at affecting offender decision-making in criminal governance regimes, even those driven largely by hegemonic groups like MS-13 in El Salvador, rests on their ability to identify and flexibility to address the distinct constraints and incentives faced by offenders in each community. Understanding how the distinct conditions generated under criminal governance affect offender choices is needed to improve policy design (Jaitman, 2019). The conclusions reached here suggest that interventions in settings that function under criminal governance must be tailored to local features associated with specific illicit organizations, the relationship of

these groups with other community actors and authorities, and community dynamics and characteristics. These aspects mediate the impact of each policy's desired effect and, therefore, may produce differing outcomes.

It is particularly important to highlight this policy implication because it helps amplify the repeated warnings against blunt, one-size-fits-all *mano dura* (iron fist) approaches, so enticing for Latin American populist politicians, and repeatedly regurgitated in countries like El Salvador. *Mano dura* approaches are rudimentary tough-on-crime policies adopted in Central America, which invariably involve the use of repressive tactics such as the deployment of uniformed police officers to aggressively patrol targeted communities, engaging in armed altercations with gangs, and conducting massive, often warrantless raids that result in arrests that tend not to hold up in court (Cruz, 2013; Rosen, 2021; Wolf, 2017). Besides gaining electoral support by manipulating people's fear (Rosen, 2021), these strategies are based on the rather simplistic assumption that the use of extreme measures will deter people from joining gangs, motivate active gang members to desist, and make it riskier for gangs to engage in crime. However, results show that they lead to quite the opposite. Street gangs subjected to *mano dura* approaches became more cohesive, sophisticated, and influential, growing in numbers, expanding, and establishing partnerships with influential actors (Cruz, 2010; Rosen, 2021; Rosen & Cruz, 2019; Wolf, 2017). Policies aimed at preventing crime in criminal governance settings in the region must move towards a different, more strategic approach that accounts for the intricacies associated with the various elements that shape offender choices under these peculiar circumstances.

Social network analysis holds great potential as a methodological alternative to conduct action research that provides insight to adapt policies to the complex dynamics associated with criminal governance regimes. Within criminology, there is a significant body of research that focuses on the investigation of the nexus between neighbourhoods and crime that underlines the importance of looking at the effect of local social networks (Faust & Tita, 2019). In fact, the analysis of neighborhood social networks has helped map the social fabric of communities and, consequently, distinguish its mediating effects associated with crime and fear of crime (Boessen, Hipp, Butts, Nagle, & Smith, 2017). Social network analysis-based action research has proven to be an effective way to improve the targeting and impact of various types of policies. The success of this approach has been remarkable in health-oriented policies (Chambers, Wilson,

Thompson, & Harden, 2012; Valente, 2010). It has been particularly notable in interventions based on social network action research and aimed at promoting the adoption of preventive behaviours (Jeon & Goodson, 2015; Mulawa et al., 2016; Valente, Watkins, Jato, Van Der Straten, & Tsitsol, 1997). Crime policies aimed at influencing offender choices, such as focused deterrence, have also had great success using this type of approach to adapt to local problems (Braga et al., 2018). The implementation of this type of action research can help policy design and implementation in the complex Latin American settings that function under criminal governance.

The heterogeneity in the conditions produced within criminal governance regimes, even when they involve hegemonic illicit organizations, also opens various fronts for crime analysts to explore. The conceptual model presented here can serve as a visualization tool for planning, developing, and designing targeted policies, programs, strategies, and tactics that address extortive crimes in specific jurisdictions and local circumstances associated with their commission. The constraints and incentives faced by extortionists change from one location to another, which requires analysts to disentangle their spatial dynamics. Understanding where each crime group stands in terms of the constraints and incentives it faces is crucial to generate more effective and targeted approaches. The preliminary model provides a starting point for analyst to dig deeper into extortive crime to better understand its spatial dimension and the diverse circumstances illicit organizations must navigate. Gaining a better comprehension of the geography of these offences and the conditions that shape offender decision-making, can help improve the deployment of resources, as well as the identification of appropriate messages to help potential victims adopt preventive behaviours and deter offenders from perpetrating specific types of extortive offences. Additionally, it can help better understand the functioning of illicit organizations and the different structures they connect, which is crucial to generate more accurate scenarios about the potential effects of interventions and the identification of optimal operational approaches.

5.8. Summary

This dissertation aimed to investigate offender choices in extortion under various types of criminal governance regimes in El Salvador. Although the singularity of the conditions that create the acute kind of criminal governance found in Latin American countries such as El Salvador are well documented, as well as the extreme forms of

crime it generates, their impact over offender decisions had not been explicitly investigated. Each study in this thesis examined offender choices associated with extortion under a different type of criminal governance regime at separate points of El Salvador's recent history. Collectively, the findings obtained in these investigations suggest that the constraints and incentives that shape offender decisions vary across criminal governance arrangements. Specifically, the variations that were identified indicate that restrictions are imposed or lifted depending on the degree of collaboration that exists between illicit organizations and state agents, and mediated by other factors associated with criminal actors and their environment. Based on these conclusions, this thesis proposes a preliminary conceptual model to analyze offender choices in extortion under criminal governance that captures variations across these two dimensions. Despite the insight provided by this model, it is a preliminary approximation to the heterogeneity that exists in terms of the range of criminal governance arrangements and its impact over offender decisions. Further research is needed to explore deeper, examining a wider variety of offences, offenders, settings, and interactions between the two dimensions considered in the model. This thesis is couched in the Southern Criminology movement and, as such, sought to refine our understanding of aspects associated with offender choices in extortion under conditions that vary significantly from those found in the Global North, enhancing the applicability of the rational choice perspective in places like El Salvador.

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Appendix A.

Departments of El Salvador

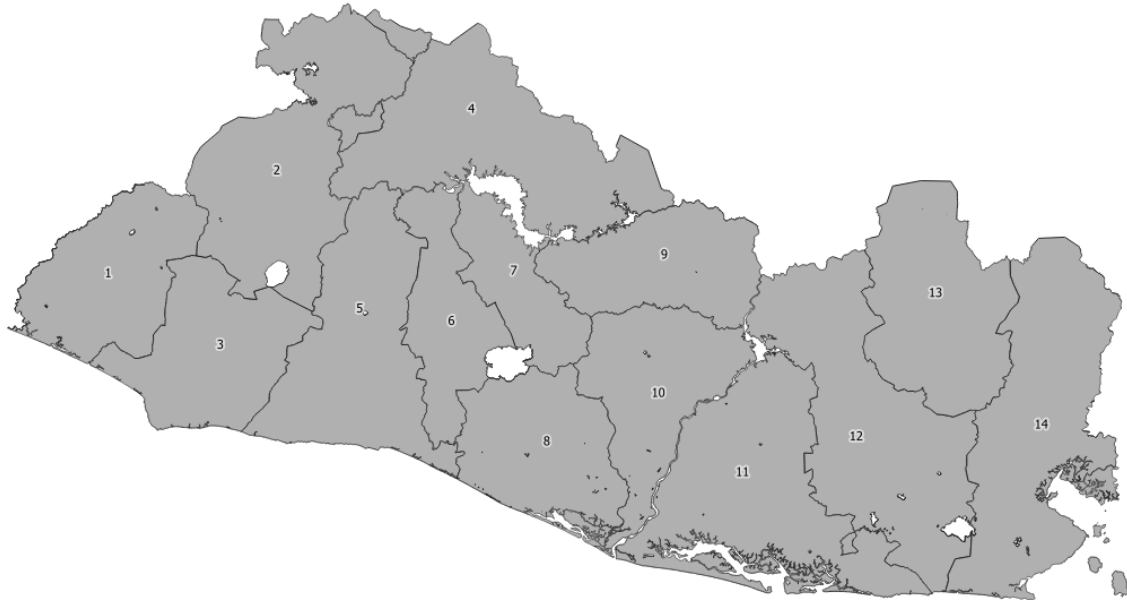


Figure A.1 Departments of El Salvador

Departments 1 to 14: (1) Ahuachapán, (2) Santa Ana, (3) Sonsonate, (4) Chalatenango, (5) La Libertad, (6) San Salvador, (7) Cuscatlán, (8) La Paz, (9) Cabañas, (10) San Vicente, (11) Usulután, (12) San Miguel, (13) Morazán, (14) La Unión

Appendix B.

Municipalities of El Salvador

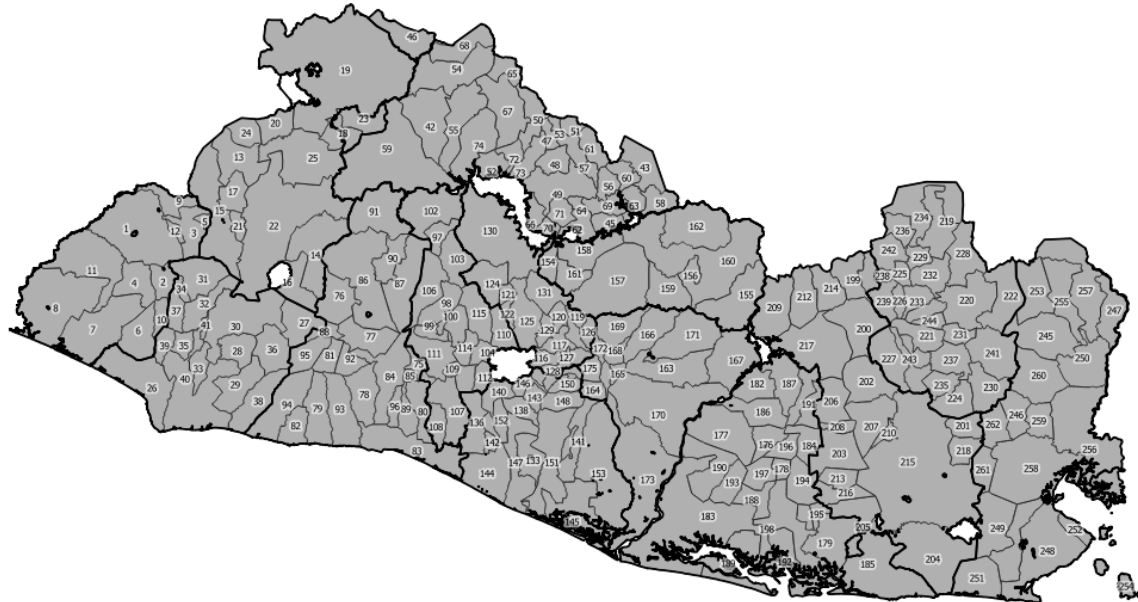


Figure B.1 Municipalities of El Salvador

Municipalities 1 to 100: (1) Ahuachapán, (2) Apaneca, (3) Atiquizaya, (4) Concepción de Ataco, (5) El Refugio, (6) Guaymango, (7) Jujutla, (8) San Francisco Menéndez, (9) San Lorenzo, (10) San Pedro Puxtla, (11) Tacuba, (12) Turín, (13) Caledonia de la Frontera, (14) Coatepeque, (15) Chalchuapa, (16) El Congo, (17) El Porvenir, (18) Masahuat, (19) Metapan, (20) San Antonio Pajonal, (21) San Sebastian Salitrillo, (22) Santa Ana, (23) Santa Rosa Guachipilin, (24) Caledonia de la Frontera, (25) Texistepeque, (26) Acajutla, (27) Armenia, (28) Caluco, (29) Cuisnahuat, (30) Izalco, (31) Juayúa, (32) Nahuizalco, (33) Nahulingo, (34) Salcoatitán, (35) San Antonio del Monte, (36) San Julián, (37) Santa Catarina Masahuat, (38) Santa Isabel Ishuatán, (39) Santo Domingo, (40) Sonsonate, (41) Sonzacate, (42) Agua Caliente, (43) Arcatao, (44) Azacualpa, (45) San José Cancasque, (46) Citalá, (47) Comalapa, (48) Concepción Quezaltepeque, (49) Chalatenango, (50) Dulce Nombre de María, (51) El Carrizal, (52) El Paraíso, (53) La Laguna, (54) La Palma, (55) La Reina, (56) Las Flores, (57) Las Vueltas, (58) Nombre de Jesús, (59) Nueva Concepción, (60) Nueva Trinidad, (61) Ojos de Agua, (62) Potonico, (63) San Antonio de la Cruz, (64) San Antonio Los Ranchos, (65) San Fernando, (66) San Francisco Lempa, (67) San Francisco Morazán, (68) San Ignacio,

(69) San Isidro Labrador, (70) San Luís del Carmen, (71) San Miguel de Mercedes, (72) San Rafael, (73) Santa Rita, (74) Tejutla, (75) Antiguo Cuscatlán, (76) Ciudad Arce, (77) Colón, (78) Comasagua, (79) Chiltuipán, (80) Huizucar, (81) Jayaque, (82) Jicalapa, (83) La Libertad, (84) Santa Tecla, (85) Nuevo Cuscatlán, (86) San Juan Opico, (87) Quetzaltepeque, (88) Sacacoyo, (89) San José Villanueva, (90) San Matías, (91) San Pablo Tacachico, (92) Talnique, (93) Tamanique, (94) Teotepeque, (95) Tepecoyo, (96) Zaragoza, (97) Aguilares, (98) Apopa, (99) Ayutuxtepeque, (100) Cuscatancingo.

Municipalities 101 to 200: (101) Ciudad Delgado, (102) El Paisnal, (103) Guazapa, (104) Ilopango, (105) Mejicanos, (106) Nejapa, (107) Panchimalco, (108) Rosario de Mora, (109) San Marcos, (110) San Martín, (111) San Salvador, (112) Santiago Texacuangos, (113) Santo Tomas, (114) Soyapango, (115) Tonacatepeque, (116) Candelaria, (117) Cojutepeque, (118) El Carmen, (119) El Rosario, (120) Monte San Juan, (121) Oratorio de Concepción, (122) San Bartolomé Perulapía, (123) San Cristóbal, (124) San José Guayabal, (125) San Pedro Perulapán, (126) San Rafael Cedros, (127) San Ramón, (128) Santa Cruz Analquito, (129) Santa Cruz Michapa, (130) Suchitoto, (131) Tenancingo, (132) Cuyultitán, (133) El Rosario, (134) Jerusalén, (135) Mercedes de la Ceiba, (136) Olocuilta, (137) Paraíso de Osorio, (138) San Antonio Masahuat, (139) San Emigdio, (140) San Francisco Chinameca, (141) San Juan Nonualco, (142) San Juan Talpa, (143) San Juan Tepezontes, (144) San Luis Talpa, (145) San Luís de la Herradura, (146) San Miguel Tepezontes, (147) San Pedro Masahuat, (148) San Pedro Nonualco, (149) San Rafael Obrajuelo, (150) Santa María Ostuma, (151) Santiago Nonualco, (152) Tapalhuaca, (153) Zacatecoluca, (154) Cinquera, (155) Dolores, (156) Guacotecti, (157) Ilobasco, (158) Jutiapa, (159) San Isidro, (160) Sensuntepeque, (161) Tejutepeque, (162) Victoria, (163) Apastepeque, (164) Guadalupe, (165) San Cayetano Istepeque, (166) San Esteban Catarina, (167) San Ildefonso, (168) San Lorenzo, (169) San Sebastián, (170) San Vicente, (171) Santa Clara, (172) Santo Domingo, (173) Tecoluca, (174) Tepetitán, (175) Verapaz, (176) Alegría, (177) Berlin, (178) California, (179) Concepcion Batres, (180) El Triunfo, (181) Ereguayquín, (182) Estanzuelas, (183) Jiquilisco, (184) Jucuapa, (185) Jucuarán, (186) Mercedes Umaña, (187) Nueva Granada, (188) Ozatlán, (189) Puerto el Triunfo, (190) San Agustín, (191) San Buenaventura, (192) San Dionisio, (193) San Francisco Javier, (194) Santa Elena, (195) Santa Maria, (196) Santiago de Maria, (197) Tecapán, (198) Usulután, (199) Carolina, (200) Ciudad Barrios

Municipalities 201 to 262: (201) Comacarán, (202) Chapeltique, (203) Chinameca, (204) Chirilagua, (205) El Tránsito, (206) Lolotique, (207) Moncagua, (208) Nueva Guadalupe, (209) Nuevo Edén De San Juan, (210) Quelepa, (211) San Antonio, (212) Sn Gerardo, (213) San Jorge, (214) San Luís de la Reina, (215) San Miguel, (216) San Rafael Oriente, (217) Sessori, (218) Uluazapa, (219) Arambala, (220) Cacaopera, (221) Chilanga, (222) Corinto, (223) Delicias de Concepción, (224) El Divisadero, (225) El Rosario, (226) Gualococti, (227) Guatajiagua, (228) Joateca, (229) Jocoatique, (230) Jocoro, (231) Lolotiquillo, (232) Meanguera, (233) Osicala, (234) Perquín, (235) San Carlos, (236) San Fernando, (237) San Francisco Gotera, (238) San Isidro, (239) San Simón, (240) Sensembra, (241) Sociedad, (242) Torola, (243) Yamabal, (244) Yoloaiquin, (245) Anamorós, (246) Bolívar, (247) Concepción de Oriente, (248) Conchagua, (249) El Carmen, (250) El Sauce, (251) Intipucá, (252) La Unión, (253) Listique, (254) Meanguera del Golfo, (255) Nueva Esparta, (256) Pasaquina, (257) Polorós, (258) San Alejo, (259) San José, (260) Santa Rosa de Lima, (261) Yayantique, (262) Yucuaiquín

Appendix C.

Offender Choices and Graph Abbreviations

Table C.1 Offence-related Tasks, Choices, and Abbreviations

Task	Type of Choice	Choice	Abbreviations
Initial Contact	Contacted person	Owner	icv_owner
		Not owner	icv_notowner
	Contact method	Telephone	icm_phone
		In street	icm_street
		In person	icm_person
		Anonymous letter	icm_anonymous
	Offender identified as	Offender gang member	ico_gmem
		Offender gang associate	ico_gasoc
		Offender crime group associate	ico_cgasoc
		Offender no affiliation	ico_noaff
Offender other		ico_other	
Objective	Give instructions second contact	ico_instruct	
	Start negotiation	ico_negotiate	
Demands	Payment frequency	Single delivery	def_single
		Periodic deliveries	def_periodic
		Sporadic deliveries	def_sporadic
		From single to periodic deliveries	def_singleperiodic
	Payment type	Money	det_money
		Prepaid phone cards	det_phonocard
		Free goods/services	det_gs
		Other demands	det_other
	Completion	Did not make demands	desuc_nodem
		Was not allowed to make demands	desuc_fail
Payments	Payment frequency	Single payment	payf_single
		Periodic payments	payf_periodic
		Sporadic payments	payf_sporadic
		No payments	payf_nopay
		Other frequency	payf_other
	Payment method	Bank deposit	payd_bank
		Pick up	payd_pickup
		Designated place	payd_place
		Electronic transfer	payd_etransfer

Task	Type of Choice	Choice	Abbreviations
Threats	Type	Property crime	thrtyp_pcrim
		Violent crime	thrtyp_vcrim
	Execution	During initial contact	threxe_ic
		During development of extortion	threxe_dvlpmnt
	Target	Against owner or family	thrtar_ownerf
		Against employees or their families	thrtar_employ
		Against company property	thrtar_coprop
		Against others	thrtar_other
		No threats	thr_nothreat
	Pressure tactics	Type	Property crime
Violent crime			prety_vcrim
No pressure tactic			prety_nopressure
Execution		Before initial contact	pree_beforeic
		During development of extortion	pree_dvlpmnt
Target		Against owner or family	preta_ownerf
		Against employees or their families	preta_employf
		Against company property	preta_coprop
Benefits		Type	Protection against own group
	Protection against others		benf_others
	No benefit offered		benf_nobenefit
	Other benefit		benf_other