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The Factors That Shape Organized Crime

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Table of Contents

1. Background.....	7
2. Objectives	11
3. Approach.....	13
4. Methodology and Limits.....	17
5. What is the Structure of Organized Crime?.....	20
6. Factors Accounting for Variations in the Structure of Organized Crime	24
6.1. Formal Organizational Membership and Trust	24
6.2. Personality	27
6.3. Financial and Material Resources	33
6.4. Violence.....	35
6.5. Technological Competence and Private Protection Capacities	39
6.6. Language Skills, Ethnic Composition, and Social Embeddedness	41
6.7. Crime Mobility, Diversity, and Continuity	47
6.8. Upperworld Conditions and Facilitators	50
6.9. Criminogenic Opportunities	53
6.10. Target Priority	56
7. Conclusion	58
8. Recommendations.....	63
Appendix: Catalogue of Factors	66
References.....	76

Executive Summary

Organized crime has received considerable attention among policy-makers and law enforcement agencies in recent decades. This development is, in part, due to the disproportionate harms produced by the illicit activities of criminal organizations and networks, as opposed to individuals and small groups. High-profile wars between rival groups, such as that between the Hells Angels and Rock Machine occurring in Quebec during the 1990s, have also contributed to the growing concern about organized crime. In addition, an increasing volume of violence, especially homicide, in Canada appears to be gang-related.

In response to the increases in organized crime, federal, provincial and territorial governments want to further understand the nature of organized crime, by building upon existing research that would allow decision-makers to implement approaches to combat organized crime that were based on empirical evidence. There continues to be substantial gaps in the empirical data, impeding the development of appropriate policy responses to criminal activities that may be associated with organized crime.

One area that has been of particular interest is the structure of organized crime groups and the factors that contribute to varying structures. The literature reviewed indicated that the structure of organized crime varies in terms of their flexibility and adaptability. Studies of organized crime groups increasingly show that social networks are critical to their understanding and that there are many small, loosely structured networks. The assumption of using social network analysis is that the connections between individuals and groups are crucial determinants of the performance and sustainability of criminal organizations.

The social network approach may also be applied at different levels of analysis, thus offering a more complete understanding and approach for containing organized crime. Such applications have been well documented at the individual level, as criminal career research has demonstrated. In this particular project, the network approach was used to identify those variables that have the greatest impact upon criminal organizations and the linkages between them. The framework for this project complements the recent work by the Australian Federal Police who have established the Target Enforcement Prioritization Index (TEPI). The TEPI is designed along a matrix (or quadrant) framework in which decision makers are able to contemplate the level of risk associated with a target and the level of success that enforcement may have if targeting such a threat. The AFP experience with the TEPI is an initial guide for the present report in that it provides an understanding of how specific features of individuals, groups, and environments may be used to assess the scope and structure of organized crime in a given setting.

The focus on this project was to review the literature pertaining to the structure of criminal organizations and networks in order to ultimately identify the relevant variables that can then be applied to the development of analytical models. The identification of variables affecting the structures of and linkages between organizations will then serve as the basis for future statistical modeling that will enhance the understanding of these

organizations/networks and inform strategies to disrupt them. The information provided in this report will help police and policy-makers to understand how specific features of individuals, groups and environments may help in the assessment of the scope and structure of organized crime in a particular setting.

The analytical report created in this project includes:

- A catalogue of relevant individual, group, and environmental level variables;
- Justification from previous research or theory for the inclusion of each variable, with regard to how and why it is relevant to criminal organizational structures and linkages;
- The levels of measurement applicable to each variable;
- Sources for the data necessary to measure each variable;
- The explanatory power of each variable, given the evidence; and
- A discussion of the overall dataset and the implications for modeling and analytical purposes

The report assesses a number of individual, group/organization, and environmental level variables that may influence how individuals or groups structure their criminal operations in a variety of criminal market and legitimate settings. In as much as possible, we categorize such factors along individual, group, and environmental levels of measurement. In many cases, however, a factor transcends more than one level of analysis, forcing us to address the issue more broadly.

The report focused on the following themes:

- Formal Organizational Membership and Trust
- Personality
- Financial and Material Resources
- Violence
- Technological and Private Protection Capacities
- Language Skills, Ethnic Composition, and Social Embeddedness
- Crime Mobility, Diversity, and Continuity
- Upperworld Conditions and Facilitators
- Criminogenic Opportunities
- Target Priority

Furthermore, an inventory of the variables found to explain the structure of crime in organized crime, criminal market, and criminal network research has been assembled in a separate catalogue (refer to the Appendix). This catalogue is meant to facilitate the work of law-enforcement and policy officials who are in constant search of new avenues of inquiry to a wide array of problems addressed in this report. The catalogue is designed as

an outline of the more elaborate research review. It provides details on the variable's level of measurement, essential coding, impact on the structural features of criminal groups, explanatory power, and possible data sources that may be used to gather factual data for practical purposes.

1. Background

Organized crime has received considerable attention among policy-makers and law enforcement agencies in recent decades. This development is, in part, due to the disproportionate harms produced by the illicit activities of criminal organizations and networks, as opposed to individuals and small groups. High-profile wars between rival groups, such as that between the Hells Angels and Rock Machine occurring in Quebec during the 1990s, have also contributed to the growing concern about organized crime. In addition, an increasing volume of violence, especially homicide, in Canada appears to be gang-related.

Despite the growing concern about organized crime, rigorous scholarship in this area has been seriously lacking. Prior to the 1990s, very little scholarly attention was accorded to the topic of organized crime. Fifteen years ago, Reuter asserted that the organized crime literature as a whole has failed to attract much scholarly attention, stating that it would be difficult to identify as many as half a dozen books that report major research findings. Rogovin and Martens (1994) have added that, "The field of organized crime research, to say it modestly, suffers from 'intellectual atrophy'. Little is written that deserves our attention and that which is written often does not reflect reality...". One major impediment to research and evaluation in this area is the fact that no country routinely collects and publishes data on organized crime activity. For example, much of the evidence pertaining to the efficacy of organized crime control strategies is descriptive and anecdotal. Studies adopting sophisticated research designs are virtually non-existent. There was little evidence-based research to guide law enforcement and intelligence agencies on an operational level.

It was in this context that, in June 2007, the federal, provincial and territorial Ministers responsible for Justice and Public Safety participated in the Ministerial Forum on Organized Crime today. The objective of this meeting was to discuss how to increase coordination and cooperation across the country in the fight against organized crime. In 2008, there was a follow up Ministerial Organized Crime Summit during which it was

determined that priority should be given to building upon existing research in order to better understand the nature of organized crime so as to improve the capacity to combat it. The development of a body of research would allow decision-makers to implement approaches to combating organized crime that were based on empirical evidence. Substantial gaps remain in empirical data, impeding the development of appropriate policy responses to criminal activities that may be associated with organized crime (e.g., fraud, money laundering, intimidation, identity theft, and drug offences).

The National Coordinating Committee on Organized Crime has instituted a research working group charged with the task of implementing a National Research Agenda on Organized Crime. This National Research Agenda has three key components, one of which is directly related to the present project: Nature and Scope of Organized Crime – to conduct research that will generate information on the identification of criminal organizations; their membership; how leaders emerge; recruitment techniques; criminal activities; threat levels; and, joint task force strategies.

Mastrofski and Potter (1986:169) note that organized crime must be conceptualized as a process and business as opposed to a static, centralized structure. They argue that there has been excessive emphasis placed on incapacitating individuals and too little on describing the manner in which organized crime networks operate, launder their revenues, and reinvest their profits. More emphasis is needed on the manner in which criminal networks organize to meet public demand and on the way enforcement efforts influence their illicit activities. Research on these and other process-related issues is still in its infancy.

Biographical and autobiographical accounts of organized crime have been numerous. They describe recruitment strategies, induction ceremonies, alliances, illicit activities, and the enforcement of codes of conduct. Overall, they provide great insights into criminal organizations and rigorous qualitative analyses of these works would be very beneficial. Indeed, past analyses of these biographical accounts have also demonstrated the social network dynamics that underlie criminal careers in illicit markets and

organized crime (Morselli 2005; Morselli 2003, Morselli 2001). However, biographical accounts are often embellished and self-serving (Gabor, 2003). Therefore, other information sources are required to gain a more complete and balanced picture of organizational structures and networks.

Abadinsky (2003) has described the diverse structures of criminal organizations. Amongst the more prominent are the more flexible and adaptable criminal network operations. Today, a growing number of scholars have proposed various analytical techniques to understand how criminal and other organizations function and relate to other groups. One of these techniques is social network analysis. As organized crime involves multiple actors and is often loosely structured, involving many small networks (Morselli 2009; Morselli 2005; van der Hulst 2009; McIllwain 1999; Sparrow 1991), social network analysis is a useful tool for determining the structure of criminal networks. The assumption is that the connections between individuals and groups are crucial determinants of the performance and sustainability of criminal organizations.

Concepts and measures from this field have proven to be extremely useful. Most analyses have applied centrality analyses. Centrality comes in many forms and may be used to assess the level of direct connectivity in a network (degree centrality), localized cohesion (clustering coefficient), intermediary presence (betweenness centrality, structural holes, brokerage leverage), or peripheral connectivity (eigenvector centrality). Once these linkages are known, the vulnerabilities of illicit networks can be understood and strategies to achieve their disruption or containment can be developed. The most notable of these strategies concern the identification and control of legitimate trade actors (e.g., such as lawyers, accountants, airport officials, maritime port workers), who facilitate the criminal actions of the more central participants in the network (Morselli and Giguère 2006), manipulation of efficiency or security levels within the network (Morselli, Giguère, and Petit 2007), the decentralization of a criminal network (Morselli and Petit 2007), the identification and removal of group leaders (Krebs 2001; Carley, Lee, and Krackhardt 2001), and the removal of key brokers (Morselli and Roy 2008).

The social network approach may also be applied at different levels of analysis, thus offering a more complete understanding and approach for containing OC. Such applications have been well documented at the individual level, as criminal career research has demonstrated (Morselli and Royer 2008; Kleemans and de Poot 2008; Morselli, Tremblay, and McCarthy 2006; Steffensmeier and Ulmer 2005; Morselli 2005; Morselli and Tremblay 2004). Case studies of criminal networks have demonstrated the framework's applicability for group or inter-group interactions within illegal markets (Morselli 2009; Malm, Kinney, and Pollard 2008; Zhang 2008; Varese 2006; Natarajan 2006; McGloin 2007; McGloin 2005; Bruinsma and Bernasco 2004; Klerks 2001; Natarajan 2000; Finckenauer and Waring 1998).

Most importantly, the network approach is consistent with formulations of criminal organizations or gangs found in most criminal legislation designed to counter organized crime. The network edge is in the fact that it integrates direct *and indirect* criminal contacts and that it includes *facilitators* and not simply the orchestrators of criminal actions. For example, Article 467.1 of the Canadian *Criminal Code* defines a criminal organization as “a group, however organized, that (a) is composed of three or more persons in or outside Canada; and (b) has as one of its main purposes or main activities the facilitation or commission of one or more serious offences that, if committed, would likely result in the direct or indirect receipt of a material benefit, including a financial benefit, by the group or by any of the persons who constitute the group”. Similar formulations have been drafted in the United States, across European countries, and in United Nations conventions (Morselli and Kazemian 2004; Morselli and Normandeau 2002).

2. Objectives

Efforts to combat organized crime require an understanding of the structures of and linkages between criminal entrepreneurs, groups, and organizations. Research on criminal networks has focused primarily on describing such structural features, particularly in terms of centralization. The primary aim of this project is to identify those factors that have the greatest impact on the structure of organized crime. By structure, we refer to the scope and form of criminal groups and the more general illegal market setting. Structure, in both scope and form, is indicated by a group or general market's centralization. Centralized settings are more likely to be formed around a large, expanding group or organization. Decentralized settings are more competitive and more likely to be composed of many small groups, with none dominating to a significant level. The resulting data can then be used for analytical modeling purposes.

A review of the literature pertaining to the structure of criminal organizations and networks will identify the relevant variables that can then be applied to the development of analytical models. The identification of variables affecting the structures of and linkages between organizations will then serve as the basis for future statistical modeling that will enhance the understanding of these organizations/networks and inform strategies to disrupt them.

The report prepared for this project will include:

- A catalogue of relevant individual, group, and environmental level variables (see Appendix);
- Justification from previous research or theory for the inclusion of each variable, with regard to how and why it is relevant to structures and linkages in organized crime settings;
- The levels of measurement applicable to each variable;
- Sources for the data necessary to measure each variable;
- The explanatory power of each variable, given the evidence;

- A discussion of the overall dataset and the implications for modeling and analytical purposes; and
- Recommendations for law-enforcement officials and policy makers.

3. Approach

The approach taken throughout the following report is distinct from the Sleipnir model that has been a prominent organizational tool in Canadian law-enforcement, and particularly within the RCMP. The first distinction between the present framework and the Sleipnir model is the source of parameters. The parameters used in the Sleipnir model were generated through a Delphi survey that was conducted with experts from police, intelligence, and scholarly settings. The factors that are generated in the present framework are based on the results from research on organized crime, criminal markets, and criminal networks over the past four decades.

The second distinction concerns the aim of the framework. Whereas the Sleipnir approach is concerned with assessing threats and focuses exclusively on criminal groups, the present approach introduces a series of environmental, group, and individual level parameters that have been proven (to varying degrees) to influence the structure of organized crime. The present framework adds to the current repertoire of law-enforcement, intelligence, and policy tools that address organized crime by offering a wider outlook of the problem at hand. Thus, while the Sleipnir model points to which specific criminal groups should be addressed at any point in time, the present framework emphasizes the factors that should be considered for a general assessment of organized crime and to arrive at a more discrete manipulation of organized crime. For example, law-enforcement officials may prefer to confront a more decentralized (or competitive) criminal market that is made up of small and transient groups.

Certain factors are key indicators of such a structure. Establishing the state of such factors and manipulating them in the direction that will decentralize the organized crime setting becomes feasible. When the setting is decentralized, no criminal group emerges as more prominent (or threatening) and law-enforcement could control with random checks. The inverse scenario takes place if and when law-enforcement prefers to confront a more centralized setting in which one or two criminal groups gain an upper hand over their competitors. Indeed, past research has demonstrated that the intensity and aim of law-

enforcement targeting is influential in establishing which groups get ahead in a criminal market. Centralizing a market is ‘simply’ a matter of targeting one group much less than others.

The advantage in such a scenario is that once the market is centralized, law-enforcement could concentrate their targeting resources on the central group(s). This general manipulation is more strategic than the Sleipnir model which suggests targeting one threatening group at a time. Indeed, law-enforcement officials are key actors in shaping organized crime and threat-assessment models general assume that the main group is central in the market. This is not necessarily the case in that a group may be ranked as the greatest threat within a competitive or decentralized market. Such a group is essentially central to the targeting strategy, but not to the criminal market itself.

While distinct from the Sleipnir model, this approach is consistent with a recent target evaluation program developed by the Australian Federal Police (AFP) (see Hawley 2009 for a recent outline of this program). The National Target Evaluation (NTE) grew out of Australian law-enforcement officials and policy makers’ concern with the continued impact of organized crime on communities. To address such concerns, an innovative organized crime framework was implemented for targeting and harm-reduction purposes. Following the main findings from past research and years of experiences targeting offenders in a variety of settings, the AFP created a facilitation model to investigate organized crime with concise and reliable prioritization, clear target assessments, effective operational planning, recorded decision-making, and performance monitoring and measures. This model extends from findings from past research that demonstrates that organized crime groups are not typically hierarchical, but fluid in structure and more likely composed of resource sharing processes in which co-participants facilitate each others’ actions. The system which emerged from this particular agenda is known as the Target Enforcement Prioritization Index (TEPI).

The TEPI is designed along a matrix (or quadrant) framework in which decision makers are able to contemplate the level of risk associated with a target and the level of success

that enforcement may have if targeting such a threat. The optimal interplay between these two features is represented when a high likelihood of success is assessed for high risk targets (in such cases, the AFP is likely to take on the target). The least optimal interplay emerges when a low likelihood of success is assessed for high-risk targets (in such cases, the AFP lets the target linger). Mid-level scenarios also emerge in cases of low-success assessments for high-risk targets (the AFP is likely to look for assistance in such cases) and when a high likelihood of success is determined for low-risk targets (the AFP will act pending on the presence of high-risk priorities).

The AFP experience with the TEPI is an initial guide for the present report in that it provides an understanding of how specific features of individuals, groups and environments may be used to assess the scope and structure of organized crime in a given setting. While many of the factors that we identify are already developed and operationalized by the AFP, several other components were identified throughout the research review and will be added to create a wider inventory of factors that help us understand and address the structural features of organized crime and criminal networks.

In terms of the structure of organized crime, we refer to the diverse forms of groups, organizations, and market structures that may be identified along a continuum. At one end (the least organized), we find the small, ephemeral criminal groups that Reuter (1983) identified in his seminal thesis of bookmaking, numbers, and loansharking markets in 1970s New York City. Such groups are generally formed for opportunistic incentives and are typically action-based. Van Duyne and Levi (2005) referred to them as criminal trading networks and compared them to noncriminal trade groups that organize on an *ad hoc* basis. Markets comprised of such groups are typically decentralized and competitive. At the other extreme we find the more reputed and formal organizations, such as the traditional hierarchical organizations (Cosa Nostra and 'Ndrangheta), that are based on common cultural factors, family ties, or other binding organizational traits. According to Van Duyne and Levi, there is no contradiction between the illegal network, with its short-term relationships and shifting coalitions, and the existence of continuous enterprises as formal organizational entities.

The presence of small action-oriented groups does not exclude the existence of large organizations in criminal networks. Often the two extremes of the continuum are intertwined, as would be the case in illegal drug distribution settings in which freelance distributors remain prominent at the retail level, while socially-bonded businesses are often identified at the wholesale level and higher trafficking levels. As this report will demonstrate, a clear understanding of the range of diverse factors at various levels of analyses does offer the necessary informative stance for assessing the structure of organized crime across such a continuum.

4. Methodology and Limits

Factors will be assessed at the individual, group/organization, or environmental levels. By factor, we refer to an independent phenomenon that has an effect or influence on how individuals or groups structure their criminal operations in a variety of criminal market and legitimate settings. In some cases, a factor transcends more than one level of analysis, forcing us to address the issue more broadly.

An advantage of addressing each factor at different levels is that while individual-level factors have been the traditional measure of choice for general criminological areas, organized crime research and policy has largely ignored such parameters. At the individual level, most research is concerned with arriving at an understanding of the performance measures, motivational aspects, personal organizational parameters, and general resources relating to individual offenders that are likely participants in activities associated with organized crime.

An inventory of all factors found to explain the structure of crime in organized crime, criminal market, and criminal network research has been assembled in a separate catalogue (see Appendix). This catalogue is meant to facilitate the work of law-enforcement and policy officials who are in constant search of new avenues of inquiry to a wide array of problems addressed in this report. The catalogue is designed as an outline of the more elaborate research review. It provides details on the factor's level of measurement, coding, impact on the structural features of offenders or criminal groups, its explanatory power, and possible data sources that may be used to gather factual data for practical purposes.

While this report does have practical implications, the research review and the catalogue that is drawn from it must be approached with some caveats. Overall, the report is an initial attempt to create a bridge between scholarly research and law-enforcement or policy settings. The intention is not simply to inform officials in practical settings, but to

explicitly guide their actions when approaching organized crime. In creating this bridge, certain limits of the report must be emphasized.

First, there are limits in the evidence used to support the main propositions stated in the vast array of studies available in past research. Most research in the area of organized crime would not pass the standards of strict evidence-based research evaluations (e.g., the Maryland Scale, Campbell Collaboration). Such evaluations are designed for experimental research, which are generally not the norm in organized crime research. Indeed, research on organized crime is rarely based on representative samples—this would be difficult since little knowledge is available in regard to the size of the organized crime population. Randomized experiments are therefore not possible. Research in this area is often based on law-enforcement data, informant testimonies, or anecdotal evidence. In short, researchers in the area of organized crime must be commended for their creativity and simply making do in an area which is typically inaccessible, however, the standards of systematic high-level research have yet to be met.

Second, certain factors have been addressed more thoroughly than others in past research. Environmental factors, such as supply and demand effects or law-enforcement targeting have been addressed consistently across a wide array of research. Individual-level factors, such as the personality features or financial resources of organized crime participants, are minimally researched. The little research that has been conducted in such areas, however, has demonstrated the value of gathering knowledge on these factors. The challenge, here, concerns how such data may be gathered in a valid and systematic way for practical purposes.

Third, how factors influence organized crime is often the subject of debate and consensus amongst past researchers is present for only a small set of variables. Few would argue against statements that increased law-enforcement decentralizes organized crime or that collusive arrangements in legitimate sectors are an indication of an increasingly centralized organized crime phenomenon. For other statements concerning the presence or extent of violence, the multi-ethnic composition of criminal networks, or an

individual's propensity for violence, the effects on structure are still the subject of debate and require further empirical testing.

Fourth, the report is designed to identify the key factors that influence the structure of organized crime. For present purposes, no attempt was made to test the impact of such factors with any empirical data. This is beyond the scope of the present mandate and we hope that an opportunity to work directly with a range of data sources from scholarly settings and law-enforcement and intelligence agencies would present itself in the near future. It is only after the impact of each factor is accurately operationalized, assessed, and fine-tuned with data testing that the objectives of the present report will be completely met.

Finally, much research is tainted by stereotypical and generally invalid assumptions of organized crime. This is particularly the case in the area of formal organizational presence and violence, where it is typically assumed that the two features are evident fabrics of organized crime and rarely validated with any evidence. Such perceptions often taint the visions of law-enforcement and policy officials. Because it is our aim to guide actors in such settings, we ask that the findings and recommendations stated in this report be taken with an open view of the problem at hand.

5. What is the Structure of Organized Crime?

Research on organized crime has swayed considerably toward a criminal network approach over the past two decades, with more systematic studies emerging over the past ten years. Studies on the structure and form of criminal networks that are in place to operate in a criminal market for a given time span may be divided along those that seek insights into the personal network qualifications of offenders and groups (an egocentric analysis, in social network terms) and those that seek a more general assessment of criminal networks beyond any given actor (a sociometric analysis, in social network terms).

Across such research, key patterns have been identified. The most important raises the importance of the brokerage position in organized crime and more general criminal networks. Indeed, individuals and groups possessing brokerage-like networks are key participants in organized crime and general criminal enterprise settings. Morselli (2005) found this in case studies of lengthy criminal careers. Morselli and Tremblay (2004) found the brokerage benefit in a survey of more than 250 inmates. Morselli (2009) found similar brokerage patterns in case studies of investigative operations against criminal networks. That brokers are key in criminal networks and organized crime and that maintaining such a position is linked with the personality problems identified by Kalish and Robins (2006) and earlier research on brokers (see Boissevain 1974).

The brokerage component is also related to the level of competition in a criminal setting. Past research establishes that criminal markets are hostile settings in that they demand intense competition from participants and result in important economic disparities. Criminal network research has helped us understand the factors accounting for an offender's status as *haves* or *have-nots*. In the Morselli and Tremblay (2004) research, the more successful offenders were also the most personally organized. Such offenders were not part of fixed and easily identifiable organizations. They were, instead, higher earners who operated autonomously, and who were more likely to have more contacts than lower earners in the sample.

Most importantly, these personal criminal networks were more likely to follow brokerage patterns. This brokerage element is arguably the most important factor to emerge from key players and relative success in criminal networks. Findings pointing to the benefits of brokerage have emerged in a variety of criminal settings. Morselli and Tremblay (2004) found a straightforward brokerage effect on criminal earnings (higher brokerage, higher criminal earnings). This was particularly true for offenders who participated in criminal markets. Morselli (2005) conducted two case studies on the evolution of individual criminal networks across lengthy careers in international cannabis smuggling and Cosa Nostra racketeering and found that brokerage was highest during the peak levels of success in each criminal career. Although not as explicitly focused on the brokerage effect, past research has recognized that such a networking pattern was an important feature in organized crime. Coles (2001), Klerks (2001), and Williams (1998) reviewed past research on brokerage and concluded that the presence of multiple brokers in a criminal network is more likely in groups that indicate a higher degree of sophistication or organization. The value of brokers has also been a consistent finding in studies of illegal drug trafficking (Desroches, 2005; Natarajan, 2006; Pearson and Hobbs, 2001; Zaitch, 2002), human smuggling (Kleemans and van de Bunt, 2003; Zhang and Chin, 2002), ringing networks (Bruinsma and Bernasco, 2004), and general criminal enterprise settings (Finckenauer and Waring, 1998; Haller, 1990).

The brokerage component highlights the importance of flexibility in organized crime. Loose structures and flexibility have been observed and argued from the first serious research endeavours on organized crime. In his classic ethnographic study, Ianni (1972) engaged in participant observation of an organized crime group for two years. Such groups had no structure apart from their functioning or of their personnel at a given time. A similar conclusion was drawn by Albin (1971) in his groundbreaking study of crime groups in the US and Italy. His conclusion was that individuals involved in organized crime did not belong to an organization as such. Rather, a particular activity dictated relationships at a given time. To him, these groups were loosely structured relationships that facilitated the pursuit of the goals sought by each participant.

Even in more recent research, flexibility has been the norm. Ruggiero and Khan (2006) emphasis on improvisation reflects this and they account for such a pattern because many criminal networks were comprised of inexperienced dealers who found themselves suddenly operating in the market. In Pearson and Hobbs (2001) research with convicted drug traffickers and law enforcement representatives, flexible networks were the norm. The authors argued that criminal networks involved in middle market drug distribution are typically small, with a correspondingly small number of suppliers and customers. The hierarchical and tightly-knit organizational model was not supported in their research. Instead, they found criminal groups to operate more as partnerships and around independent traders or brokers. Similar conclusions were raised by Icduygu and Toktas (2002), in their research on human smuggling in the Middle East and Turkey. Even in street gang research, the presence of formal organizational unities have been displaced in favour of more flexible group configurations that revolve around a handful of cut-points (or brokers) in a particular geographical location (McGloin 2005). Such dealing is highly localized and is organized in a loosely organized fashion resembling a network rather than a criminal organization.

Some may argue that such loosely structured networks are found in areas and markets that are more competitive and comprised of small and ephemeral action groups. But Kenney's (2007) research on the Colombian cocaine trade tells us that flexibility is the norm even when we focus on the more notorious (or stereotypical) criminal organizations or cartels. Kenney's fieldwork with law-enforcement, intelligence officials, and former drug traffickers found that, contrary to the popular view, cocaine trafficking in Colombia has never been dominated by one or more criminal organisations exerting monopoly control. Instead, the trade is more fluid and diffused. Cocaine trafficking in Colombia, in short, was flat and not vertical. This pattern is typical of criminal markets and organized crime in general.

In short, research on the structure of organized crime has demonstrated that we cannot assume the presence of criminal organizations that centralize the actions of participants in

criminal markets. Instead, across different periods of time and a wide range of cultural areas, researchers have made structure the direct focus of their work and have become more concerned with how and why which criminal operations are centralized to varying extents. The following sections in this report cover the many factors that have been identified as having an impact on organized crime. The principal factors have been drawn from this research review and catalogued in a separate index for more practical purposes. This catalogue is presented in the report's Appendix.

6. Factors Accounting for Variations in the Structure of Organized Crime

Our review is not restricted to publications from recent years. Many of the factors that are relevant for understanding the structure of organized crime were raised over three decades ago and have remained somewhat dormant since. Most factors, however, have been consistently raised as key influences across this same period. This review therefore covers a vast area of research that has addressed the structural features of organized crime from diverse angles and in consistency with what is arguably the most accepted definition of organized crime: the supply of illegal goods and services or the illegal supply of legitimate goods and services. The sections are organized in accordance with the main variable sets that emerge from past research. The factors of organized crime are identified and discussed within each of these sections. In as much as possible, hypotheses are formulated to establish how such factors may influence the structure of organized crime.

6.1. Formal Organizational Membership and Trust

Probably one of the more common-sense factors that law-enforcement and policy makers look to when thinking in terms of the structure of organized crime is the formal organizational status of participants in criminal networks or markets. Recent intelligence tools, such as the AFP index, do not explicitly consider a factor such as formal organization presence or membership. The AFP does, however, address network solidarity and trust, which is defined as the extent to which individuals and groups interact primarily through strong relationships that are difficultly accessed by outsiders. Like formal organizational status, trust may be approached at the group level in that it may reflect an individual's experiences within a wider milieu and also the interactions that are the basis of the formation of groups. If social relationships in an organized crime setting are represented by a high level of trust-based and closed groups, that setting will tend to be comprised of formal organizations that operate primarily within their respective pool of members and associates. Such a closed setting would indicate a neatly organized and compartmentalized organized crime setting. If, at the other extreme, trust is a luxury which is generally displaced for reasons of effectiveness and efficiency to

execute a criminal operation, groups would tend to be more volatile and transient, with overlaps occurring on a consistent basis for opportunistic reasons. This latter scenario reflects a more competitive and flexible organized crime setting.

Past research tells us that formal membership in a criminal organization is one of the more stereotypical factors associated to organized crime. Too often, such a qualification is more the stuff of myth than of reality. The exaggerated use of this qualification does not dismiss that many criminal market participants may be official members in a structured gang or criminal organization. However, past research has demonstrated that sophisticated and formidable organizations do not thrive in settings in which law-enforcement controls keep criminal markets and groups in systematic check, thus, making them rare entities (Reuter 1983). Others have questioned whether formal membership influences the structure of crime in any way and have found that participants, regardless of their status in a formal organization, are more likely to structure their criminal ventures on an ad hoc basis and in accordance with the pool of co-offenders that are available at any given moment (Morselli 2009; Felson 2006).

In his classic ethnographic study, Ianni (1972) engaged in participant observation of a crime family for two years. He found that such groups had no structure apart from their functioning or of their personnel at a given time. A similar conclusion was drawn by Albin (1971) in his study of crime groups in the US and Italy. His conclusion was that individuals involved in organized crime did not belong to an organization as such. Rather, a particular activity dictated relationships at a given time. To him, these groups were loosely structured relationships that facilitated the pursuit of the goals sought by each participant.

Even the Sicilian Cosa Nostra, the most reputed and the most researched of criminal organizations, has been assessed beyond the formal organizational framework. According to Paoli (2003), La Cosa Nostra does not qualify as a legal rational bureaucracy. Such a stance is radically different from previous researchers of this organization (e.g., Cressey 1969). Rather, she argues that this organization imposes a status contract on its members. This means that when the novice is initiated (through a variety of rituals and symbols), he

takes on a whole new identity as a “man of honour” and agrees to subordinate all previous allegiances to that of the mafia family. Mafia memberships are brotherhoods with expectations of mutual aid without limits. Mafia membership is characterized by a high level of secrecy about the group, its activities and the membership. With more state pressure in recent years, members have even reduced social functions in order to preserve secrecy and to fend off the pressure of law enforcement agencies. This development has undermined group solidarity and led to more people testifying against the organization. A Mafia family may still have the same hierarchical structure it did over a century ago, but this structure does not serve it well in countering law enforcement decapitation strategies and in adapting to new opportunities in the fluid criminal marketplace.

While formal membership may be the factor that common-sense would dictate for explaining loyalty and continued cooperation between participants in a criminal market, more elusive factors such as trust and group solidarity are more relevant when assessing why individuals cooperate in a given criminal operation and why groups form and evolve. Van Duyne (2000) argues that trust must be approached as critical to relationships not governed by a formal, legal regulatory system. He asserts that successful crime-enterprises are not only successful at marketing but in “human engineering”, including human risk assessment. Faced with the ever-present risk of denunciation or identification due to criminal contacts, Van Duyne simplifies the decision to cooperate in crime as follows: “I only trade with whom I know and trust”.

Von Lampe and Johansen (2004) add that the consequences of disloyal behaviour are likely to be far more serious than those involved in legitimate business dealings. Trust reduces the uncertainty regarding the behaviour of potential accomplices to a tolerable level and thereby stimulates the willingness to co-offend. This may be enhanced by kinship and ethnic ties (see section below), giving members of close knit communities a competitive advantage in the crime business. Von Lampe and Johansen’s analyses of several criminal markets in Europe (e.g., cigarette smuggling in Germany) also indicate that criminal relations can exist without a basis of trust and even in the presence of outright mistrust. More risk-conscious actors will take measures to safeguard against

disloyal behaviour by reducing the likelihood of betrayal, increasing the costs of betrayal (e.g., threats of violence), or trying to build trust. For example, one can reduce the possibility of betrayal by adopting procedures such as testing and counting merchandise before a transaction is made. The use of anonymity vis-à-vis recruits and disguising the true nature of the activity until the last moment are other safeguards that can be employed as protections in relation to breaches of trust.

In sum, if formal organizations are prominent, an organized crime setting is likely to be centralized around such an organization, which is also likely to be larger and expansive than its competitors. This scenario is highly contingent on other factors (e.g., impunity, lax law-enforcement) and is therefore not likely in many settings in which organized crime is controlled systematically. The alternative to a formal organizational setting is one that is more decentralized and composed of small groups. Rather than relying on loyal members and a formal behavioural code, such groups base their short-term existence on trust and mutual interests.

6.2. Personality

Personality features are amongst the more difficult indicators to gather information on in organized crime research. The AFP's description for this individual trait is limited to a focus on personal ambitions or drives to get ahead in a criminal organization or general organized crime setting. Past work in this area generally relies on biographical appraisals. For example, Sammy Gravano, an underboss within the Gambino crime family, until he became an informant in the trial of the family's boss, might be described as a psychopath as he appeared to demonstrate little remorse or conscience. After killing a close friend on the orders of the Columbo family, he said: "Am I supposed to feel remorse? If anything, I felt good. Like high. Like powerful, maybe even superhuman. It's not that I was happy or proud of myself... It's just that killing came so easy for me" (Maas, 1997:52).

Many would argue that this type of individual is likely to be an essential part of a criminal group that orders killings as a utilitarian way of meeting its goals and of

commanding respect. The few clinical studies of organized crime figures makes it difficult to conclude that people such as Gravano are devoid of conscience or simply displaying fidelity to an alternative set of norms that require the carrying out of orders in a hierarchical criminal organization, such as a Cosa Nostra Family. Such biographical accounts also do not indicate whether the majority of individuals within such a crime group would be prepared to kill and to express as little remorse as Gravano.

Depersonalizing the victim (or eventual victim) is also a common finding extending from studies on the military conditioning of soldiers. Marshall (1961) maintained that one way of teaching novice soldiers how to kill the enemy during times of battle was by having them practice on humanlike targets during training (so called pop-up marksmanship). Grossman (1995) observed similar tactics in his own work. The advantage of such conditioning is that soldiers become desensitized toward their targets in real moments of battle. While rare, such personality shifts are also found in research on organized crime. Levi (1981) conducted a study on such cognitive factors in hit-men. A major characteristic of a hit-man is his capacity to deny the victim's existence by paying no attention to his personal features. The victim is seen as a simple target. The responsibility of the murder lies in the person who hired the hit-man.

Finally, Levi mentioned that the heart of a hit-man is cold. Although he suggests that such coldness is a result of a learning process in which the hit-man comes to neutralize the act, we may have some doubt as to the capacity of every individual to achieve such a condition. In his analysis of another type of professional murderer (the type executing the act for an organization), Levi suggested that the crime may be conceived as a fair retaliation against the organization's enemy. The killing is thus an act of loyalty to the organization that is also justified by an order from a superior player. Although such a murder requires some form of coldness, other conditions may be involved in the process favouring such an act. While the context to execute a transactional murder is available to several, few will actually accept the offer and execute the act. We suggest that some personality characteristics may favour learning processes involved in becoming someone who is ready and able to kill for another.

There are also personality measures that assess individual predispositions beyond the capacity for violence. Kalish and Robins (2006) examined the impact of individual psychological differences on network structures. They propose a number of hypotheses about how individual differences might predispose individuals to structure their social environment by seeking network closure or by sustaining structural holes. Introducing a new triad census method to examine personal networks, the authors correlated the census results with several psychological instruments for 125 egocentric networks.

Psychological predispositions explained a significant proportion of the variance with regard to the type of networks in which individuals were involved. Their results indicate that people who view themselves as vulnerable to external forces tend to inhabit closed networks of weak connections. Conversely, those seeking to position themselves as brokers and keep their strong tie partners apart and bridge structural holes, tend to be individualists and overly autonomous. They also tend to have higher levels of neuroticism. Finally, people with strong network closure and “weak” structural holes tend to see themselves and others in terms of group memberships. They also tend to be more extraverted and less individualistic.

The relevance of Kalish and Robins for organized crime research is linked to the importance of brokers in criminal markets. Van Duyne (2000) supports the idea that narcissism and a calculating nature are the hallmarks of some organized crime figures. He asserts that a critical skill for any crime-entrepreneur is his information management skills. This management is important for tactical operations. Also, the crime entrepreneur engages in a systematic planning of crimes for profit, not as a once-only project but as an on-going business during which law enforcement interventions have to be weighed against the profits derived from remaining in business. Much of this assessment of the potential to beat the system is based on sheer false optimism.

Also, Bovenkerk (2000) reviewed numerous biographies to explore how organized crime figures view themselves. He found that the main characters view themselves as superior beings and who display many of the characteristics of a narcissistic personality; for

example, the attitude of omnipotence and self-assurance, a feeling that the rules of society do not apply to them and that they are above the responsibilities of shared living. Finally, individuals possessing brokerage-like networks have been found to be key participants in organized crime and general criminal enterprise settings (Morselli and Tremblay 2004; Morselli 2005; Morselli 2009) and the capacity for an individual to operate as a strategic vector between contacts who are not connected to each other requires many of the personality traits identified in previous research (neuroticism, self-efficacy, narcissism).

Additional research on personality factors in organized crime research can draw from profiling frameworks. Snook et al. (2008) assessed the validity of the most predominant form of offender profiling system. Developed by the FBI, this system places crime scenes and offenders into a dichotomy of organized or disorganized (Ressler et al., 1986). The assumption underlying this typology is that offences can be categorized as organized (e.g., well planned) or disorganized (e.g., spontaneous) based on the behaviours present at a crime scene and that offenders can be categorized as organized (e.g., high functioning) or disorganized (e.g., low functioning) based on the background of the offender. These profilers believe that there is a link between the two (i.e., organized crimes are committed by high functioning individuals and disorganized crimes are committed by low functioning individuals).

As many crimes committed by criminal organizations involve some planning, one might infer from this typology that members of these organizations would predominantly be high functioning persons. Canter's (2003) work has lent more credibility to offender profiling through his empirically-based work that relies both on the offender's methods and their choice of locations for crime. In 1986, police forces across the south of England were struggling to find the *Railway Killer* after murdering a victim for the first time. Canter was invited to construct England's first offender profile. When the suspect was later arrested, charged and convicted, it turned out 13 of Canter's 17 proclamations about the perpetrator were accurate. Profiling became commonplace in large-scale police searches afterwards. Apart from developing the field of geographic profiling, Canter

undertakes in-depth studies of murderers and the spider webs they construct to lure and destroy their victims.

Bovenkerk (2000) presents a highly critical discussion of the quest to develop a profile of organized crime figures. He asks whether there was something distinct in the psychological make-up of crime bosses as diverse as mafia capo Toto Riina in Sicily, a Yakuza kingpin, and Medellin cartel leader Pablo Escobar in Medellin, Colombia. He notes that there are few clinical studies of organized criminals. Reports drafted by clinical psychiatrists about distinct criminal categories are typically about murderers, fraudsters and shoplifters, but not on gangsters. Bovenkerk also comments on Gottfredson and Hirschi's self-control theory, as they argue that this general theory of crime applies to all categories of crime, including organized crime. In their opinion, self-control explains an individual's ability to forgo short-term gratification and, hence, crime in favour of the long term. Self-control is an individual characteristic acquired at a young age as a result of loving parents and other educators setting limits for a child's behaviour by serving a corrective function. If this self-control is not sufficiently developed, there might be a lifelong tendency towards impulsiveness, low frustration tolerance, egocentrism and insensitivity to the suffering of others.

Bovenkerk argues against the applicability of this theory to organized crime by pointing out that the top mafiosi in Sicily and the United States are in their fifties, and that their ascendance to the top was a challenging and long-term struggle. The work they do requires ample knowledge of international trade and financial markets. While Bovenkerk applies the theory of low self-control in the manner intended by Gottfredson and Hirschi, evidence contests such a transposition when it comes to profit-driven crime. In a survey of over 200 inmates, Morselli and Tremblay (2004) refuted low-self control's applicability to the criminal enterprise setting. Contrary to inhibited performance levels, they found that offenders who reported lower levels of self control reported higher criminal earnings than their counterparts. Low self-control, in short, must be approached as a measure of an individual's taste for risk and not a measure of one's lack of control.

The principal challenge with gathering data on the personality of participants in organized crime is arriving at a valid clinical diagnosis. Such tests are typically conducted when a participant is incarcerated, but that would only be useful for a segment of the population. Collecting data on the network features of such individuals is even more challenging. Kalish and Robins research was conducted with non-offenders. Morselli and Tremblay (2004) succeeded in gathering such data, but only for a small sample of inmates. It is thus difficult to establish the various avenues that such data may be accessed and coded systematically. At the moment, we can hypothesize on various relationships that personality features will have with the structural aspects of organized crime, but further work is required to establish how such hypotheses may be with valid data.

Of the personality features that were discussed, we know that an individual's ability to depersonalize a victim is a key asset that may be sought after by a number of participants in organized crime and is likely the basis of what a reputation for violence is made of. An increase in the number of individuals who possess such an outlook on victims carries us into the military-like settings that are at the core of research in this area and would thus suggest the potential for a centralized setting. Kalish and Robins' findings on the manipulative and highly egoistic behaviour of brokers reflect the type of participant that would prosper in a more decentralized setting. Brokers benefit, above all, by the opportunities left vacant between disconnected individuals or groups in a given setting—such opportunities are more prominent in a decentralized environment. Other personality features are also expected to be more prominent in a decentralized setting. Another feature that is likely to be important for individuals participating in organized crime is the sheer taste for risk, which is appropriately captured by low-self control. Counter-intuitively to the original theory, such a predisposition is not likely to inhibit the performances of individuals. On the contrary, and similarly to the manipulative behaviour that is associated with the broker way, low-self control (or a taste for risk) is amongst the key personality features that is necessary to persist in a decentralized setting for an extended period.

6.3. Financial and Material Resources

Another set of factors that should be given greater focus when thinking in terms of the structural features of organized crime concern the variety of indications of an participant's financial and material resources in a given setting. This factor is described by the AFP as an individual's ability to obtain or devote resources toward a criminal end. The main reason for including such a target assessment factor is based on the evident importance of money in organized crime. Aside from allowing one to obtain an illegal commodity or service, financial resources are also necessary for paying other participants for specific tasks or for creating levels of insulation between oneself and the actions being targeted.

Research on criminal earnings is rarely associated with organized crime research. However, the findings from this segment do provide us with some individual-level factors that explain how offenders at different performance levels organize themselves in various ways. At first, individual criminal earnings appear to be products of the structure of groups in illegal markets and organized crime. Common sense would maintain that higher-ranked individuals would earn more than lower-ranked individuals, thus constituting the presence of a tightly-knit and ordered organized crime setting. One of the more original studies in this area came to be after Sudhir Venkatesh was given an accounting book that was kept by a Chicago street gang to keep track of the revenues extending from illegal drug market activities. Levitt and Venkatesh (2000) analyzed the distribution of profits within the gang and found an extremely stratified setting. The street gang under observation was assumed to be hierarchically-based and the allocation of drug market revenues fell heavily into the hands of the gang leader, who gained roughly ten to twenty times higher wages than the average foot soldier in the gang (p.774). Levitt and Venkatesh do note that such skewness is less striking than that found in most noncriminal corporate settings. However, one of their main observations concerned the foot soldiers, which had earnings that were lower than minimum wage earners in the legitimate economy.

Levitt and Venkatesh's findings become more complex when assessing criminal earnings in freelance settings. In such settings, individual earnings are a function of risk and an indication that the organized crime setting is more decentralized and shaped by small short-term ventures. For example, the findings from the Chicago gang study are different than those found in previous research on illegal drug dealings earnings conducted by Reuter, MacCoun, and Murphy (1990) and Fagan (1990). In such research, financial resources were found to be a direct product of the level of risk that drug market participants were ready to take. Earning distributions in such settings were less skewed. Levitt and Venkatesh defend their findings by distinguishing the ensemble of individuals in their gang setting from the freelance participants surveyed in the earlier studies. Their main point was that such skewness was related to the formal organizational structure of the gang. In an illegal drug setting in which participants are primarily independent or freelance entrepreneurial capitalists, the revenues are likely to be more equally distributed and the average yield per participant is more likely to resemble that of the gang leader than foot soldier. There is one nuance that emerges from the Levitt and Venkatesh analysis: while foot soldiers had wages that were strikingly lower than the gang leader in times of relative peace, such earnings would increase dramatically during times of escalating violence with rival gangs—accordingly, the gang leader's earnings would decrease during such periods. The findings is consistent with the higher risk, higher earnings assessment that was found in previous research.

Inmate survey research has also contributed to this area and has illustrated how individual risk-taking and personal organization are indeed the main factors accounting for important variations in criminal earnings within a criminal setting. Based on their survey of Quebec inmates in 2000 and 2001, Morselli and Tremblay (2004) reported median criminal earnings for their overall sample at roughly \$35,000 annually. The mean for this same sample was strikingly higher at \$180,000, pointing to a highly skewed earning distribution. This pattern was further examined and Morselli and Tremblay (2010) found that, regardless of the presence of formal criminal organizations, criminal populations are radically stratified (when compared with noncriminal populations), with 20 percent of their inmate sample accumulating more than 84 percent of criminal earnings declared

during the survey. What this study tells us is that an accurate estimate of offenders' criminal earnings will offer a wider appraisal of the structure and scope of crime. For example, higher earnings were explained by higher offending rates, a greater implication in criminal markets (particularly in illegal drug markets), greater opportunism, a greater taste for risk, high ambitions, entrepreneurial behaviour in one's crimes, and close associations with more experienced offenders who transfer the acumen needed for participation in criminal markets (for results, see Morselli and Tremblay 2004; and Morselli, Tremblay, and McCarthy 2006).

Some may be quick to interpret the highly stratified criminal settings found by Morselli and Tremblay or Levitt and Venkatesh as typical of tightly structured organizational settings, with the highest ranked members keeping most of the earnings for themselves and leaving only marginal sums for lower-level members. This was exclusively Levitt and Venkatesh's explanation. For the remaining studies, higher earners were not necessarily in a position of authority over other participants. Instead, offenders who were able to harness important earnings on a regular basis and for extended periods were more likely those who were able to maintain and organize their ventures in more optimal fashion. Greater stratification in a criminal setting is generally an indication of some level of centralization around top earners, but such individuals are likely to thrive in centralized and decentralized settings because their organization is above all at a personal level.

6.4. Violence

That violence is a fundamental feature of organized crime is another statement that is oft-heard, yet less researched. The AFP covers this factor in a more general appraisal of an individual's or group's societal impact. As a factor of organized crime, violence may be addressed as an individual propensity or as a regulatory mechanism. What past research suggests is that violence in organized crime is better approached as a regulatory mechanism than as an individual propensity. Furthermore, research on violence in organized crime is often tainted by a self-fulfilling prophecy—if you look for violence

you will definitely find something. However, situating violence in a wider framework (conflict resolution, for example) generally reveals that the stereotypical violence that is often associated with organized crime is rarer than commonly believed and sometimes argued in scholarly work (see, for example, Goldstein 1985, 1997).

Most work on individual propensity for violence in organized crime settings is based on anecdotal evidence, often hinging on the numerous criminal memoirs that have been published by past organized crime participants. For example, the Westies were an Irish organized crime group in the Hell's Kitchen neighbourhood on the west side of Manhattan (English, 1991). This group was nearly eliminated by prosecutions in the 1980s. Many members were high school drop-outs and they were motivated almost exclusively by profit rather than an allegiance to their community or heritage. They were known for violence and infighting among the members themselves. The group eventually self-destructed due to greed and reckless violence. All indications suggest that this group, while possessing some organization, would fall on the less organized side of the continuum due to the lack of internal cohesion and discipline displayed by its members.

Repetto (2006) observes that the violence displayed by a particular group usually reflects the personality of its boss. For example, Albert Anastasia, an executioner on the Brooklyn waterfront and later the head of a Cosa Nostra family, had a fierce temper, ordering numerous hits. When an ordinary citizen recognized and informed on bank robber Willie Sutton, Anastasia became so enraged that he ordered the man murdered even though Sutton was not a mafia family member. Others, like Tony Accardo of Chicago and Angelo Bruno of Philadelphia, were more businesslike and avoided violence unless it was deemed absolutely necessary.

Bovenkerk (2000) makes the point that some violence within criminal groups arises out of necessity rather than the propensities of its members. This point echoes Reuter's (1983, 1984) previous work in this area. It follows from the very nature of illegitimate business, that people who deal in illegal goods and services cannot summon the authorities when they require assistance in a dispute. They therefore must construct their

own underground regulation system and base it on the fear of retribution. People who do not pay up on time or cooperate with the authorities may face serious repercussions. Such punitive actions are also designed to deter others who may contemplate such actions in the future.

Von Lampe and Johansen (2004) found that violence was not as frequent as one would expect, even in settings of high mistrust. This is consistent across past research. In his research on cocaine smugglers in the Netherlands, Zaitch (2002) found what most have: that violence to be a last-resort mechanism. Reuter found this to be the case in illegal markets in New York City. Adler (1985) found minimal violence in her research on southern Californian drug smugglers. In their research on UK drug markets, Pearson and Hobbs (2001) found violence to emerge only after other regulatory mechanisms failed. Morselli (2005) found this in his case studies of criminal careers. Jacques and Wright (2008) came to a similar conclusion in their research on St. Louis drug markets.

At the individual level, Reuter (1984) and Desroches (2005) demonstrated that unwanted visibility and poor business reputation are two consequences that explain why violence may be avoided by most. Research on street gangs also illustrate to what extent violence could be costly at the group and environmental levels. Levitt and Venkatesh (2000) found that higher-ranked and more reputed members of an organization were more likely to experience lost earnings during periods of escalating violence. Foot soldiers and lower-ranked members of an organization, on the other hand, were more likely to benefit from such rises since their earnings increased in accordance with the risks they took and the opportunities to promote themselves. Leduc (2006) found a similar pattern amongst Hells Angels members during the height of intergang violence in Quebec during the 1990s. That lower-level and less reputed organizational members and network participants benefit most from increased violence is indeed consistent with management logic in highly competitive contexts. In such settings, less reputed participants will try anything to get ahead and gain an edge in what is essentially a tournament setting. The more reputed participants, on the other hand, would opt for the status quo and prefer for peace to reign.

While common views on organized crime may emphasize a context of hegemony in which dominant gangs and organizations are able to fend against and eliminate their competitors by overpowering them with violence, there is a growing consensus in organized crime and parallel research that violence is best understood as taking place within a contagion process. This explanation situates escalating violence within the structural changes in a criminal environment rather than as a result of the strategies of the more powerful groups. Decker (1996) maintained that violence was an integral part of the street gang environment, but he also provided an explanation for an increase in violence during certain periods: “rapid escalation of intergang hostilities” is a function of retaliation or, in Loftin’s (1984) terms, contagion. “Such actions reflect the collective behaviour processes at work, in which acts of violence against the gang serve as the catalyst that brings together subgroups within the gang and unites them against a common enemy. . . . The precipitation of such activities pulls fringe members into the gang and increases cohesion” (Decker, 1996:256). This was also the central thesis and finding in Morselli, Tanguay, and Labalette’s (2008) research on biker gang violence in Quebec during the 1990s. During times of normal levels of lethal violence in organized crime (roughly 15-20 percent of all homicides in a given year), individuals cannot systematically rely on their groups or organizations to support them in their interpersonal conflicts.

Abnormal increases in account settlements (over 30 percent of all homicides) would thus indicate a shift from individual to group presence within any given conflict. In such sequences, collective liability becomes a key factor as the group or organization is held accountable for the actions of its individual members. Within this transition towards group action and collective violence, the criminal milieu becomes increasingly polarized, resulting in a lack of third parties who conventionally intervene to keep things relatively peaceful and a necessity for police to intervene as conflict regulators. Papachristos’ (2009) research on street gang homicides in Chicago is consistent with this general argument. He maintains that gang homicides are not simply products of individual or environmental factors. Instead, he demonstrates that in times of escalating violence and increased polarization in a criminal setting, the contagion of violence creates a “network

of structure between disputants” (Papachristos, 2009:81). The result, as with previous research, is that individual murders “create or sustain such structures since the consequences of murder trigger normatively prescribed (re)actions from connected groups involved in dominance disputes” (Papachristos, 2009:82).

Thus, whether at the individual, group, or environmental level, violence is an abnormal and last-resort phenomenon in organized crime settings and must be appraised as an indication that something has gone wrong in the milieu and not a common or systemic feature of any organized crime setting. At the environmental level, escalating violence is an indication that the organized crime setting is increasingly polarized and, thus, increasingly centralized around select groups. At the group level, a reputation for violence runs parallel to the group’s members’ reputations as potential regulators in co-offender disputes—interestingly, such a reputation for violence is likely to decrease the group’s use of violence. Such groups are the types of groups that gain enough clout for others to organize around and are likely the more central and resilient forces in an organized crime setting. At the individual level, a propensity for violence (see above) is largely shunned upon and groups or criminal markets that consist of a high volume of members who do use violence repeatedly are likely to be short-lived and disorganized.

6.5. Technological Competence and Private Protection Capacities

As the previous section demonstrated, participation in organized crime requires more than a capacity for violence. The AFP has tapped into this by measuring offenders’ criminal activity awareness and skills, which may include technical capacities and knowledge across different crimes. Research in this area is minimal, often attracting peripheral attention in studies focused on other dimensions of organized crime. In terms of the structure of organized crime, the main observation suggests that increased skills and competency on the part of individual participants or groups likely reflects a lack of formal organizations in the more general setting.

Albanese (2007) argued that the skills and competencies available to a criminal market group are an important consideration as to whether these demands can be met. Rarely does a pre-existing group attempt to manufacture criminal opportunities through predatory actions (e.g., extortion). The skills possessed by individual group members, therefore, exercise a key influence in the relationships and activities of that group. Overly centralized patrimonial networks may be inefficient as they are overly reliant on the judgment and knowledge of the top management and fail to fully utilize the knowledge of subordinates who know more about how they fit into the risks and opportunities in the local environment.

Similar conclusions were raised by Icduygu and Toktas (2002), who studied human smuggling in the Middle East and Turkey. They found that traffickers generally had access to the latest telecommunications technology, such as mobile phones, and can change and adapt their strategies rapidly depending on new situations, in terms of reinforced border controls along particular borders or regarding the most profitable means of transportation. Such technological competence meant that participants in this network were not forced to rely on a more formal organizational structure. Instead, such groups operated through a sequence of contacts that included people who were able to supply various services, such as accommodation and local transport, forgers of documents, and corrupt officials. Because of this recourse to modern communications technology, which allowed them to interact swiftly, and without leaving traces, smugglers were able to run their operations effectively.

One of the most important resources an individual, criminal group or organization can supply is private protection. With law-enforcement and policy attention generally aimed at more sensationalist drug trafficking activities and acts of violence, this factor is often overlooked. Private protection, however, has been the key factor pointed to by researchers of organized crime in explaining the existence and resilience of mafia groups. This has been attested to across multiple cultural settings, from Italy, the United States, Russia, Japan, and Canada. The first researcher to establish that private protection was the principal mafia resource was Reuter (1983). After acknowledging that bookmaking,

numbers, and loansharking markets in New York City were not, as commonly alleged, in the monopolistic control of a five-family Cosa Nostra system, he did find that the Cosa Nostra families had an exclusive hold on the arbitration market that transcended these and other criminal markets. Cosa Nostra members and families had the clout and reputation to serve as third-party mediators in extra-legal conflicts between participants in criminal markets, and this made them necessary regulators in organized crime.

Reuter may have been the first to find the importance of arbitration as a factor accounting for the presence of prominent participants and organizations in an organized crime setting, but the thesis of the mafia as a private protection industry was formulated by Gambetta (1993) in his research on the Sicilian Mafia. Similar to Reuter, Gambetta found and argued that although members of the Sicilian Mafia may have been involved in a variety of criminal market activities, the only resource which defined their prominence as mafiosi was the ability to supply private protection resources when called for.

These two general factors are indications of opposing structural features of criminal groups of markets. Groups and more general settings that rely on the technological competencies and personal expertise of participants are more individuated, thus, suggesting a more decentralized structure. However, settings that rely on private protection services become more dependent on the select few that are able to serve as reliable suppliers. As with a reputation for violence, an increase demand for private protection services will establish a centralized arbitration market that will likely transcend the criminal markets in which conflicts occur and require resolution by third parties.

6.6. Language Skills, Ethnic Composition, and Social Embeddedness

The importance of ethnicity in organized crime is generally approached in an overly deterministic manner in that members of an ethnic group are often believed to merge together in closed working settings to participate in crime. Research in this area has not denied the influence of a common ethnic heritage, but it has demonstrated why there is

more to accounting for how and why cooperation in organized crime emerges. For example, greater emphasis is often placed on a person's ability to communicate in several languages (or surround himself with others who can) as well as by one's network of family, friends, and acquaintances across distinct cultural settings. This capacity is best approached with a social embeddedness framework, which is concerned more with the background factors accounting for criminal networks than with the structural features of the network itself.

While this concept entered the realms of organized crime research over the past ten years, the elements of social embeddedness were present well beyond this period. Although not explicitly adhering to the social embeddedness approach, key studies from the 1970s emphasized the importance of an individual's background and social ties for understanding the structure and scope of organized crime at a wider level. In two studies of criminal groups, Ianni argued that organized crime is best explained by examining local kinship or ethnic social networks. In his first study, Ianni (1972) found that Italian crime families were firmly rooted in the three imperatives which shape southern Italian culture: the primacy of the family, the juxtaposition of church and state, and the ascendancy of personal honour over statutory law. Together, these cultural features gave rise to numerous bands of outlaws and to more stable secret societies, such as the Mafia, 'Ndrangheta, and Camorra. However, it was the life style, the state of mind, and the sense of pride represented by the Mafia, rather than the organization per se, which Ianni found to be of prime importance to the success of Italian crime families. Authority and power are functions of family lineage, generational affiliation, age and relative position in the kinship structure. People, rather than organizational functions, define the organization. Personal qualities and contacts are all important.

While the importance of family and traditions was clear for Italian crime families, Ianni attested to key differences in his second study of the ethnic succession and network formation amongst black and Puerto Rican criminal groups in New York City (Ianni 1974). In this setting, two distinct forms of social embeddedness were found. First, bonding relationships served to introduce individuals to each other and unite them into

joint criminal ventures. Such relationships are generally rooted in childhood friendships, neighbourhood acquaintances, prison encounters, family relationships, kinship ties, and business contacts. Second, criminal relationships were based upon a common core of activity in crime that keep people working together once they have joined a network. Examining such embeddedness features provides the needed insights for understanding the formation of networks and the criminal relationships sustaining them.

Lupsha (1996) followed closely from where Ianni left off by examining how the traditional bounded village culture and familial blood ties provide the organizational glue for many organized criminal groups. He argued that if a criminal group speaks the same language, has the same village roots, and abides by the same myths and cultural norms, then it can function as a unit with greater trust and understanding within that setting. The need for trust, loyalty, intimate knowledge of character, security, sense of courage, prowess, honesty, ease of understanding, communication and control makes ethnicity, kinship, blood-tie, language, and race important variables for group bonding, organization, and identification. As these groups extend their networks to countries and cities around the world, however, they remain connected to the "center" through capital, technology, access to multiple identities, rapid transportation, and cross-border mobility.

Such background and embeddedness factors have also emerged in more recent research. Finckenauer and Waring (1998), for example, also identify the importance of social embeddedness in explaining Russian-linked organized crime in the northeast United States during the 1980s and 1990s. The authors question the common belief that bonds resulting from a common place of origin, cultural and social rituals, and values are often exploited by organized crime groups to reproduce the same structures of complicity, conspiracy of silence, and social cohesion that migrants were accustomed to in their country of origin—Ianni's understanding of Italian organized crime is a good example of such a claim. Finckenauer and Waring (1998), however, find that instead of mafia-like organized crime, Russian offenders in the United States operate as networks in which there is little loyalty based on a common ethnicity and heritage. The authors argued that Russian organized crime in the United States was not the separate act of individuals, nor

is it ethnically based organized crime. Crimes committed by Russian groups are not sufficiently organized to be considered part of organized crime; yet changing criminal networks of individuals make them adaptable to emerging criminal opportunities.

Research on street gangs has also contributed to this area. Decker, Bynum, and Weisel (1998) conducted more than twenty such interviews with gang members in Chicago (an established gang city) and San Diego (an emerging gang city). In both cities, law enforcement officials and social service providers identified their city's most organized gangs and provided information on leadership structure, the criminal activities that gang members were involved in, relationships with other gangs, and relationships with other social institutions. The ethnic background of a gang was integrated as a key factor. The San Diego context allowed Decker et al. to confirm past research that found little evidence to suggest that gang membership may be considered a key factor accounting for the level of organization in a setting. This was largely because of the disorganized features of San Diego gangs. Results were different when examining the Chicago gang scene. The main gangs, such as the Gangster Disciples, exhibited many characteristics of emerging organized crime groups. Their structure and activities were products of the relationships that were forged with gangs in prison and, to a lesser extent, with gangs in other cities. Other gangs, such as the Latin Kings, represent the typical cultural gang in that elements of Hispanic culture occupied a central role in the gang.

Another extensive study of the social embeddedness component of organized crime was conducted by Ruggiero and Khan (2006), who interviewed 123 drug trade participants and law-enforcement officials in Britain and Pakistan. Their aim was to unravel the organization structure of British South Asian drug networks. Based largely on background and ethnic features, the authors identified four types of structures. In this study, the ethnic component proved to hinder rather than facilitate a criminal network. Family networks were not common in British South Asian drug markets, largely because the family blocked the creation of more expansive networks. Mono-ethnic networks were described as short-term structures, largely because they were unable to meet the demand of an open and multi-ethnic criminal market. Restricting the network to only one ethnic

group, in short, was ineffective because individuals with other ethnic backgrounds were often more skilled and socially connected to meet the various tasks of drug distribution. Such exclusive ethnic structures were also more prone to competitive violence.

The two other structures did not rely on ethnicity as a relational component. These non-ethnic networks were less likely to specialize and more likely to broaden their horizons across markets and geographical space. They were also more successful. Issue-specific networks relied on a diversity of participants, more formal organizational methods, were more likely to cross over multiple criminal markets, and were more likely to include legitimate trade participants to facilitate money management resources in the network. Value-adding networks established linked and recruited across ethnic groups and integrated such participants in a clear division of labour. Such networks were more continuous and more reputed in the wider community.

Zhang's (2008) ethnographic research of human smuggling from China to the United States is another study into the social embeddedness of organized crime participants. He emphasized the importance of the *guanxi* exchange system in such smuggling routes. Based on interviews with human smugglers, clients, government officials, and law enforcement agents, Zhang provides a conceptual explanation of how individuals from a wide range of backgrounds are able to engage in group-oriented transactions and to deliver their services with high levels of success and efficiency. Such exchanges are based on existing networks that minimize interpersonal tensions and reduces operational complications. The main features that simplify this process included familial links, a shared dialect, and trust relationship based on a mutual acquaintance. Such social ties between smugglers and their clients are developed within Chinese communities and from extensions from all walks of life (e.g., housewives, businessmen). More importantly, the involvement of such conventional people in the human smuggling process is not frowned upon. On the contrary, most of these participants perceived themselves (and were perceived by others) as altruists. In this regard, Zhang refutes the prevailing myth of Chinese criminal organizations colluding with high-ranking government officials who allegedly facilitate the organized illegal transport of persons.

Zhang was pointing to the social opportunity structure in which organized crime participants are embedded in at any given moment and in any given place. This was more thoroughly examined by Kleemans and DePoot (2008). Based on official data from the Netherlands, these researchers conducted quantitative and qualitative research into the criminal careers of 979 offenders who were involved in 79 extensively analysed cases of organized crime during the latter half of the 1990s. They analysed how and when offenders become known to the criminal justice authorities, as well as examining the criminal careers of ‘starters’, ringleaders, and ‘nodal’ offenders. The authors document how social ties play an important role in organized crime and how such ties provide access to a social opportunity structure that is extremely important for explaining involvement in organized crime. The ensemble of ties surrounding an individual explains why certain offenders progress toward certain types of crimes at a relatively young age, whereas others become involved in organized crime only later in life.

The arrival of key contacts is the main factor here and such social relationships are typically extensions of an individual’s family and friendship background. People have a much greater chance of getting involved in crime if they are born into a family in which parents or older brothers are already active in crime. Family friends, childhood or student friends, and neighbours relations have been found to be relevant factors to involve people as starter in criminal activity. As well as work and occupation contacts underlies criminal cooperation and involvement in organized crime (several starters possess skills through their work, occupation or employment history). Leisure activities and sidelines also act as a catalyst for contacts between parties from different social worlds. These findings add network features to a person’s life and underlie the emergent processes that often underlie organized crime activities.

Thus, even beyond ethnic features, how individual offenders are socially embedded has an influence on how more general settings are structured for crime. Akhtar and South (2000) studied the business operations of heroin dealers in a South-Asian community in England. Social embeddedness was a prominent factor. Many of the key participants in

the new, heroin-dealing businesses had grown up and gone to school together. Both kinship and friendship were important for accounting for the structure of dealing groups. Curtis and Wendel (2000) studied this in a research based on interviews with 227 heroin users and 146 heroin distributors and data on marijuana markets in Lower East Side on Manhattan between 1983 and 1998. This study established a two dimensional typology that differentiates forms of retail market system according to social organization (freelancers vs. socially-bonded business vs. corporation) and technical organization (street-level vs. indoor vs. delivery). This typology of drug distribution was influenced by the extent to which drug distributors were integrated (or not) in a specific setting. Distributors who used neighborhoods simply as locales to get money were less likely to be integrated in the communities.

As with the previous section, the underlying pattern that guides the influence of social embeddedness factors on the structure of organized crime is the extent to which a community or network increases the expertise of individuals. When individual expertise surpasses organizational loyalty as the principal force in making and breaking social relationships, the overall setting is expected to decentralize. Thus, an individual's capacity to speak multiple languages is a key resource that is sought after by most criminal groups involved in transnational trades. An individual's capacity to cultivate multicultural links locally or internationally is a similar resource. Finally, access to established and traditional exchange networks within a community also result in a more flexible opportunity structure, particularly for bridging clients with suppliers and for initiating newcomers into a criminal trade.

6.7. Crime Mobility, Diversity, and Continuity

Whereas research on social embeddedness helps us understand the geographical span of organized crime, there is a parallel area of research that helps us understand how ongoing criminal networks intertwine with the general criminal mobility and spatial patterns of offending. The AFP also codes for the variety of crimes and networks that offenders use by measuring the range of crimes and the scope of an individual's criminal network as a

target assessment factor. This feature is essentially tapping into how an individual spreads out his crimes.

Such a factor is well documented in previous research that has centered on either specialized or polymorphic participation in crime or on how criminal network structures shape the opportunities available to a given offender. Snook (2004), for example, suggested that co-offenders could combine their resources to increase the scope of their awareness space and range of criminal opportunities. The causality orienting this relationship, however, remains ambiguous in that it is still unclear whether an offender's network of co-offenders extends the geographical space that s/he could physically travel or whether this criminal network provides an alternative that replaces the need to travel. What is known is that while predatory offenders (robbers, burglars, etc.) increase their criminal earnings by expanding the perimeter of their offending space, criminal market offenders (drug trade participants, for example) do not make significant gains from lengthier travels. For the criminal market participant, gains increased with a greater focus on local settings (Morselli and Royer 2008). Additional research on drug market settings has confirmed that drug dealers are less reliant on physical mobility and more reliant on straightforward network extensions. Similarly, in a study of cannabis growers in Vancouver, Malm, Kinney, and Pollard (2008) found that such specialists localized the geographical dimensions of their activities and rely primarily on the social networks to broaden the scope of their clientele.

Thus, it is important to assess not simply the network reaches of an offender or criminal group, but also the geographical span and diversity of crimes. The interplay between network capacities, criminal diversity, and geographical span has become increasingly clear. For criminal groups functioning in a non-market environment (predatory crime), an explanation for the benefits of mobility was suggested by Lacoste and Tremblay (2003) who found that the more successful groups of cheque fraudsters in their sample were more likely to travel widely. Such cosmopolitanism proved to be a key asset for offending, suggesting that offenders with broader and more cultural diverse networks are more likely to be amongst the more prominent participants in a given crime scene.

Similar conclusions were drawn in a recent research from the Netherlands that explored this matter extensively with the use of official arrest data. Kleemans and van de Bunt (2008) conducted an analysis of over 1500 suspects within a ten-year time span and found that certain pathways were prominent in establishing participants in organized crime activities. The main pathway confirms the importance of cosmopolitanism. Travel movements and contacts with other countries provide ample opportunity to discover and act on certain opportunities for (transit) crime. Examples are occupations involving mobility, transport, and logistics. This explains the involvement of directors of (small) businesses, independent professionals and, in some cases, individuals with relative autonomy in larger organisations, such as companies and banks. Indeed, occupations which lend access to a variety of people also present many opportunities for encounters with potential co-offenders.

However, the association between such range and an individual's status and position in a wider setting must also consider that cosmopolitanism is often associated with specialized behaviour, whereas a localization of crimes is often associated with more polymorphic behaviour. Previous case studies that compared long-term criminal careers tapped into this phenomenon and illustrated how offenders with localized criminal networks strived by engaging in a wide variety of crimes in that confined setting. The alternative pattern identified offenders with a more cosmopolitan and mobile approach to their crimes. Such offenders were more likely to specialize in a single criminal market over a wider geographical surface (Morselli 2005). In short, criminal groups that do mobilize elsewhere are likely specialized in a given market and should be therefore targeted as such.

Another important feature of criminal networks and criminal diversity is the extent to which important patterns may emerge and be transmitted within networks over time. Research on criminal mentorship has demonstrated that offenders who reported the presence of such key figures in their lives were more likely to benefit financially from crime, while avoiding costly incarceration spells—such mentored offenders were also

more likely to have brokerage-like networks (Morselli, Tremblay, and McCarthy 2008). Such intergenerational links must be considered because they render criminal networks and groups more adaptable and resilient to ongoing checks and controls from law-enforcement.

6.8. Upperworld Conditions and Facilitators

The rise and structure of organized crime is often an extension of conditions in the noncriminal context. The AFP accounts for the symbiosis that is generally in place between the criminal world and conventional world by referring to a broad outlook on “opportunity”, which refers to the social or professional circumstances that an individual or group has to support or facilitate commission of an offence. The range for such opportunities is indeed wide varying from employment in a port setting to have the accounting know-how to help criminal entrepreneurs manage and launder money.

While the focus for such research often carries us into the more typical drug trafficking activities, the importance of links with the upperworld for organized crime participants may be observed in less obvious setting. Tremblay et al.’s (2001) research on the resale of stolen vehicle parts in Quebec is a good example. Based on case studies of law-enforcement investigations which detailed networks involved in vehicle export resale, car chopping, and local resale between 1989 and 1994, they identified the participation and importance of auto industry professionals and legitimate scrap yard dealers. The authors argue that the emergence of such upperworld actors in the stolen vehicle market actually changed the crime commission process by increasing the likelihood of body switching (or changes in vehicle identification) methods.

The alignment with legitimate business serves several needs for organized crime groups (Lyman and Potter, 2007:75). It can be mutually advantageous for organized crime and legitimate businesses to collaborate. Organized crime gains concealment opportunities for illegal activities (e.g., drug sales from restaurants, money laundering opportunities) and consolidates a high degree of integration in the general business community.

Relationships bring business as in the case of pawn shops receiving stolen goods from offenders. Organized crime also can harass competitors and secure favourable union contracts and provide quick capital for joint ventures.

Morselli and Giguere (2006) argue that many of the same skills, acumen, and logistics are required within criminal and legitimate enterprises. Identifying an overlap between these two spheres is not new. They note that considerable research has been devoted to highlighting the importance of legitimate work force roles and functions in criminal operations. In Project Caviar, law-enforcement investigators were fully aware of the significant involvement of legitimate actors (e.g., an accountant) in the network being investigated. Morselli and Giguere's study went beyond documenting the importance of accounting, financial management, document preparation, cargo movement, and other tasks performed by legitimate trade players in criminal settings. This role of legitimate actors has been well documented (Levi et al., 2004). They were also interested in understanding the role of such participants in structuring the criminal network. They found that in the Caviar network, a select few participated in ways that went beyond the scope of their legitimate trades. Indeed, they found that legitimate actors may be essential in orchestrating a criminal network. Their study supports the emerging view of a symbiotic relationship between the upper- and under-worlds and that some legitimate actors are less passive participants in criminal networks.

Gambetta and Reuter (1995) note that Cosa Nostra members in New York City were involved in a number of collusive deals. In some cases they were invited by legitimate businessmen and in other cases they use extortion to enter. They may be invited into an industry to ensure that all businesses within a cartel have an opportunity to submit successful bids on publicly awarded contracts. Their involvement can also provide a barrier to entry into the industry and ensure that customers will not risk resisting prices—prices of course are fixed within a cartel. As New York is such a large and diversified market, different mafia families have become entrenched in different industries—the Genovese family on the docks and the Gambino and Lucchese families in the carting industry.

Varese (2006) provides us with an even closer look at the links between upperworld and underworld actors in his research on mafia presence in construction sectors in Italy. His analysis of two cities (Bardonecchia in Piemonte and Verona in Veneto) found that mafia involvement and control in legitimate sectors was more likely in industries with low product differentiation, ease of entry, an unskilled workforce, inelastic demand, and a large number of small firms. Collusive arrangements between businesses sustain the mafia as the latter helps enforce agreements. In turn, the structure of such criminal organizations is affected because they come to have a prominent role in such industries and enforce agreements for a long time—they therefore become entrenched in this role.

Often, such collusive arrangements between the upper and underworld reveal that upperworld actors are likely to benefit the most in the symbiosis (Gambetta and Reuter 1995). Mastrofski and Potter (1986) also support this by taking issue with notion that organized crime acts as corrupters of public officials. They argue that a more accurate perspective is that organized criminals, legitimate business people, and officials are equal players, with each bringing to the market resources the other wants and a routine series of exchanges occur. Organized crime offers money, products, and influence in return for protection, selective enforcement against competitors, and favourable policy decisions. Circumstances determine who is the initiator and this can as easily be the legitimate actor.

Van Dijk (2007) notes that organized crime is more prevalent in countries where the rule of law is less well established. The maintenance of the rule of law in the face of powerful crime groups requires an independent, incorruptible judiciary and professional police services. He further notes that good governance is a prerequisite for sustainable economic development. An improvement in a country of 6 points on the Transparency International Corruption Perception Index may increase GDP by more than 20 percent. In his view, organized crime is negatively related to police performance and the rule of law and positively related to grand corruption. One example of systemic corruption was found in some major international labour unions.

Jacobs and Peters (2003) document the U.S. federal government's remedial efforts to purge organized crime from four highly corrupt international unions: The International Brotherhood of Teamsters, the International Longshoremen's Association, the Hotel Employees and Restaurant Employees International Union, and the Laborers International Union of North America. Labour racketeering has been a major source of the Cosa Nostra crime families' revenues since the 1930s. From the early 1980s, the U.S. Justice Department brought or threatened civil racketeering lawsuits against numerous mob-controlled locals and the four international unions. These lawsuits led to an unprecedented effort by court-appointed monitors and trustees to purge the corrupted unions of racketeers and racketeering.

In sum, the overlap between underworld and upperworld actors reveals two scenarios. The first represents the high volume of facilitating relationships that are in place between individuals and that serve in expanding the scope of a criminal network and increasing its continuity if and when key underworld participants are removed. Such relationships remain transient from one criminal operation to the next. The second scenario is represented by a more structured and centralized system in which an on-going collusive arrangement emerges between underworld and upperworld actors.

6.9. Criminogenic Opportunities

There is a growing body of evidence that organized crime participants and groups revolve around specific illicit activities, rather than the reverse. Desirable illicit activities, made desirable due to public demand, the local market, or other opportunity factors appear to shape how and what type of organization will emerge to exploit the opportunity. Less often, a group will try to manufacture an opportunity through extortion.

Using a risk-based methodology to measure organized crime in Belgium, Vander Beken (2004) identified a series of vulnerabilities that account for why organized crime emerges in a given setting. Factors such as a sector's low entrance threshold (e.g., low-skilled workforce, financing is readily available), the presence of many small firms with strong

competition, limited continuity (loyalty of personnel, sectors with high turnovers of firms, often cash-based), limited or contradictory regulatory procedures.

As with other research that focused on the links between upperworld and underworld actors, Vander Beken's study is important for emphasizing that organized crime thrives in sectors with a low-skilled workforce, high competition, and considerable ambiguity in formal protocol. The most important is that such parameters are conducive to the criminal setting above all since the participant is generally low-skilled, competition is typically hostile, and rules and regulations are commonly conceived on an ad hoc basis.

Albanese (1987) has developed a framework to understand the extent to which a sector is vulnerable to organized crime infiltration. Assessment of the following characteristics of the sector will indicate whether an industry is at a high or low risk of being infiltrated: supply of small, financially weak businesses; elasticity of demand for the product in question; extent of regulation/ease of entry into the market; number of competitors; professionalism of entrepreneurs; and prior history of organized crime involvement in that market.

Building on such factors, there is a growing trend to think in terms of preventive, rather than repressive, methods to contain organized crime. This approach generally falls under the institutional administrative framework, which is concerned more with addressing the vulnerabilities that are present in a geographical area or industrial sector and less with targeting criminal groups that form in or penetrate such areas.

Van de Bunt and van der Schoot (2003) are amongst those at the forefront in this area. They applied a situational crime prevention approach to organized crime. They used case material from national reports in four countries—Finland, Hungary, Italy and the Netherlands—to understand the interfaces between the legitimate and illegitimate environments and to identify possibilities for preventive action. Their preventive approach was not focused on perpetrators but on the facilitating circumstances of organized crime. The interfaces identified in the national reports could be divided into

three categories: the demand for illegal products and services from the licit environment, the abuse of facilitators in the licit environment, and the availability of ‘tools’ in the licit environment.

Three categories of preventive measures could thus be identified. First, there is a need to reduce the demand from the licit environment for illegal products and services and this can only be accomplished through social and economic measures. For example, improving social conditions constitutes the best way of preventing people from becoming involved in human smuggling and drug abuse. Demand can also be influenced by social welfare legislation which prevents illegal residence and the demand for illegal labour, which in turn influences the demand for human trafficking. Second, individuals who facilitate organized crime through their knowledge or skills represent another interface between the legitimate and underworld. These facilitators can vary from public officials to professionals, transport companies, landlords, and hotel owners. Codes of conduct and the screening of personnel are important elements preventing the misuse of their expertise. In addition, legislation excluding criminals from public office can prevent criminal involvement in public administration. Third, Van de Bunt and van der Schoot discuss the way in which criminal groups make use of other opportunities in the licit environment. These include the infrastructure of the licit environment, such as transport facilities and financial services. For example, authorities can prohibit the establishment of corporations where there are indications of a criminal past or affiliations. In conducting activities such as money laundering and the transportation of illegal goods, crime groups rely on local government for obtaining permits and on the cooperation of local businesses. In the end, the prevention of organized crime can only be successful when businesses and governments possess a high level of integrity, which is easier said than done.

In sum, it appears that organized crime can flourish best in an environment in which an industry is characterized by a low entrance threshold, a large number of operators, and poor regulation in which a high degree of ambiguity exists in terms of what constitutes acceptable practice. A large number of participants in the sector also make regulation and

enforcement more difficult. An administrative rather than repressive framework may be the best way of ensuring that criminal groups do not penetrate vulnerable fields by reducing those vulnerabilities through better regulation and other measures.

6.10. Target Priority

Of course, the inverse of upperworld links and corruption opportunities is heightened law-enforcement awareness. A basic understanding of organized crime emphasizes the supply and demand factors that are at the foundation of any criminal market system. One element, however, is often overlooked when approaching the problem. Organized crime is not simply a product of supply and demand dynamics. It is, instead, an extension of a trinity in that for a criminal market, criminal group, or criminal entrepreneur to thrive over a prolonged period, it is important that supply and demand be accompanied by some level of impunity. Whether in terms of corruption opportunities or sheer neglect on the part of law-enforcement agencies, the level of impunity that organized crime participants have to function in is probably the most important factor accounting for why some criminal groups and settings are more organized than others. The general relationship is that the structure of organized crime becomes more centralized and formal as impunity increases. In this sense, the stereotypical image of tightly-structured criminal organizations and monopolized or cartelized criminal markets are only possible in settings where they are permitted to evolve as such. This is only possible in the absence of systematic law-enforcement controls.

Albini (1971) noted that decentralization in a criminal organization can be beneficial for both business and security reasons. The centralized bureaucratic model is an easy target because one merely has to decapitate the group; i.e., remove the upper echelon. If a group has a more amorphous structure, removing the boss really only removes the patron. The traditional patrimonial organization with the families, patrons and their clients is at a disadvantage when a group is being aggressively targeted by law enforcement agencies.

Extending directly from Reuter's (1983) focus on the consequences of product illegality, Lyman and Potter (2007) state that small fragmented criminal enterprises facilitate communication by restricting their geographic limits. Such enterprises also minimize exposure to law enforcement as they have fewer employees who can testify against the group. Sustainable groups need to be flexible because of an uncertain market and because the enforcement environment can change. Public attitudes, too, can change in relation to organized crime. The danger of the structural elaboration of the enterprise increases as the degree of uncertainty increases. Uncertainty requires that informality and decentralization of decision-making authority be maximized.

7. Conclusion

In all, we generated 23 factors from our research review of past studies on organized crime, criminal networks, and criminal markets. Table 1 lists and categorizes these factors according to their level of measurement. Overall, seven environmental or contextual level variables were identified. These parameters include straightforward market indicators such as the level of supply and demand, impunity measures, indicators of the criminal setting itself (level of financial stratification or the level of violence), and legitimate industry indicators (low entrance threshold and regulatory conditions). There is an overlap between group-level and individual-level parameters. Seven factors were classified exclusively as individual-level factors. Nine factors were categorized in either the group or individual level. This has less to do with an explicit statement in past research than with the fact that group level factors are largely dependent on the features of group members. It was therefore difficult for such parameters to be categorized exclusively at a group level.

Table 1: The Factors of Organized Crime

Environmental	Group	Individual
(-) Demand for illegal commodity		(-) Personality disorders
(-) Supply of illegal commodity		(-) Propensity for violence
(+) Impunity		(+) Depersonalizing of victims
(+) Degree of financial stratification		(-) Technological competence
(+) Escalating violence		(-) Language skills
(+) Low entrance threshold into industry		(-) Intergenerational mentoring
(+) Lax regulation of an industry		(+) Financial earnings
	(+) Formal organizational membership	
	(-) Trust	
	(+) Reputation for violence	
	(+) Private protection capacities	
	(+) Geographical displacement	

	(-) Multicultural links (-) Access to informal exchange networks (-) Access to upperworld facilitators (+) Collusive arrangements in legitimate sector
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(+) Factor is expected to centralize organized crime; (-) Factor is expected to decentralize organized crime

The impact that each factor is expected to have on the level of centralization in an organized crime setting is indicated in Table 1. Positive signs (+) indicate that an increase in the factor will lead to greater centralization in organized crime (or vice versa: a decrease in the factor will lead to decentralization). Negative signs (-) indicate an inverse relationship in which a decrease in the factor will result in greater centralization (or vice versa: an increase in a factor will result in decentralization).

For the environmental-level factors, all but the market indicators have an impact on making organized crime more centralized. Greater impunity gives criminal groups more time to organize themselves at more sophisticated levels. Greater financial stratification is also an indication that the organized crime setting is increasingly skewed toward a select few. Escalating violence is a sign that the setting is increasingly polarized around fewer groups who gain more prominence as a result. Low entry levels and lax regulation are the criminogenic opportunities that render a legitimate industry most vulnerable to the emergence of organized crime groups. Whereas some may argue that even criminal market indicators will also result in the emergence of more prominent groups, the main effect of increased demand or supply is a more competitive market and greater opportunities for all individuals or groups involved.

For those variables that overlap group-level and individual-level categories, each may be approached as countering another in its impact on the structure of organized crime. Increased formal organizational membership is an indication of a more centralized organized crime setting, but in settings where formal organizations are not prominent, trust is the main cohesive force and decentralization is expected to be the outcome.

Similarly, whereas a reputation for violence, private protection capacities, and geographical displacement are indicators of an individual or a group's capacity to operate effectively in a centralized setting, multicultural links, language skills, and access to informal exchange networks in a community increase a participant's repertoire, thus rendering individual expertise more important. Finally, whereas access to upperworld facilitators is an asset for any competitive organized crime participant, the emergence of collusive agreements between upperworld and underworld actors is a sign that typical symbiotic relationships have become more organized.

For exclusively individual-level factors, each may be approached as either an indicator of an individual's personal organization or how an aggregation of individuals with similar features would influence a wider environment. Individuals with personality disorders or a propensity for violence are more likely disorganized in their ventures—a high volume of individuals with such features would thus result in a highly disorganized setting. In turn, individuals who have learned to depersonalize victims are more likely to stand out in organized crime and are consequently sought after by more ambitious individuals or groups.

For the remaining individual-level factors, the expected impact on the structure of organized crime remains tentative and requires further empirical testing. Technological competence, language skills, and intergenerational mentoring are all marks of a competent individual who is likely effective and efficient in his personal ventures or that of a larger group. At this point, we opted for a negative relationship because such features render an individual more competitive, but such resources are clearly of value in either a centralized or decentralized organized crime setting. In the same sense, individuals who earn more from their criminal ventures are likely to have a centralizing force in a given setting, but as with the previous factors, such a feature makes one competitive in any environment.

These three sets of factors must also be addressed at the multivariate level in order to assess the various conditional effects that may intervene within each factor's impact on

the structure of organized crime. At a theoretical level, it remains difficult to imagine all possible interactions between each of the 23 factors, but general conditional effects are conceivable even before empirical testing. Environmental factors are clearly the most important conditional aspects of an organized crime setting. As implied in the discussion on the various bivariate relationships in the previous paragraphs, several variables are contingent on market factors and law-enforcement targeting (or impunity). Increased demand and supply makes the criminal market more accessible to a greater number of participants, thus increasing the importance of trust-based relationships and rendering the presence of more sophisticated formal organizations less of a necessity. These same group/individual level factors are also affected in a similar way if law-enforcement controls remain systematic and effective (or if impunity decreases).

High demand, high supply opportunities, and low impunity therefore establishes the contextual basis for a decentralized setting and groups and individuals will respond accordingly by investing increasingly in basic trust in co-offending relationship and more on resources that will increase their personal autonomy (multicultural links, access to informal exchange networks, access to upperworld facilitators, technological or language skills, criminal mentoring). In contexts where demand is low and supply is risky, individual autonomy is often displaced by the need for more centralized organizations that will govern the behaviours of members who are not able to survive on their own. Such low market standards are not likely, particularly in current criminal markets. Impunity, however, is a key condition that must be considered in that even in a setting with high market opportunities, formidable criminal organizations are likely to emerge if law-enforcement checks are neither consistent nor effective.

The remaining environmental factors also shape how group or individual level factors influence the structure of organized crime. In periods of escalating violence, the financial earnings of individuals are likely to change dramatically and formal organizational membership, reputation for violence, and private protection capacities are likely to become more valuable for criminal market participation. Escalating violence may also create a selection effect process which increases the utility of individuals who have a

propensity for violence, personality disorders, and a capacity to depersonalize victims. As the latter stages of Quebec's 1990s biker war suggests, such individuals are likely to be commended for their risk taking and awarded with an organizational status that they would have never received if the general climate was not abnormally violent. In criminal markets that are not marked by high levels of violence, such individual features are less of a requisite and likely displaced by skills that increase an individual's capacities as a supplier (technological competence, language skills, multicultural links, informal exchange networks, access to upperworld facilitators).

Finally, the contextual factors that affect the emergence of organized crime groups in legitimate settings also influence the impact that lower-level factors will have on the structure of organized crime in such areas. The likelihood of collusive agreements is conditional to lax regulations and the composition of the labour force in that industry. Any legitimate sector may contain a number of workers and professionals who facilitate the actions of organized crime participants. However, it is only under specific circumstances that such facilitation becomes structured to the extent that an organized crime group is seen as taking over a legitimate sector. Thus, legal professionals and money management experts are consistent yet autonomous facilitators in organized crime ventures, but it is particularly in construction settings, port environments, and other nonprofessional industries that offenders may become the organizing force.

8. Recommendations

While law-enforcement officials and policy makers cannot react strategically to most of the individual or group level factors, they are in a position to manipulate the contextual backdrop which conditions such lower-level factors. Indeed, officials from such practical settings are able to orient the environment of organized crime in either a centralized or decentralized direction. Whereas the Sleipner approach emphasizes who should be controlled, this framework suggests that the most obvious forms of manipulation that are at law-enforcement's disposal are the basic decisions of when to control and to what degree should control take place. Such decision-making is clearly not new for law-enforcement officials. What must be retained here is the outcome of that decision—its effect on organized crime. Law-enforcement officials must be aware of how their actions will shape the structure of organized crime. Indeed, they are in a position to foresee such outcomes.

Following the premises that prohibition practices will continue to be upheld by law-enforcement officials and policy makers and that the societal voids that generate organized crime groups will never be completely eradicated, the following recommendations highlight the advantages and disadvantages of the centralized and decentralized organized crime setting. The 'how to' recommendations suggest how some of the factors of organized crime can be either manipulated or monitored to orient an organized setting toward either of these scenarios. At this point, law-enforcement officials and policy makers are confronted with the challenge of containing a setting that was partially of their own intentional making.

The Centralized Organized Crime Scenario

Advantages of containing a centralized organized crime setting

- A clear and identifiable target in the form of a central and dominant criminal organization

- Difficulty for any competitor to replace central criminal organization once effectively targeted and dismantled
- A likely increase in prices for illegal commodities due to a (quasi)monopolistic setting

Disadvantages of containing a centralized organized crime setting

- The central target may become more formidable than authority is able to handle
- Escalating violence is expected if dominant group is contested by competitors
- Central group may carry organizational facilities into vulnerable legitimate sectors

How to orient/monitor a setting toward greater centralization?

- Keep track of decreasing demand or supply for illegal commodity
- Decrease law-enforcement targeting, particularly toward group which is to become most dominant
- Keep track of increasing disparities in financial earnings between participants within a given criminal market
- Monitor escalating violence
- Keep track of increasing presence of dominant group and collusive arrangements in vulnerable legitimate industries
- Monitor the decreasing tendency for participants to take part in straightforward trust-based co-offending operations
- Keep track of a possible increase in formal organizational membership within dominant criminal group and main competitors
- Keep track of the increasing prominence/need for participants with a reputation for violence and an ability to supply private protection
- Monitor the decreasing importance of multicultural links and community-based informal exchange networks
- Keep track of geographical displacement and possible expansion of dominant group.

The Decentralized Organized Crime Scenario

Advantages of containing a decentralized organized crime setting

- No dominant criminal group or organization
- Random targeting is effective
- Criminal groups are easily dismantled
- While sporadic episodes of violence will be the norm, an escalation in violence is not expected
- Minimal emergence of criminal groups in legitimate sectors

Disadvantages of containing a decentralized organized crime setting

- No clear and identifiable target
- Removed participants/groups are easily replaced
- Increased involvement of a wide range of network participants across a community
- Prices for illegal commodities will remain competitive and low

How to orient/monitor a setting toward greater decentralization?

- Keep track of increasing demand or supply for illegal commodity
- Make sure that law-enforcement targeting is consistent and systematic across all criminal market participants and groups
- Keep track of decreasing disparities in financial earnings between participants within a given criminal market
- Make sure that co-offending violence remains normal, sporadic, and individualistic
- Monitor the increasing tendency for participants to take part in straightforward trust-based co-offending operations
- Monitor the increasing presence of small, short-term groups assembled for specific criminal operations
- Keep track of the increasing importance of multicultural links and community-based informal exchange networks

Appendix: Catalogue of Factors

Level: Environmental

Variable Name: Demand for an illegal commodity

Level of Measurement: Various

Coding: Will vary by product or service

Explanation/Justification: Organized crime has been found to form and operate like legitimate businesses, meeting the needs and demands of suppliers, customers, regulators, and competitors. Economic concerns are the primary determinants of the formation and success of criminal groups. Because demand is generally high, illicit markets are usually competitive or disorganized rather than structured or monopolistic.

Possible Data Sources: Surveys of market demands (e.g., drug consumption, illegal gambling, etc.) and supply of illicit goods and services (e.g., price and availability of drugs)

Explanatory Power: Strong

Expected Impact on Structure: Decentralization

Level: Environmental

Variable Name: Supply of illegal commodity

Level of Measurement: Various

Coding: Will vary by product or service

Explanation/Justification: Proximity to key domestic/international supply routes and porous borders increases the ease with which individuals or groups may meet the demand of a given population.

Potential Data Sources: Law enforcement reports on the volume of the global drug trade and trade in other illicit goods and services; reports covering the volume of trade in legitimate goods and services; seizure data

Explanatory Power: Moderate

Expected Impact on Structure: Decentralization

Level: Environmental

Variable Name: Impunity

Level of Measurement: Ordinal

Coding: High, Mid, Low

Explanation/Justification: The greater a group or individual is targeted by law-enforcement, the less centralized that group/individual will be. Inversely, a context of lax law-enforcement or impunity will lead to a more centralized organized crime setting.

Potential Data Sources: Arrest rates, crackdowns, monitoring of law-enforcement targeting.

Explanatory Power: Strong

Expected Impact on Structure: Centralization

Level: Environmental

Variable Name: Degree of financial stratification

Level of Measurement: Ordinal/Continuous

Coding: High, Mid, or Low or an estimate of earning distribution **Explanation/Justification:** Criminal populations are radically stratified (20 percent of participants account for roughly 80 percent of criminal earnings).

Possible Data Sources: Police files, proceeds of crime reports, interviews with former or incarcerated crime figures, estimates of criminal market profits.

Explanatory Power: Moderate

Expected Impact on Structure: Centralization

Level: Environmental

Variable Name: Escalating violence

Level of Measurement: Continuous

Coding: Number of violent acts

Explanation/Justification: Escalating violence is an indication that an organized crime setting is increasingly polarized around more prominent groups.

Possible Data Sources: Police intelligence files, UCR data, journalistic accounts.

Explanatory Power: Strong

Expected Impact on Structure: Centralization

Level: Environmental

Variable Name: Low entrance threshold into industry

Level of Measurement: Ordinal, Interval

Coding: Position of occupation on an occupational prestige scale; number of competing businesses

Explanation/Justification: A number of studies have shown that organized crime thrives in sectors with a low-skilled workforce, high competition, and considerable ambiguity in formal protocol. The most important is that such parameters are conducive to the criminal setting since the participant is generally low-skilled, competition is typically hostile, and rules and regulations are commonly conceived on an ad hoc basis.

Possible data sources: Standard international occupational prestige scales; yellow pages or chamber of commerce directories

Explanatory Power: Strong

Expected Impact on Structure: Centralization

Level: Environmental

Variable Name: Lax regulation of an industry

Level of Measurement: Nominal

Coding: Presence or absence of licensing and certification; presence or absence of clear behavioural codes.

Explanation/Justification: The lack of clear industry rules and regulations allows the entry of unscrupulous entrepreneurs and uncertified employees. The lack of regulation increases the likelihood that those with a history of criminal conduct will gain entry into the field.

Possible data sources: Government and industry sources on the licensing, certification, and other requirements of those engaged in the industry, as well as rule enforcement within the industry.

Explanatory Power: Strong

Expected Impact on Structure: Centralization

Level: Individual or Group

Variable Name: Formal Organizational Membership

Level of Measurement: Nominal

Coding: Presence or absence of formal group membership

Explanation/Justification: Formal membership in traditional organized crime groups may impose a whole new identity as a “man of honour”, whereby the individual agrees to subordinate all previous allegiances to that of the mafia family. Mafia memberships are brotherhoods with expectations of mutual aid without limits. The extent of formal organization may help understand the extent of group cohesion and the extent to which an organization is hierarchical and therefore susceptible to decapitation strategies.

Possible data sources: Police intelligence files, biographical material, and interviews with former organized crime figures, protected witnesses, or incarcerated crime figures.

Explanatory Power: Weak

Expected Impact on Structure: Centralization

Level: Individual or Group

Variable Name: Trust

Level of Measurement: Ordinal

Coding: High, Medium or Low level of trust

Explanation/Justification: Trust is critical to relationships not governed by a formal, legal regulatory system. Trust helps explain why individuals or groups cooperate in a given criminal operation. When social relationships are represented by a high level of trust-based and closed groups, this would indicate a neatly organized and compartmentalized organized crime setting. If, at the other extreme, trust is a luxury which is generally displaced for reasons of effectiveness and efficiency to execute a criminal operation, groups would tend to be more volatile and transient, with overlaps occurring on a consistent basis for opportunistic reasons. The extent to which relationships are based on trust may indicate the ability of the group to recruit from a larger pool of individuals and to participate in emerging markets.

Possible data sources: Police intelligence files, biographical material, and interviews with former organized crime figures, protected witnesses, or incarcerated crime figures.

Explanatory Power: Moderate

Expected Impact on Structure: Decentralization

Level: Individual or Group

Variable Name: Reputation for Violence

Level of Measurement: Nominal

Coding: Presence or absence of a reputation for violence

Explanation/Justification: A reputation for excessive violence may inhibit the growth of an organization, as it may attract the scrutiny of law enforcement and may repel potential business partners.

Possible Data Sources: Police intelligence files, journalistic sources, interviews with former or incarcerated organized crime figures.

Explanatory Power: Moderate

Expected Impact on Structure: Centralization

Level: Individual or Group

Variable Name: Private Protection Capacities

Level of Measurement: Nominal

Coding: Presence or absence of private protection services

Explanation/Justification: Regulatory violence is a key resource in organized crime settings. The greater a group or individual is able to supply co-offenders with such services, the more prominent they will be. The more a setting is in demand of such services, the more it will be centralized around those actors who are able to supply.

Possible Data Sources: Police intelligence files, informants.

Explanatory Power: Strong

Expected Impact on Structure: Centralization

Level: Individual or Group

Variable Name: Multicultural Links

Level of Measurement: Continuous

Coding: Number of overlapping ethnic groups surrounding an individual or group

Explanation/Justification: As with language skills, the more an individual or group is able to operate with individuals or groups from different ethnic background, the less they will be reliant on single organizations. Such cosmopolitanism increases an actor's expertise and flexibility.

Potential Data Sources: Electronic/physical surveillance data; informants

Explanatory Power: Strong

Expected Impact on Structure: Decentralization

Level: Individual or Group

Variable Name: Access to an informal exchange network in community (Community Embeddedness)

Level of Measurement: Ordinal

Coding: High, Mid, Low access

Explanation/Justification: Access to community members who facilitate the actions of organized crime participants expands the flexibility of and ensures trust in criminal operations.

Potential Data Sources: Electronic/physical surveillance data

Explanatory Power: Moderate

Expected Impact on Structure: Decentralization

Level: Individual or Group

Variable Name: Geographical Displacement

Level of Measurement: Ordinal

Coding: High, Mid, Low mobility

Explanation/Justification: Individuals or groups that are geographically mobile are more likely specialized in a single criminal market. Inversely, individuals or groups that are less geographically mobile are more likely participating in a variety of criminal markets in a local setting.

Potential Data Sources: Police/Intelligence files, electronic/physical surveillance data

Explanatory Power: Moderate

Expected Impact on Structure: Centralization/Specialization

Level: Individual or Group

Variable Name: Access to Upperworld Facilitators

Level of Measurement: Ordinal

Coding: High, Mid, Low

Explanation/Justification: This factor refers to the social or professional circumstances that an individual or group has to support or facilitate commission of an offense. Access to a wide range of circumstances from legitimate or criminal settings increases the size of networks and renders them more flexible, more insulated, and more resilient.

Potential Data Sources: Police/Intelligence files, electronic/physical surveillance data, informants.

Explanatory Power: Strong

Expected Impact on Structure: Decentralization

Level: Individual or Group

Variable Name: Collusive Arrangements in Legitimate Sectors

Level of Measurement: Ordinal

Coding: High, Mid, Low

Explanation/Justification: In some cases, legitimate sectors are not simply facilitating the actions of organized crime participants, but are involved in outright collusive agreements with them. Unlike the basic facilitating relationship, the collusive arrangement is more likely an indication that a more centralized system has emerged.

Potential Data Sources: Police/Intelligence files, electronic/physical surveillance data, informants, public/private sector monitoring.

Explanatory Power: Strong

Expected Impact on Structure: Centralization

Level: Individual

Variable Name: Personality disorders (e.g., antisocial or narcissistic personality; taste for risk)

Level of Measurement: Nominal

Coding: Presence or absence of major personality disorders among participants

Explanation/Justification: Individuals with a psychopathic or some other personality disorder may be more likely to order or conduct killings as a utilitarian way of meeting its goals and of commanding respect. Personality factors (autonomy, insecurity, narcissism) may also influence the types of networks in which people operate and the risks they take.

Possible data sources: Police files, biographies, journalistic accounts, interviews with former or incarcerated crime figures, personality tests administered to former or incarcerated crime figures.

Explanatory Power: Weak-Moderate

Expected Impact on Structure: Decentralization

Level: Individual

Variable Name: Depersonalizing the victim

Level of Measurement: Nominal

Coding: Presence or absence of individuals capable of completely depersonalizing potential targets/victims

Explanation/Justification: A major characteristic of a hit-man is his capacity to deny the victim's existence by paying no attention to his personal features. The victim is seen as a simple target. Killing may also be viewed as an act of loyalty to the organization that is justified by an order from a superior player. Although such a murder requires some form of coldness, other conditions may be involved in the process favouring such an act. While the context to execute a transactional murder is available to several, few will actually accept the offer and carry out the act. We suggest that some personality characteristics may favour learning processes involved in becoming someone who is ready and able to kill for another. The presence of individuals prepared to carry out an order to kill may influence the extent of violence committed by a group as well as establishing the strength of that group.

Possible Data Sources: Police files, biographies, journalistic accounts, interviews with former or incarcerated crime figures.

Explanatory Power: Limited evidence

Expected Impact on Structure: Centralization

Level: Individual

Variable Name: Financial Earnings/Wealth

Level of Measurement: Ordinal/Continuous

Coding: High, Mid, or Low criminal earner or a straightforward estimate of an offender's earnings.

Explanation/Justification: Aside from allowing one to obtain an illegal commodity or service, financial resources are also necessary for paying other participants for specific tasks or for creating levels of insulation between oneself and the actions being targeted.

Possible Data Sources: Police files, proceeds of crime reports, interviews with former or incarcerated crime figures.

Explanatory Power: Strong

Expected Impact on Structure: Centralization

Level: Individual

Variable Name: Propensity for violence

Level of Measurement: Ordinal

Coding: Extent of a propensity for violence, scaled from 1 (few, if any, members have such a propensity) to 5 (much of the leadership demonstrates a propensity for violence)

Explanation/Justification: Evidence from biographies indicates that some organized crime figures are prone to violence. In addition, some individuals engage in predatory crime (e.g., extortion), rather than merely responding to demands in the illicit marketplace. The more such abnormal tendencies toward violence are present, the more an individual or group/environment that he is part of is disorganized and often avoided by others.

Possible Data Sources: Offender management system, biographical material, interviews with former or incarcerated crime figures, personality tests administered to former or incarcerated crime figures

Explanatory Power: Weak-Moderate

Expected Impact on Structure: Decentralization

Level: Individual

Variable Name: Knowledge and technological competence

Level of Measurement: Ordinal

Coding: High, Mid, and Low competence level

Explanation/Justification: Technical capabilities and knowledge are important considerations as to whether criminal market demands can be met. The skills possessed by individuals exercise a key influence in the relationships and activities of the group(s) that they are part of. Overly centralized patrimonial networks may be inefficient as they are overly reliant on the judgment and knowledge of the top management and fail to fully utilize the knowledge of subordinates who know more about how they fit into the risks and opportunities in the local environment. The more groups place greater importance on the expertise of individual members, the more an organized crime setting becomes individualized and, thus, decentralized.

Possible Data Sources: Police intelligence files, informants, physical/electronic surveillance.

Explanatory Power: Moderate

Expected Impact on Structure: Decentralization

Level: Individual

Variable Name: Language Skills

Level of Measurement: Continuous

Coding: Number of languages an individual masters

Explanation/Justification: An individual's capacity to speak multiple languages increases his competence in an organized crime setting and allows him to operate with more than one group. Such a skill increases the individual's flexibility.

Potential Data Sources: Police intelligence records, electronic surveillance records.

Explanatory Power: Strong

Expected Impact on Structure: Decentralization

Level: Individual

Variable Name: Intergenerational Mentoring

Level of Measurement: Nominal

Coding: Presence or absence of criminal mentor

Explanation/Justification: Individuals who are mentored by established offenders are more likely to work in brokerage-like networks. Such individuals are more likely to be autonomous in their criminal market participation.

Potential Data Sources: Police/Intelligence files, electronic/physical surveillance data, interviews with incarcerated offenders, informants.

Explanatory Power: Moderate

Expected Impact on Structure: Decentralization

References

A

Abadinsky, H. (2003). *Organized Crime*. Seventh Edition. New York: Thomson.

Adler, P. (1985). *Wheeling and Dealing: An Ethnography of an Upper-Level Drug Dealing and Smuggling Community*. New York: Columbia University Press.

Akhtar S. and South, N. (2000). "Hidden from heroin's history: heroin use and dealing within an English Asian community. A case study", in M. Hough, and M Natarajan M (eds), "Illegal drug markets: from research to prevention policy", *Crime prevention studies*, vol. 11, pp. 153-177

Albanese, J. (2007). *Organized Crime in our Times*. Cincinnati: Anderson.

Albini, J. (1971). *The American Mafia: Genesis of a Legend*. New York: Irvington.

B

Boissevain, Jeremy (1974). *Friends of Friends: Networks, Manipulators, and Coalitions*. Oxford: Basil Blackwell.

Bovenkerk, Frank (2000). "Wanted: 'Mafia boss'-Essay on the personology of organized crime. Crime," *Law and Social Change*, Vol. 33, No.3, pp:225–242.

Bruinsma, Gerben and Wim Bernasco (2004). "Criminal Groups and Transnational Illegal Markets". *Crime, Law, and Social Change*, Vol. 41, pp:79-94

C

Canter, David (2003). *Mapping Murder*. London: Virgin Books.

Carley, Kathleen M., Ju-Sung Lee, and Krackhardt, David (2001). "Destabilizing Networks", *Connections* 24, 79-92.

Coles, Nigel (2001). "It's Not *What* You Know—It's *Who* You Know That Counts: Analysing Serious Crime Groups as Social Networks," *British Journal of Criminology*, Vol. 41, pp: 580-594.

Cressey, Donald R. (1969). *Theft of the Nation: The Structure and Operations of Organized Crime in America*. New York: Harper and Row.

Curtis, R. and Wendel, Travis. (2000). "Towards the development of a typology of illegal drug markets", in Natarajan M and M. Hough (eds), *Illegal drug markets: from research to prevention policy*, *Crime prevention studies*, Vol. 11, pp: 121-152.

D

Decker, Scott H. (1996). "Collective and Normative Features of Gang Violence", *Justice Quarterly*, Vol. 13, pp: 243-264.

Decker, S., H. Timothy, S. Bynum, and Deborah L. Weisel (1998). "A Tale of Two Cities: Gangs as Organized Crime Groups", *Justice Quarterly*, Vol.15, pp: 395-425.

Desroches, Frederick J. (2005). *The Crime That Pays: Drug Trafficking and Organized Crime in Canada*. Toronto: Canadian Scholars Press.

E

English, T. (1991). *The Westies: The Irish Mob*. New York: St. Martin's Press.

F

Fagan, Jeffrey (1990). Social Processes of Delinquency and Drug Use Among Urban Gangs. In C.R. Huff (Ed.) *Gangs in America* (pp.183-219). Sage: Newbury Park.

Felson, Marcus (2006). *Crime and Nature*. Thousand Oaks: Sage.

Finckenauer, James O. and Elin J. Waring (1998). *Russian Mafia in America: Immigration, Culture, and Crime*. Boston: Northeastern University Press.

G

Gabor, T. (2003) Assessing the Effectiveness of Organized Crime Control Strategies: A Review of the Literature. Ottawa: Department of Justice Canada.

Gambetta, Diego (1993). *The Sicilian Mafia: The Business of Private Protection*. Cambridge: Harvard University Press.

Gambetta, Diego and Peter Reuter (1995). Conspiracy Among the Many: The Mafia in Legitimate Industries. In G. Fiorentini and S. Peltzman (Eds.) *The Economics of Organized Crime*. Cambridge: Cambridge University Press, pp. 116-136.

Goldstein, P. J. (1985). "The drugs/violence nexus : A tripartite conceptual framework," *Journal of Drug Issues*, Vol.39, No. 4,pp: 493-506.

Goldstein, P. J. (1997). *The relationship between drugs and violence in the United States of America* (pp. 116-121). World Drug Report: United Nations Internal Drug Control Program.

Gottfredson, Michael R. and Travis Hirschi (1990). *A General Theory of Crime*. Stanford: Stanford University Press.

Grossman, D. (1996). *On Killing : The Psychological Cost of Learning to Kill in War and Society*. New York: Little, Brown, and Co.

H

Haller, Mark H. (1990). "Illegal Enterprise: A Theoretical and Historical Interpretation", *Criminology*, Vol. 28, pp: 207-235.

Hawley, Michael (2009). "Understanding Organized Crime Dynamics", Paper presented at the *Illicit Networks Workshop*, Centre for Transnational Crime Prevention, University of Wollongong.

I

Ianni, Francis J. (1974). *Black Mafia*. New York: Simon and Schuster.

Ianni, Francis J. (1972). *A Family Business*. New York: Russell Sage Foundation.

Icduygu, A. and Toktas, S (2002), "How do smuggling and trafficking operate via irregular border crossing in the Middle East? Evidence from Fieldwork in Turkey", in *International Migration*, Vol. 40, No. 6, pp. 25-52

J

Jacobs, J. and E. Peters (2003). "Labor Racketeering: The Mafia and the Unions." *Crime and Justice: A Review of Research*, Vol. 30, pp: 229-281.

Jacques, Scott and Richard Wright (2008). "The Relevance of Peace to Studies of Drug Market Violence", *Criminology*, Vol. 46, pp: 221-253.

K

Kalish, Y. and G. Robins (2006) "Psychological predispositions and network structure: The relationship between individual predispositions, structural holes and network closure." *Social Networks*, Vol. 28, pp: 56-84.

Kenney M., (2007), "The Architecture of Drug Trafficking: Network Forms of Organization in the Colombian Cocaine Trade," *Global Crime* 8: 233-259.

Kleemans E. and H. Van de Bunt (2008), "Organized crime, occupations and opportunity", in *Global Crime*, vol. 9, no. 3, pp. 185-197

Kleemans, Edward R. and Christianne J. dePoot (2008). "Criminal Careers in Organized Crime and Social Opportunity Structure," *European Journal of Criminology*, Vol.5, pp: 69-98.

Kleemans, Edward R. and Henk G. Van de Bunt (2003). The Social Organisation of Human Trafficking. In D. Siegel, H.G. van de Bunt, and D. Zaitch (Eds.) *Global Organized Crime: Trends and Developments* (pp. 97-104). Dordrecht: Kluwer.

Klerks, Peter (2001). "The Network Paradigm Applied to Criminal Organizations," *Connections* Vol. 24, pp: 53-65.

Krebs, Valdis (2001). "Mapping Networks of Terrorist Cells," *Connections*, Vol. 24, pp: 43-52.

L

Lacoste, Julie and Pierre Tremblay (2003). Crime and Innovation: A Script Analysis of Patterns in Check Forgery. In M.J. Smith and D.B. Cornish (Eds.) *Crime Prevention Studies* (pp. 169-196). Monsey: Criminal Justice Press.

Leduc, Maïa (2006). "Patchwork: ascension et promotions dans le milieu criminel", Masters thesis, École de criminologie, Université de Montréal.

- Levi, M., H. Nellen and F. Langhorst (2004) "Lawyers as crime facilitators in Europe: An introduction and overview," *Crime, Law, and Social Change*, Vol. 42, pp: 117-121.
- Levi, K. (1981). "Becoming a Hit Man: Neutralization in a Very Deviant Career", *Urban Life*, Vol. 10, pp: 47-63.
- Levitt, Steven D. and Sudhir A. Ventatesh (2000). "An Economic Analysis of a Drug-Selling Gang's Finances", *The Quarterly Journal of Economics*, Vol. 115, pp: 755-789.
- Loftin, Colin (1984). "Assaultive Violence as Contagious Process", *Bulletin of the New York Academy of Medicine*, Vol. 62, pp: 550-555.
- Lupsha P., (1996), "Transnational Organized Crime Versus the Nation-State", in *Transnational Organized Crime*, Vol. 2, No. 1, pp: 21-48
- Lyman, M. and Potter, G. (2007) *Organized Crime* (4th edition). Upper Saddle River, NJ: Prentice Hall.
- M**
- Maas, P. (1997) *Underboss: Sammy the Bull Gravano's Story of Life in the Mafia*. New York: Harper-Collins.
- Malm A.E., Kinney, JB, and Pollard, N.R (2008), "Social Network and Distance Correlates of Criminal Associates Involved in Illicit Drug Production," *Security Journal*, Vol. 21, pp: 77-94
- Marshall, A. (1961). *Men Against Fire: The Problems of Battle Command in Future War*. New York: William Morrow and Co.
- Mastrofski, S. and G. Potter (1986) "Evaluating law enforcement efforts to control organized crime: the Pennsylvania Crime Commission as a case study." *Policy Studies Review*, Vol.6, pp: 160-170.
- McGloin, Jean Marie (2007). "The Organizational Structure of Street Gangs in Newark, New Jersey: A Network Analysis Methodology", *Journal of Gang Research*, Vol.15, pp: 1-34.
- McGloin, Jean Marie (2005). "Police and Intervention Considerations of a Network Analysis of Street Gangs", *Criminology and Public Policy*, Vol. 4, pp: 607-635.
- McIllwain, Jeffrey S. (1999). "Organized Crime: A Social Network Approach," *Crime, Law and Social Change*, Vol. 32, pp: 301-24.
- Morselli, Carlo (2009). *Inside Criminal Networks*. New York: Springer.
- Morselli, Carlo (2005). *Contacts, Opportunities, and Criminal Enterprise*. Toronto: University of Toronto Press.
- Morselli, Carlo (2003). "Career Opportunities and Network-Based Privileges in the Cosa Nostra", *Crime, Law, and Social Change*, Vol 39, pp: 383-418.
- Morselli, Carlo (2001). "Structuring Mr. Nice: Entrepreneurial Opportunities and Brokerage Positioning in the Cannabis Trade" *Crime, Law, and Social Change*, Vol.35, pp: 203-244.

Morselli, Carlo and Tremblay, P. (2010). "Interviewing and Validity Issues in Self-Report Research with Incarcerated Offenders: The Quebec Inmate Survey (2000-2001)", Pp. 68-83 in W. Bernasco (ed.) *Offenders on Offending: Learning About Crime From Criminals*. New York: Willan.

Morselli, Carlo and Roy, Julie (2008). "Brokerage Qualifications in Ringing Operations", *Criminology*, Vol 46, pp: 71-98.

Morselli, Carlo and Royer, Marie-Noële (2008). "Criminal Mobility and Criminal Achievement", *Journal of Research in Crime and Delinquency*, Vo. 45, pp: 4-21.

Morselli, Carlo, Tanguay, D. and Labalette, Ann-Marie (2008). Criminal Conflicts and Collective Violence: Biker-Related Account Settlements in Quebec, 1994-2001. In D. Siegel and H. Nelen (Eds.) *Organized Crime: Culture, Markets, and Policies* (pp.145-164). New York: Springer.

Morselli, Carlo and Petit, K. (2007). "Law-Enforcement Disruption of a Drug Importation Network", *Global Crime*, Vol. 8, pp: 109-130.

Morselli, Carlo, Cynthia Giguère, and Katia Petit (2007). "The Efficiency/Security Trade-off in Criminal Networks", *Social Networks* 29: 143-153.

Morselli C, and Giguere C. (2006), "Legitimate strengths in criminal networks". *Crime, Law, and Social Change*, Vol. 4, pp:185-200.

Morselli, Carlo, Tremblay, P, and McCarthy, B. (2006). "Mentors and Criminal Achievement", *Criminology* , Vol.44, pp: 17-44.

Morselli, Carlo and Tremblay, P (2004). "Criminal Achievement, Offender Networks, and the Benefits of Low Self Control," *Criminology*, Vol. 42, pp: 773-804.

Morselli, Carlo and Kazemian, L. (2004). "Scrutinizing RICO", *Critical Criminology: An International Journal*, Vo.1 12, pp: 351-369.

Morselli, Carlo and Normandeau, André (2002). "L'association des malfaiteurs, version canadienne: débat autour d'une nouvelle loi pénale sur le crime organisé, dite loi anti-gang", *Revue pénitentiaire et de droit penal*, Vol. 2, pp: 427-437.

N

Natarajan, Mangai (2006). "Understanding the Structure of a Large Heroin Distribution Network: A Quantitative Analysis of Qualitative Data," *Journal of Quantitative Criminology* , Vol. 22, pp: 171-192.

Natarajan, Mangai (2000). Understanding the Structure of a Drug Trafficking Organization: A Conversational Analysis. In M. Natarajan and M. Hough (Eds.) *Illegal drug markets: from research to prevention policy*, *Crime Prevention Studies* (pp. 273-298). Monsey: Criminal Justice Press.

P

Paoli, L. (2003). *Mafia Brotherhoods: Organized Crime, Italian Style*. New York: Oxford University Press.

Paoli, L. (2002) "The paradoxes of organized crime." *Crime, Law, and Social Change*, Vol. 37, pp: 51-97.

Papachristos, Andrew (2009). "Murder by Structure: Dominance Relations and the Social Structure of Gang Homicide," *American Journal of Sociology*, Vol. 115, pp: 74-128.

Pearson, Geoffrey and Hobbs, Dick (2001). *Middle Market Drug Distribution*. London: Home Office.

R

Repetto, Thomas (2006). *Bringing Down the Mob*. New York: Holt.

Ressler, R. K., Burgess, A. W., Douglas, J. E., Hartman, C. R., & D'Agostino, R. B. (1986). "Sexual killers and their victims: Identifying patterns through crime scene analysis," *Journal of Interpersonal Violence*, Vol. 1, pp: 288-308.

Reuter, P. (1984). Social control in illegal markets. Dans D. Black (Éd), *Toward a general theory of social control, volume 2 : Selected problems* (pp. 29-58). Cambridge, Massachusetts : Academic Press.

Reuter, P. (1983) *Disorganized Crime: The Economics of the Visible Hand*. Cambridge: MIT Press.

Reuter, Peter, MacCoun, R, and Murphy, P. (1990). *Money from Crime: A Study of the Economics of Drug-Dealing in Washington D.C.*. Santa Monica: Rand.

Rogovin, C. and Martens, F. (1994) "The role of crime commissions in organized crime control." In R. Kelly, K. Chin, and R. Schatzberg (eds.), *Handbook of Organized Crime in the United States*. Westport, Conn.: Greenwood Press, pp. 389-400.

Ruggiero V, and Khan, K (2006), "British South Asian communities and drug supply networks in the UK: A qualitative study", in *International Journal of Drug Policy*, Vol. 17, No. 6, pp: 473-483

S

Snook, Brent (2004). "Individual Differences in Distance Travelled by Serial Burglars", *Journal of Investigative Psychology and Offender Profiling*, Vol.1, pp: 53-66.

Snook, B., Cullen, R., Bennell, C., Taylor, P., Gendreau, P. (2008) "The criminal profiling illusion: What's behind the smoke and mirrors?" *Criminal Justice and Behavior*, Vol. 35, pp: 1257-1276.

Sparrow, Malcolm K. (1991). "The Application of Network Analysis to Criminal Intelligence: An Assessment of the Prospects", *Social Networks*, Vol. 13, pp:251-274.

Steffensmeier, Darrell and Ulmer , (Jeffery T. 2005). *Confessions of a Dying Thief: Understanding Criminal Careers and Illegal Enterprise*. New Brunswick: Transaction.

T

Tremblay, Pierre, Talon, B., and Hurley, D. (2001). "Body Switching and Related Adaptations in the Resale of Stolen Vehicles", *British Journal of Criminology*, Vol. 41, pp: 561-579.

V

Van de Bunt, H. and van der Schoot, C. (2003). *Prevention of Organized Crime: A Situational Approach*. Meppel: Dutch Ministry of Justice.

Van Duyne, P. (2000) "Mobsters are human too: Behavioural science and organized crime investigation." *Crime, Law, and Social Change*, Vol.34, pp: 369-390.

Van Duyne, Petrus C. and Michael Levi (2005). *Drugs and Money: Managing the Drug Trade and Crime-Money in Europe*. London: Routledge.

Vander Beken T., (2004), "Risky business: a risk-based methodology to measure organized crime", *Crime, Law and Social Change*, vol. 41, pp. 471-516

Van der Hulst, R. (2009), "Introduction to Social Network Analysis as an Investigative Tool," *Trends in Organized Crime*, Vol. 12, pp: 101-121.

Van Dijk, J. (2007). "Mafia Markers: Assessing Organized Crime and Its Impact Upon Societies". *Trends in Organized Crime*, Vol.10, pp: 39-56.

Varese, F. (2006), "How Mafias Migrate: The Case of the`Ndrangheta in Northern Italy", *Law & Society Review*, Vol. 40, No. 2, pp: 411-444

Von Lampe, K. and Johansen, P. (2004) "Organized crime and trust: On the conceptualization and empirical relevance of trust in the context of criminal networks." *Global Crime*, Vol. 6, pp:159-184.

W

Williams, Phil (1998). "The Nature of Drug-Trafficking Networks," *Current History* , Vol. 97, pp: 154-159.

Z

Zaitch, Damián (2002). *Trafficking Cocaine: Colombian Drug Entrepreneurs in the Netherlands*. The Hague: Kluwer Law International.

Zhang, Sheldon and Ko-lin Chin (2002). "Enter the Dragon: Inside Chinese Human Smuggling Operations," *Criminology*, Vol. 40, pp: 737-767.

Zhang, Sheldon (2008). *Chinese Human Smuggling Organizations: Families, Social Networks, and Cultural Imperatives*. Palo Alto: Stanford University Press.