

Title registration for a systematic review: What are the social, economic and psychological risk factors that lead to recruitment to organised crime groups? Francesco Calderoni, Gian Maria Campedelli, Tommaso Comunale, Martina Marchesi & Alexander Kamprad

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TITLE OF THE REVIEW

What are the social, economic and psychological risk factors that lead to recruitment to organised crime groups?

BACKGROUND

Organised Crime (henceforth OC) has significant impacts on a wide range of countries all over the world. Globalisation has facilitated the flow of people and goods, and this also applies to criminal organisations (Adamoli, Di Nicola, Savona, & Zoffi, 1998; Passas, 1999; Morselli, Turcotte, & Tenti, 2011; Varese, 2011a). Research on OC originated in the United States during the twentieth century (M. Woodiwiss, 2003). American scholars have analysed the Italian-American mafias (Cressey, 1969; Albini, 1971; Abadinsky, 1981; Block & Scarpitti, 1985), drug trafficking organisations (hencefort DTOs) and gangs (Thrasher, 1927; Matza & Sykes, 1961; Albanese, 1985; Reuter & Haaga, 1989; Adler, 1993; Kelly, 1997). In Europe, studies focused on the Italian mafias (Gambetta, 1996; Paoli, 2003), but also on organised crime groups (henceforth OCGs) from different ethnicities and countries (Fijnaut & Paoli, 2004; Varese, 2005). In Asia, works have particularly examined the Chinese Triads and the Japanese Yakuza (Chu, 2000; Hill, 2003; Kaplan & Dubro, 2003). More recently, researchers analysed OCGs in Central and Latin America, with a particular attention to the development of DTOs and gangs (Bruce M. Bagley, 2004; Beittel, 2012; B.M. Bagley & Rosen, 2015; Bunker, 2015; Vásquez, 2015; de la Miyar, 2016). This variety of works and countries analysed shows the complexity of the concept of OC.

Due to this high complexity, the definition of OC has long been debated by institutions, agencies and academia (Hagan, 1983; Finckenauer, 2005; Hagan, 2006; Symeonidou-Kastanidou, 2007; Calderoni, 2008; von Lampe, 2008, 2015). The concept of "organised crime" has changed meaning several times during the twentieth century (Michael Woodiwiss, 2003; Varese, 2010; Paoli & Vander Beken, 2014). The variety of cultural and legal frameworks, of the OCGs themselves and of the social construction of the concept generated a long lasting debate on the definition of OC. Nevertheless, scholars and policymakers often refer to the general definition provided by the United Nations Convention against Transnational Organized Crime (United Nations, 2000, p. 5):

'Organized criminal' group shall mean a structured group of three or more persons, existing for a period of time and acting in concert with the aim of committing one or more serious crimes or offences established in accordance with this Convention, in order to obtain, directly or indirectly, a financial or other material benefit.

This systematic review will adopt the United Nations' definition, which encompasses a variety of groups frequently labelled as OC. The study will frame OCGs into three categories: mafias, drug trafficking organisations, and other criminal organisations.

Gangs could also fall within the definition of OC by UN. However, the present study does not focus on gangs because of the existence of a recent specific systematic review on this field (Higginson, Mazerolle, Ham Benier, & Bedford, 2014).

Mafias

A mafia has four main characteristics: (1) longevity, (2) an organisational and cultural complexity, (3) the claim to exercise a political dominion over its areas of settlement, (4) the ability to control legitimate markets (Paoli, 2014, p. 121). Originally referring to the Sicilian OCGs with such characteristics, the concept of mafia today extends beyond Italy (Varese, 2006, 2011b). Scholars include in the mafias OCGs such as the Yakuza, the Russian Mafia and the Triads (Gambetta, 1996; Chu, 2000; Hill, 2003; Varese, 2005). The element of political dominion and control over legitimate markets are essential in the definition of mafias. According to Gambetta (1996), a mafia specializes in the supply of illegal protection. In this perspective, Varese (2010) stresses the differences between mafias and other OCGs, focusing on the various protection services that it can offer to clients, which include protection against extortion, competitors, and law enforcement.

• Drug Trafficking Organisations

Drug trafficking organisations (DTOs) are "complex organizations with highly defined command-and-control structures that produce, transport, and/or distribute large quantities of one or more illicit drugs" (U.S. Department of Justice, 2010, p. 10). Illicit drugs are trafficked globally, and according to UNODC "drugs remain the highest value illicit commodities trafficked internationally, by quite a wide margin" (2010, p. 275; Savona & Riccardi, 2015). Empirical studies have often demonstrated that a variety of criminal actors participate in the trade of illicit drugs, including various forms of OC (Eck & Gersh, 2000; Pearson & Hobbs, 2001; Dorn, Levi, & King, 2005; Desroches, 2007; Benson & Decker, 2010; Natarajan, Zanella, & Yu, 2015). While mafias and street gangs may trade in illicit drugs, also other OCGs are present in these markets (Paoli, 2002). The violence associated with DTO's operations (Knox & Gray, 2014; Clapper, 2015) recently raised the question of whether increasingly levels of gang violence are associated with the rise of DTOs (Decker & Pyrooz, 2015). Addressing this issue in Mexico, Jones (2013, p. 8) concludes that "while gangs and organized crime often share common members, most Mexican gangs do not have extensive transnational connections or connections to large Mexican DTOs."

• Other Criminal Organisations

OCGs would refer to groups that "(1) utilize violence or threats of violence, (2) provide illicit goods that are in public demand, and (3) assure immunity for their operators through corruption and enforcement" (Hagan, 2015, p. 395). This third residual category includes all OCGs not falling within the two previous categories, e.g. those involved in trafficking of human beings or of illicit cigarettes.

The above synthetic overview points out that researchers have studied several forms of OCGs from different perspectives. While the number of studies on OC grows, several issues are still under debate. Among these, Kleemans argued that one of the main emerging theoretical issues in OC research is criminal careers (2014). In line with this argument, this systematic review aims at identify the social, economic and psychological risk factors that lead individuals to recruitment to OCGs.

OBJECTIVES

As for the primary objectives, the review aims at exploring and investigating the following research questions:

- 1) What are the evidence-based social, economic and psychological driving factors and processes to recruitment to OCGs?
- 2) As regards the three driving factors, what are the most relevant risk factors?
- 3) Do evidence-based findings confirm the importance of social, economic and/or psychological factors as primary driving factors of recruitment to OCGs?

Furthermore, the secondary objective of this systematic review is to:

4) Use data to develop agent-based models.

EXISTING REVIEWS

The only significant systematic review that has been identified specifically focuses on youth gang membership:

1) Higginson, A., Mazerolle, L., Benier, K. H., & Bedford, L. (2014). Predictors of youth gang membership in low-and middle-income countries: A systematic review.

This review synthesises the empirical evidence on the predictive factors associated with membership of youth gangs in low- and middle-income countries. It has not been possible to identify other relevant reviews in high-income countries and any ongoing reviews related to this field of study, especially with regard to organised crime. This is probably due to the fact that most systematic reviews focus on interventions and evaluation programs, rather than on risk factors.

PROBLEM

The study of OC and its characteristics in different contexts has long interested scientific research of different disciplines. Criminological studies, for example, have rather focused on between-individual changes in offending than on risk factors and within-individual changes in offending (Farrington, 2003). Recently, however, scholars have turned to risk-based approach to identify the factors that lead individuals to join OCGs. This process has mainly been driven by the expansion of developmental and life-course criminology¹ during the 1990s (Farrington, 2003, p. 222; Kleemans & De Poot, 2008). Several researchers have addressed within-individual changes in OC (Morselli, 2003; Morselli & Tremblay, 2004; Kleemans & De Poot, 2008; van Koppen, Poot, Kleemans, & Nieuwbeerta, 2010; van Koppen, de Poot, & Blokland, 2010), while others have taken a closer look at risk factors for joining OCGs (Kleemans & Van de Bunt, 1999; Klein & Maxson, 2006; Lyman & Potter, 2006; Kleemans & De Poot, 2008; Kleemans & van Koppen, 2014). A systematic review on the social, economic and psychological factors leading to recruitment into OCGs will provide a comprehensive overview of previous works in this field.

With regard to the social factors, the study and identification of the processes of recruitment of people who later become OC offenders is more complex than for other types of offenders. In fact, there are significant differences between high-volume crime and OC, which are, often: a. transnational in nature; b. characterised by significant importance given to social relations and c. requiring several co-offenders and specific expertise for the complexity of the activities conducted (Cornish & Clarke, 2002; Kleemans & De Poot, 2008). For these reasons, relation with co-offenders and contacts with the legal world also play an important role for OC-related activities. Moreover, Kleemans and van Koppen (2014) identified other three aspects leading to recruitment into OCGs. The two researchers primarily point out that unlawful behaviour and active roles in OCGs comprise adults with no previous criminal involvement, that is, "late starters are not exceptional" (2014, p. 290). Thus, a life in serious and OC does not necessarily start in early adolescence, with individual characteristics and long-term risk factors as an explanation for a lifetime involvement in crime. Secondly, the above mentioned social ties, social snowball effect, deliberate recruitment and life events also play a key role in recruitment into OCGs. Thirdly, work relations and work setting may create fertile soil for OCGs activities, especially cross-border crimes. These findings not only suggest that OC research on criminal careers should shed light more on later stages in life but also call for an in depth-analysis of different types of criminal activities as well as their socio-economic embeddedness.

With regard to the economic dimension, it has recently emerged in literature a general tendency to adopt an economic perspective in carrying out analysis on economic-related risk factors and counter-OCGs policies. Lavezzi (2008, 2014) has identified the factors and

 $^{^{1}}$ Developmental and life-course criminology (DLC), term coined by Farrington (2003), is concerned with key factors for offending, effects of life events and life transitions on offending and development of offending.

characteristics making Sicily's economy and its activities vulnerable to OCGs penetrations. Among the three economic factors favouring OCGs in Sicily there is its economic structure. Extortion and protection are common in Sicily where the economy is characterised by a large proportion of small firms, large sectors of traditional/low-tech economic activities, a large construction sector, and a large public sector (Lavezzi, 2008). Another key aspect affecting the legal economy in favour of OCGs is constituted by the imperfections in the credit markets, which can create opportunities for usury, especially in the absence of the rule of law. Opportunities for OCGs are also created by the absence of Rule of Law alongside the presence of illegal and informal markets (Bandiera, 2003). Finally, inequality has been indicated as a possible facilitator in the emergence of OCGs: data from Italian regions show a remarkable correlation between high income inequality and the diffusion of OC (Daniele, 2009).

As regards the psychological factors, most studies use as tool of investigation only the Psychopathy Check List-Revised (Ostrosky, Díaz, Romero, & Borja, 2012), a controversial instrument with a number of limitations, the most important being the diagnosis of psychopathy itself (Jones, Wagner, Faigman, & Raichle, 2013). Moreover, neuroscientific tools such as neuropsychological and genetic tests and even neuroimaging are widely used in courts to explain (and sometimes justify) criminal behaviours (Walsh & Beaver, 2009). To advance understanding of the psychological determinants of criminal behaviours in an innovative manner, it would be necessary to adopt these new tools as well, and thus move beyond the tools and models used by classic criminology.

Scientific literature exists on this field. A preliminary search for eligible studies was carried out in English on six main databases and sub-databases (EBSCO, ProQuest, PubMed, Scopus, Web of Science). The searches were conducted also through the French, German, Spanish and Italian language databases (Google Scholar, Sudoc.Abes, Sowiport, Liliacs, ProQuest - Latin America & Iberia Database, RivisteWeb). The search strategy included published and unpublished literature with no date and geographic location constraints. Queries used to search the sample databases included key words from two main sub-groups: Mafia, DTOs and OCGs related keywords; social, economic and psychological risk factors related keywords. This preliminary exploration led to the identification of about 48,000 records, later imported into Covidence to check for duplicates. The final number of references after the removal of duplicated documents amounts to approximately 40,000. Subsequently, the research team performed title and abstract screening using Mafia, DTOs and OCGs related keywords. The abstract screening yielded a total of 690 studies on Mafia, 250 on DTOs and 2,378 on OCGs. A second check for duplicates was then conducted to have a clean list of all studies comprising at least one of the three mentioned categories. A total of 2,917 records were identified as related to potentially eligible studies on either Mafia, DTOs or OCGs. Finally, with regard to the titles of documents, the total number of records amounts to approximately a third of the figure resulted in the abstract screening.

This literature has never been rationalised. The present review aims at investigating and understanding social, economic and psychological factors leading to recruitment into OCGs through the examination of empirically based study findings. A systematic and scientific approach on empirically based findings will allow to reach a better comprehension of OCGs, essential for evidence-based effective intervention and prevention policies.

POPULATION

Geography: This review takes into consideration individuals recruited by OCGs in highincome and upper-middle income economies (hereafter HIE and UMIE), as per The World Bank (2016) classification. Studying OCGs, Kleemans and Van de Bunt (1999; also see Kleemans & De Poot, 2008) stress the importance played by social ties and the environment at the individual level. The scholars point out that factors leading to recruitment to OCGs are strictly correlated to the socio-economic geography of the place where OCGs originate. Socio-economic indicators depend also on the stability of a state, to the extent that a state is able "to provide a stable politico-legal framework in which human, social and economic capital can be accumulated and invested" (Milliken & Krause, 2002, p. 761). State stability comprises factors as institutional stability, judicial independence, and political rights (Sung, 2004). Sung (2004), has investigated the relationship between state failure and predatory OC in 59 countries. He concludes that "state failure and economic failure proved essential elements of an organized crime-infested society", providing "criminal syndicates with ample opportunities to expand their influence and legitimacy among ordinary citizens" (2004, p. 125). Consequently, the factors affecting recruitment into OCGs may differ significantly in lower-middle-income and low-income economies (hereafter LMIE and LIE), i.e. developing countries and countries in post-conflict situations. In these countries, OC may be crucially shaped by institutional factors. Overall, the present systematic review will primarily focus on HIE and UMIE to remove possible biases due to issues relating to state stability, leaving open the possibility to include LMIE and LIE at a later stage.

Demographics: This review focuses on individuals who are or become members of OC according to the categories of OCGs listed in Background section. Individuals' age, sex, religion and ethnicity will also be considered without any exclusion.

Types of recruitment: The review's main focus is on individuals who were recruited by OCGs. Nonetheless, the review will also consider individuals who failed in joining OCGs and/or individuals who took part in forms of non-violent OC crimes, e.g. participation in illegal drug markets, counterfeiting, illicit trade in tobacco products, usury, illegal gambling, etc.

The inclusion of different types of offenders and categories of OC will provide a more comprehensive picture of the behaviour of OCGs members.

OUTCOMES

This review will focus on the risk factors of recruitment to OCGs through their analysis in three different groups:

- 1) Social factors
 - a) Politics
 - b) Community
 - c) Ethnicity
 - d) Strategies against OC and police monitoring

The review will also consider other relevant social factors, such as family, criminal career, educational and marital status.

- 2) Economic factors
 - a) Unemployment and income inequality
 - b) Economic deprivation and poverty
 - c) Relative deprivation
 - d) Housing

The review will consider other relevant economic factors, such as gross domestic product (GDP), wage levels and socio-economic outcomes (health and access to health care).

- 3) Psychological factors
 - a) Psychological and behavioural issues
 - b) Mental health disorders (e.g. depression, anxiety and mood disorders)
 - c) Other psychological problems

The review will also consider other relevant psychosocial deficits and neurological disorders, e.g. early neuromotor deficits, associated with higher involvement in violent and criminal behaviour (Raine, Brennan, Mednick, & Mednick, 1996).

STUDY DESIGNS

This systematic review aims at investigating and analysing social, economic and psychological evidence-based risk factors that lead to recruitment to OCGs.

This systematic review will evaluate risk factors studies through useful instruments that can be used for assessing the methodological quality of studies included. Three Cambridge Quality Checklists (CQCs) have been designed by Murray et al. (2009) to "to identify high-quality studies of correlates, risk factors and causal risk factors for systematic reviews and meta-analyses" (2009, p. 6). Thus, this review will use either CQCs or the STROBE (STrengthening the Reporting of OBservational studies in Epidemiology) tool.

Types of included studies: longitudinal study case-control, cross-sectional, case control, RCT and non-RCT.

Types of excluded studies: qualitative report, literature review, theoretical and conceptual analysis, editorial pieces.

The review will include studies in English, French, Spanish and Italian languages.

REFERENCES

Abadinsky, H. (1981). *The Mafia in America: an oral history*. New York: Praeger. Adamoli, S., Di Nicola, A., Savona, E. U., & Zoffi, P. (1998). Organised Crime Around the World. Retrieved July 12, 2016, from

http://www.heuni.fi/en/index/publications/heunireports/reportseries31.organisedc rimearoundtheworld.html

Adler, P. A. (1993). Wheeling and Dealing: An Ethnography of an Upper-Level Drug Dealing and Smuggling Community, second edition. Columbia University Press.

Albanese, J. S. (1985). *Organized crime in America*. Cincinnati: Anderson Pub. Co. Albini, J. L. (1971). *The American Mafia: genesis of a legend*. New York: Appleton-Century-Crofts.

Bagley, B. M. (2004). Globalisation and Latin American and Caribbean Organised Crime. *Global Crime*, *6*(1), 32–53. https://doi.org/10.1080/1744057042000297963 Bagley, B. M., & Rosen, J. D. (2015). *Drug trafficking, organized crime, and violence in the Americas today*. Gainesville: University press of Florida.

Bandiera, O. (2003). Land Reform, the Market for Protection, and the Origins of the Sicilian Mafia: Theory and Evidence. *Journal of Law, Economics, and Organization*, *19*(1), 218–244. https://doi.org/10.1093/jleo/19.1.218

Beittel, J. S. (2012). Mexico's drug trafficking organizations: Source and scope of the rising violence. In *Mexico's Drug Trafficking Violence: Scope, Consequences and Response* (pp. 1–46).

Benson, J. S., & Decker, S. H. (2010). The organizational structure of international drug smuggling. *Journal of Criminal Justice*, *38*(2), 130–138.

Block, A. A., & Scarpitti, F. R. (1985). *Poisoning for Profit: The Mafia and Toxic Waste in America*. William Morrow.

Bunker, R. J. (2015). Cameron H. Holmes: Organized crime in Mexico: Assessing the threat to North American economies. *Trends in Organized Crime*, *18*(4), 326–328. https://doi.org/10.1007/s12117-015-9240-5

Calderoni, F. (2008). A Definition That Could Not Work: The EU Framework Decision on the Fight against Organised Crime. *European Journal of Crime, Criminal Law and Criminal Justice*, *16*, 265.

Chu, Y. K. (2000). The Triads as Business. London: Routledge.

Clapper, J. R. (2015). Statement for the Record Worldwide Threat Assessment of the

U.S. IC Before the Senate Armed Services Committee. Washington: Office of the Director of National Intelligence. Retrieved from

https://www.dni.gov/index.php/newsroom/testimonies/209-congressional-testimonies-2015/1174-statement-for-the-record-worldwide-threat-assessment-of-the-u-s-ic-before-the-sasc

Cornish, D. B., & Clarke, R. V. (2002). Analyzing Organized Crime. In A. R. Piquero & S. G. Tibbetts, *Rational Choice and Criminal Behavior: Recent Research and Future Challenges*. New York: Garland.

Cressey, D. R. (1969). *Theft of the Nation: The Structure and Operations of Organized Crime in America*. Transaction Publishers.

Daniele, V. (2009). Organized crime and regional development. A review of the Italian case. *Trends in Organized Crime*, *12*(3–4), 211.

https://doi.org/10.1007/s12117-009-9079-8

de la Miyar, J. R. B. (2016). The economic consequences of the mexican drug war. *Peace Economics, Peace Science and Public Policy*, *22*(3), 213–246.

https://doi.org/10.1515/peps-2016-0014

Decker, S. H., & Pyrooz, D. C. (2015). The Handbook of Gangs (1st Edition).

Chichester, West Sussex, UK: Wiley-Blackwell.

Desroches, F. (2007). Research on upper level drug trafficking: a review. *Journal of Drug Issues*, *37*(4), 827–844.

Dorn, N., Levi, M., & King, L. (2005). *Literature review on upper level drug trafficking* (Home Office Online Report No. 22/05). London: Home Office Research, Development and Statistics Directorate.

Eck, J. E., & Gersh, J. S. (2000). Drug Trafficking as a Cottage Industry. In M. Natarajan & M. Hough (Eds.), *Illegal drug markets: from research to prevention policy* (pp. 241–271). Boulder, CO: Lynne Rienner Publishers.

Farrington, D. P. (2003). Developmental and Life-Course Criminology: Key Theoretical and Empirical Issues-the 2002 Sutherland Award Address. *Criminology*, *41*(2), 221–225. https://doi.org/10.1111/j.1745-9125.2003.tb00987.x

Fijnaut, C., & Paoli, L. (2004). *Organised Crime in Europe: Concepts, Patterns and Control Policies in the European Union and Beyond*. Springer Science & Business Media.

Finckenauer, J. O. (2005). Problems of definition: What is organized crime? *Trends in Organized Crime*, 8(3), 63–83. https://doi.org/10.1007/s12117-005-1038-4 Gambetta, D. (1996). *The Sicilian Mafia: The Business of Private Protection*. Cambridge, MA: Harvard University Press.

Hagan, F. E. (1983). The Organized Crime Continuum: A Further Specification of a New Conceptual Model. *Criminal Justice Review*, 8(2), 52.

Hagan, F. E. (2006). "Organized crime" and "organized crime": Indeterminate problems of definition. *Trends in Organized Crime*, *9*(4), 127–137.

https://doi.org/10.1007/s12117-006-1017-4

Hagan, F. E. (2015). Introduction to Criminology: Theories, Methods, and Criminal

Behavior. SAGE Publications.

Higginson, A., Mazerolle, L., Benier, K. H., & Bedford, L. (2014). *Predictors of Youth Gang Membership in Low- and Middle-Income Countries: A Systematic Review.*Campbell Collaboration. Retrieved from

https://www.campbellcollaboration.org/library/predictors-of-youth-gang-membership-in-low-and-middle-income-countries-a-systematic-review.html Hill, P. B. E. (2003). *The Japanese Mafia*. New York: Oxford University Press. Retrieved from https://global.oup.com/academic/product/the-japanese-mafia-9780199257522

Jones, N. P. (2013). *Understanding and Addressing Youth in "Gangs" in Mexico*. Washington, DC: Woodrow Wilson International Center for Scholars, Working Paper Series on Civic Engagement and Public Security in Mexico. Retrieved from https://www.wilsoncenter.org/publication/understanding-and-addressing-youth-gangs-mexico

Jones, O. D., Wagner, A. D., Faigman, D. L., & Raichle, M. E. (2013). Neuroscientists in court. *Nature Reviews Neuroscience*, *14*(10), 730–736.

https://doi.org/10.1038/nrn3585

Kaplan, D. E., & Dubro, A. (2003). *Yakuza: Japan's Criminal Underworld*. University of California Press.

Kelly, R. J. (1997). Political-Criminal Nexus: The United States. *Trends in Organized Crime*, *3*(1), 78–81. https://doi.org/10.1007/s12117-997-1147-3

Kleemans, E. R. (2014). Theoretical perspectives on organized crime. In L. Paoli (Ed.), *The Oxford Handbook of Organized Crime* (pp. 32–52). London: Oxford University Press. Retrieved from

 $http://www.oxfordhandbooks.com/view/10.1093/oxfordhb/9780199730445.001.00\\01/oxfordhb-9780199730445-e-025$

Kleemans, E. R., & De Poot, C. J. (2008). Criminal Careers in Organized Crime and Social Opportunity Structure. *European Journal of Criminology*, *5*(1), 69–98. https://doi.org/10.1177/1477370807084225

Kleemans, E. R., & Van de Bunt, H. G. (1999). The social embeddedness of organized crime. *Transnational Organized Crime*, *5*(1), 19–36.

Kleemans, E. R., & van Koppen, M. V. (2014). Careers in organized crime. In G. Bruinsma & D. Weisburd, *Encyclopedia of Criminology and Criminal Justice* (pp. 285–295). New York: Springer.

Klein, M. W., & Maxson, C. L. (2006). *Street Gang Patterns and Policies*. NewYork: Oxford University Press.

Knox, J., & Gray, D. H. (2014). The National and International Threat of Drug Trafficking Organizations. *Global Security Studies*, *5*(3), 27–34.

Lavezzi, A. M. (2008). Economic structure and vulnerability to organised crime: Evidence from Sicily. *Global Crime*, *9*(3), 198–220.

https://doi.org/10.1080/17440570802254312

Lavezzi, A. M. (2014). Organised crime and the economy: a framework for policy

prescriptions. Global Crime, 15(1-2), 164-190.

https://doi.org/10.1080/17440572.2013.868626

Lyman, M. D., & Potter, G. W. (2006). *Organized Crime* (4 edition). Upper Saddle River, N.J.: Prentice Hall.

Matza, D., & Sykes, G. M. (1961). Juvenile Delinquency and Subterranean Values.

American Sociological Review, *26*(5), 712–719. https://doi.org/10.2307/2090200 Milliken, J., & Krause, K. (2002). State Failure, State Collapse, and State

Reconstruction: Concepts, Lessons and Strategies. *Development and Change*, *33*(5), 753–774. https://doi.org/10.1111/1467-7660.t01-1-00247

Morselli, C. (2003). Career opportunities and network-based privileges in the Cosa Nostra. *Crime, Law and Social Change, 39*(4), 383–418.

https://doi.org/10.1023/A:1024020609694

Morselli, C., & Tremblay, P. (2004). Criminal Achievement, Offender Networks and the Benefits of Low Self-Control. *Criminology*, 42(3), 773–804.

Morselli, C., Turcotte, M., & Tenti, V. (2011). The mobility of criminal groups. *Global Crime*, *12*(3), 165–188. https://doi.org/10.1080/17440572.2011.589593

Murray, J., Farrington, D. P., & Eisner, M. P. (2009). Drawing conclusions about causes from systematic reviews of risk factors: The Cambridge Quality Checklists. *Journal of Experimental Criminology*, *5*(1), 1–23. https://doi.org/10.1007/s11292-008-9066-0

Natarajan, M., Zanella, M., & Yu, C. (2015). Classifying the Variety of Drug Trafficking Organizations. *Journal of Drug Issues*, *45*(4), 409–430. https://doi.org/10.1177/0022042615603391

Ostrosky, F., Díaz, K. X., Romero, C., & Borja, K. C. (2012, October 17).

Neuropsychological profiles of members of organized crime and drug-traffic organizations. Retrieved December 5, 2016, from

https://www.dovepress.com/neuropsychological-profiles-of-members-of-organized-crime-and-drug-tra-peer-reviewed-article-RRFMS

Paoli, L. (2002). The paradoxes of organized crime. *Crime, Law and Social Change, 37*, 51–97.

Paoli, L. (2003). *Mafia brotherhoods: organized crime, Italian style*. Oxford: Oxford University Press.

Paoli, L. (2014). The Italian Mafia. In *The Oxford Handbook of Organized Crime* (pp. 121–141). New York: Oxford University Press.

Paoli, L., & Vander Beken, T. (2014). Organized Crime - A Contested Concept. In *The Oxford Handbook of Organized Crime*. New York: Oxford University Press.

Passas, N. (1999). Transnational Crime. Ashgate.

Pearson, G., & Hobbs, D. (2001). *Middle Market Drug Distribution* (Home Office Research Study No. 227). London: Home Office Research, Development and Statistics Directorate.

Raine, A., Brennan, P., Mednick, B., & Mednick, S. A. (1996). High Rates of Violence, Crime, Academic Problems, and Behavioral Problems in Males With Both Early

Neuromotor Deficits and Unstable Family Environments. *Archives of General Psychiatry*, *53*(6), 544–549.

https://doi.org/10.1001/archpsyc.1996.01830060090012

Reuter, P. H., & Haaga, J. (1989). The Organization of High-Level Drug Markets

[Product Page]. Retrieved January 12, 2017, from

http://www.rand.org/pubs/notes/N2830.html

Savona, E. U., & Riccardi, M. (2015). From Illegal Markets to Legitimate Businesses: The Portfolio of Organised Crime in Europe. Trento: Transcrime & Università degli Studi di Trento. Retrieved from http://www.transcrime.it/pubblicazioni/the-portfolio-of-organised-crime-in-europe/

Sung, H.-E. (2004). State Failure, Economic Failure, and Predatory Organized Crime: A Comparative Analysis. *Journal of Research in Crime and Delinquency*, 41(2), 111–129. https://doi.org/10.1177/0022427803257253

Symeonidou-Kastanidou, E. (2007). Towards a New Definition of Organised Crime in the European Union. *European Journal of Crime, Criminal Law and Criminal Justice*, *15*, 83.

Thrasher, F. M. (1927). *The gang: A study of 1,313 gangs in Chicago* (Abridged edition). University Of Chicago Press.

United Nations. (2000). Convention on Transnational Organized Crime (No.

Assembly Resolution 55/95 of 15 Nov 2000). Retrieved from

http://www.unodc.org/unodc/treaties/CTOC/

UNODC. (2010). *The globalization of crime: a transnational organized crime threat assessment*. Wien. Retrieved from https://www.unodc.org/unodc/en/data-and-analysis/tocta-2010.html

U.S. Department of Justice. (2010). *National Drug Threat Assessment 2010* (National Drug Intelligence Center). Retrieved from

https://www.justice.gov/archive/ndic/pubs38/38661/

van Koppen, M. V., de Poot, C. J., & Blokland, A. A. J. (2010). Comparing Criminal Careers of Organized Crime Offenders and General Offenders. *European Journal of Criminology*, 7(5), 356–374. https://doi.org/10.1177/1477370810373730

van Koppen, M. V., Poot, C. J. de, Kleemans, E. R., & Nieuwbeerta, P. (2010).

Criminal Trajectories in Organized Crime. *British Journal of Criminology*, *50*(1), 102–123. https://doi.org/10.1093/bjc/azp067

Varese, F. (2005). *The Russian Mafia*. New York: Oxford University Press. Retrieved from https://global.oup.com/academic/product/the-russian-mafia-9780199279494 Varese, F. (2006). How Mafias Migrate: The Case of the 'Ndrangheta in Northern Italy. *Law & Society Review*, 40(2), 411–444.

Varese, F. (2010). *Organized crime: critical concepts in criminology*. London; New York: Routledge.

Varese, F. (2011a). Mafia movements: a framework for understanding the mobility of mafia groups. *Global Crime*, *12*(3), 218–231.

https://doi.org/10.1080/17440572.2011.589597

Varese, F. (2011b). *Mafias on the Move: How Organized Crime Conquers New Territories*. Princeton University Press.

Vásquez, J. C. R. (2015). Crime and Punishment in Colombia. In *The Encyclopedia of Crime and Punishment*. John Wiley & Sons, Inc. Retrieved from

http://onlinelibrary.wiley.com/doi/10.1002/9781118519639.wbecpx178/abstract von Lampe, K. (2008). Organized Crime in Europe: Conceptions and Realities.

Policing, 2(1), 7–17. https://doi.org/10.1093/police/pan015

von Lampe, K. (2015). *Organized Crime: Analyzing Illegal Activities, Criminal Structures, and Extra-legal Governance* (1 edition). SAGE Publications.

Walsh, A., & Beaver, K. M. (2009). Biosocial Criminology. In *Handbook on Crime and Deviance*. New York: Springer.

Woodiwiss, M. (2003). Transnational organised crime. In *Transnational Organised Crime: Perspectives on Global Security*. Routledge.

Woodiwiss, M. (2003). Transnational Organized Crime: The Global Reach of an American Concept. In A. Edwards & P. Gill (Eds.), *Transnational Organised Crime: Perspectives on global security*. London and New York: Routledge.

World Bank. (2016). *Country and Lending Groups*. Retrieved from http://data.worldbank.org/about/country-classifications/country-and-lending-groups

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ROLES AND RESPONSIBILITIES

- Content: Francesco Calderoni is Associate Professor of Criminology at Università Cattolica and has extensive experience with Organised Crime and Mafias. Gian Maria Campedelli and Tommaso Comunale are first year PhD candidates in Criminology at Università Cattolica. Both are confident with the existing literature on Organised Crime, Mafias, DTOs and gangs.
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POTENTIAL CONFLICTS OF INTEREST

None of the authors has previously been involved in relevant interventions or has published other reviews on the topic. This systematic review is being conducted as part of PROTON project, as stated in the section above. Other two systematic reviews are conducted within the project but they will be related to other topics.

PRELIMINARY TIMEFRAME

Note, if the protocol or review are not submitted within 6 months and 18 months of title registration, respectively, the review area is opened up for other authors.

Submission of draft protocol: 1 March 2017

Submission of draft review: 1 November 2017

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