



## **Final Program**

### **Seventh Annual Illicit Networks Workshop**

Montreal, Quebec (Canada)

November 16-17, 2015

#### **The scientific committee**

Carlo Morselli (Université de Montréal)

Aili Malm (California State University, Long Beach)

Gisela Bichler (California State University, San Bernardino)

Rémi Boivin (Université de Montréal)

Russell Brewer (Flinders University)

Martin Bouchard (Simon Fraser University)

Andrew Goldsmith (Flinders University)

David Bright (University of New South Wales)



## Program

**Sunday, November 15, 2015**

**19h00-21h00: Evening cocktail**

**Day 1: Monday, November 16, 2015**

**8h00 to 8h45: Arrival and Registration**

**8h45 to 9h00: Welcome/Introduction (Carlo Morselli)**

**Panel 1 / Co-offending: 9h-10h20**

- Peter Carrington (University of Waterloo)

Gender and Age Segregation and Stratification in Criminal Collaborations

The paper uses log-linear distance models to analyze gender and age homophily among all co-offenders aged 5 to 75 in police-reported crime in Canada during 2006 to 2009, in the light of Blau's (1977) theory of social segregation and inequality, Steffensmeier's (1983) theory of criminal sex segregation and stratification, and Crenshaw's (1991) theory of intersectionality. The results indicate that female and younger offenders are not excluded from co-offending *per se* but, consistent with expectations from Blau's (1977) and Steffensmeier's (1983) theories, they are segregated from co-offending with male and (especially) adult offenders. There was limited evidence of gender stratification, and no evidence of age stratification. The interaction of gender and age status in the segregation and stratification of co-offending attenuates their individual effects, contrary to expectations from intersectionality theory.

- Rémi Boivin (Université de Montréal) and Maurizio D'Elia (Montreal Police Services)

Crime Trips in a Metropolis

Network analysis is often used to understand relationships between individuals; however, the main contribution of social network analysis is to put the focus on relationships rather than attributes, regardless of the nature of nodes. This presentation aims to analyze relations between areas of a large Canadian city; specifically, it investigates crime trips in a network of more than 500 census tracts (CT), from offenders' homes to crime locations. In the analysis, a crime trip occurs when an offender commits a crime outside his home CT. Tobler's first law of geography suggests that near things are more related than distant things, and thus that distance should be the primary explanation of crime trips; could macro-criminological perspectives such as routine activity theory and social disorganization further explain the correlates of "flows" of delinquents? Multivariate analysis will be used to assess the relationships between the number of crime trips per dyad and several factors: the number of displacements and geographical distance between CTs, but also various measures of attractiveness (number of bars, parks, schools, metro stations) and sociodemographic characteristics of the population of destination areas (CTs where crimes occurred). Approximately 15,000 crime trips committed by adults and juveniles were analyzed.

- Adrian Leiva (University of New South Wales)

"I'm Gonna Make Him an Offer He Can't Refuse": Pathways into Organized Crime

International research on organised crime is vast and multifaceted, with scholarly literature covering numerous aspects of the global phenomenon, but one area that we know little about is the processes used by criminal organisations (or networks) to recruit members and participants. Within the existing literature, recruitment has been defined as a formal, purposive effort to involve others in an activity (Decker and Chapman 2008). Previous research suggests that recruitment and trust within criminal organisations is based on several key concepts (i.e. individualised trust, reputation, generalisation of trust, kinship and ethnic ties). Nonetheless, there is no existing framework that explains the processes of recruitment and why certain individuals are drawn to organised criminal behaviour. The current project aims to document the processes used by criminal organisations to recruit individuals to partake in illicit activities, and the motivations of individuals drawn to organised crime groups. In this paper, I critically review the literature on recruitment and trust within criminal organisations and develop a theoretical framework to explain recruitment into organised crime groups. The emphasis is on the recruitment sources of criminal organisations, the concept of trust between members, and the criminal trajectory of individuals involved in illicit networks.



- Yanick Charette and Andrew Papachristos (Yale University)

The Network Dynamics of Co-Offending Careers

International research on organised crime is vast and multifaceted, with scholarly literature covering numerous aspects of the global phenomenon, but one area that we know little about is the processes used by criminal organisations (or networks) to recruit members and participants. Within the existing literature, recruitment has been defined as a formal, purposive effort to involve others in an activity (Decker and Chapman 2008). Previous research suggests that recruitment and trust within criminal organisations is based on several key concepts (i.e. individualised trust, reputation, generalisation of trust, kinship and ethnic ties). Nonetheless, there is no existing framework that explains the processes of recruitment and why certain individuals are drawn to organised criminal behaviour. The current project aims to document the processes used by criminal organisations to recruit individuals to partake in illicit activities, and the motivations of individuals drawn to organised crime groups. In this paper, I critically review the literature on recruitment and trust within criminal organisations and develop a theoretical framework to explain recruitment into organised crime groups. The emphasis is on the recruitment sources of criminal organisations, the concept of trust between members, and the criminal trajectory of individuals involved in illicit networks.

**20 minute break (Coffee, Tea, Snacks)**

**Panel 2 / Legal-Illegal Overlap: 10h40-12h**

- Robert R. Faulkner (University of Massachusetts Amherst) and Eric Cheney (Central Washington University)

Collapse of a Secret Society: Formation, Integration, and Dismemberment of Insider Trader Rings

We look at the growth and decline of a criminal-trading ring on Wall Street. Dismemberment from within and dismantling from without are two inter-related features of the collapse of this trading ring involving nearly 100 market trades and 45 traders. Defection from within weakened the network cohesion; it was a major source of disorder followed by external threats from prosecutors to dismantle it. Using actor by event sociomatrices, we analyze three stages of conspiracy evolution: A takeoff stage, a working stage, and a crisis stage. We use actor by event methods to produce standard network measures to describe structural properties of the three different stages of the conspiracy. We track the occurrence of hostile dyads over the conspiracy. The final analysis shows the relationship between the development of hostile dyads over the course of the conspiracy and the relations of betrayal by means of court testimony and legal proceedings using the Quadratic Assignment Procedure and Exponential Random Graph Modeling. We discuss the implications of understanding conspiracy hostile dyads in criminal investigation and targeting illegal networks.

- Maxime Reeves-Latour and Carlo Morselli (Université de Montréal)

Bid-Rigging Networks and State-Corporate Crime

Bid rigging is a criminal process by which competing actors cooperate with each other to breach a bidding system by establishing their own bid-winning designations, threatening free competition and increasing costs at the expense of the purchaser. Due to the hidden nature of these offenses, identifying illegal tacit agreements remains a serious challenge for regulatory authorities. This paper claims that social network analyses represent a highly promising approach in analyzing and assessing big-rigging cartels. Theoretically, this method enable us to improve scientific knowledge on bid-rigging conspiracies' social mechanism and historical evolution. Practically, it allows us to capture the interaction patterns that reveal how firms bid and do not bid with each other over time in a specific market, providing an innovative way to monitor and detect potential collusive behaviour in public procurement. The demonstration rely on social network analyses conducted across 10 000 tender bids that were processed from 1965 to 2014 in the city of Laval, where long-lasting bid-rigging cartels have flourished within the city's construction industry for decades. Future directions in research are highlighted.

- Jacopo Costa (University of Turin)

Actors, Structures and Norms of Corruption: The Network of the "Big Events" Affair in the Italian Context

The paper studies the role of illicit network in the corrupt exchange, through a social network analysis. The empirical case is constituted by the "Big Event" affair, a scandal of corruption exploded in Italy between February and March 2010. Our attention is focused on the relations between the actors, the shape of network and the genesis of the informal rules. The goal is to understand how the network sustains corruption and corrupt exchange. Thanks to the network, it is possible to capture the powers of public officials and politicians, influencing the agency of the public bodies operating in the public works. Thanks to relational structures and



polyadic exchanges, it is possible to neutralize their monitoring, surveillance and sanction tasks. We have empirically analyzed the judicial documents produced between 2007 and 2010 for the “Big Events” investigations, mapping the relations between actors in the network. Then, we identify the most powerful nodes of the net and their specific roles, the types of resources and the direction of the corrupt exchanges. This empirical analysis gives important information on the characteristics of corruption, common to the post-2010 scandals.

- Christine Weirich (University of Glasgow)

The Potential of Social Network and Crime Script Analyses to More Effectively Evaluate the International Illicit Antiquities Market

The international illicit antiquities market presents several unique challenges as an illicit network. The lack of significant available data, combined with the reality that it is generally understood to be a ‘grey’ market (where large portions of the market operate within both legal and illegal frameworks), has hindered our ability to evaluate this market. The goal of this paper will be to consider the benefits of social network analysis (SNA) and crime script analysis (CSA) within the international illicit antiquities market. Previous research utilizing SNA or CSA separately to study the antiquities market will be briefly reviewed. The discussion will then turn to combining these two methodologies to study the market, and how this could result in a more accurate and complete understanding of how the market functions. An encompassing and broad CSA for the illicit antiquities market will be presented, as well as integrated crime scripts and social networks of specific case studies. Because of the nature of this market, each illicit network has the potential to be structured differently and demonstrate diverse network roles and structures. This paper will explore the possibilities of SNA and CSA to gain a more thorough understanding of the illicit antiquities market.

**90 minutes for lunch**

**Panel 3 / Drugs: 13h30-15h00**

- Aili Malm (California State University, Long Beach), Martin Bouchard (Simon Fraser University), Tom Decorte, and Marieke Vlaemynck (University of Gent)

Growing as a Team: An Examination of Self-Reported Cannabis Cultivation Networks

Previous research on drug production networks has primarily relied on police co-offending data. This approach tells us something interesting about networks coming to the attention of the police, but it does not tell us much about undetected and/or small-scale growing networks, which represents the majority of the global cannabis cultivation enterprise (Decorte, Potter & Bouchard, 2011). This study adds to the extant literature by using over 500 self-reported growing networks from a multi-national web survey of cannabis cultivators. Using this unique dataset, the authors examine how network cohesion and structure affect the growing career. Specifically, we test how local network opportunities and constraint affect career longevity and productivity. The study also tests the homophily hypothesis (do similar offenders cluster together?) on the basis of gender, age, and income.

- David Décarry-Héту and Olivier Quessy-Doré (Université de Montréal)

Are Drugs Users Loyal Customers? Repeat Business Between Dyads Of Drug Vendors And Drug Users

Illicit drug markets are known to be very competitive settings where many criminal groups strive to earn a share of the total sales of drugs. These markets have a very low barrier to entry meaning that new groups continually enter the markets while others cease their activities due to law enforcement or pressure from competitors. In this context, drug users are likely to have access to many different drug dealers who will be competing for their business. Drug users may be forced to change their dealer if he/she goes out of business, but may also decide to try a new dealer even when their regular supplier is still available. The aim of this paper is to evaluate the loyalty of illicit drug users towards their dealer. To do so, we will use data collected on cryptomarkets, second-generation illicit markets that specialize in the sale of drugs online. For each drug user, the number of transactions will be divided by the number of drug dealers they purchase from. A multivariate model will also be used to predict the characteristics associated with higher levels of loyalty among drug dealers.

- Giulia Berlusconi, Alberto Aziani (Università Cattolica del Sacro Cuore), and Luca Giommoni (Cardiff University)

Does Size Matter? The Determinants of Heroin Flows in Europe

Several scholars recently investigated international drug trafficking using social network analysis (Chandra and Joba 2015; Boivin 2014). These studies do not quantify the volume of drug flows among countries thus analyzing networks with binary links. This study estimates the size of the heroin flows from and to European countries. Then, it exploits recent advances in statistical models for social networks to identify the factors shaping heroin trafficking. It first assesses the influence of such factors on the presence of a link between any two countries. It then introduces the edge weights (i.e. heroin exchanged) in the analysis, moving forward in the analysis of drug trafficking networks. The methodology adopted allows for a better understanding of the generative processes and potential evolution of trafficking routes. The study shows that opportunity theory and social proximity are keys in explaining the direction and the size of heroin flows in Europe. Moreover, it demonstrates the benefits of including weights in the analysis of drug networks.

- David Bright and Rachel Sutherland (University of New South Wales)

“Just doing a favor for a friend”: Social dealing of ecstasy through friendship networks

The current project focused on a little known phenomenon in retail level illicit drug markets: the ‘not for profit’ supply of illicit drugs within social networks. The aims of the study were: (1) To determine the role of social networks in the supply of ecstasy at retail level; and (2) To investigate the network structures which facilitate the supply of ecstasy across social networks. Selection criteria included recent (last 6 month) use of ecstasy and supply of ecstasy to friends. Participants were administered two sets of questions: a social network interview which mapped their network of friends (i.e., ego networks), and a survey focused on their drug use and drug dealing. For each ego network, we calculated the proportion of individuals who used drugs and three brokerage measures (effective size, constraint, efficiency). We hypothesised that higher levels of ego brokerage (high network efficiency, low network constraint) would predict larger bulk purchases of ecstasy, more frequent dealing, dealing in larger quantities of ecstasy, dealing to a larger number of individuals, and greater stockpiling of the drug. We discuss the implications of the results for our understanding of the dynamics of illicit drug markets and for developing prevention and harm reduction strategies.

**Supper at around 19h**



**Day 2: Tuesday, November 17, 2015**

**Panel 4 / Security and Correctional Issues: 9h-10h20**

- Morgan Richard Burcher and Chad Whelan (Deakin University)

Understanding Social Network Analysis as a Tool for Crime Intelligence

Over the past two decades an increasing number of researchers have applied Social Network Analysis (SNA) to various ‘dark’ networks. This body of research would suggest that SNA is capable of revealing significant insights into the dynamics of dark networks, including identifying critical nodes and unique approaches to disruption. However, there has so far been very little research into whether and how police and security agencies can apply SNA in an operational context to realise these potential applications. This paper aims to go some way toward advancing our knowledge of the potential operational applications of SNA by drawing on qualitative interviews with criminal intelligence analysts from a number of agencies in Australia. Interviews were conducted with experienced criminal intelligence analysts, including those who have used SNA as well as those who have not for various reasons. The paper aims to advance our knowledge of the operational context of criminal intelligence analysis through exploring the experiences of analysts and their understanding of SNA. It is argued that considerable work remains to be done to bridge the gap between research and practice in this field.

- Benoit Dupont (Université de Montréal) and Chad Whelan (Deakin University)

Taking Stock of Networks Across the Security Field

Security is increasingly recognized as being pursued through networks of public, private and hybrid actors or nodes. Research on security networks and related themes such as partnerships has therefore grown considerably in the last decade. This body of research extends to what one of us previously called local, institutional, international and virtual security networks, although much of the research has focused on networks in the context of ‘plural’ security and in the field of ‘low’ policing. Security network research now encompasses researchers using social network analysis as well as those calling attention to the organizational dynamics of networked forms of security governance. However, the vast majority of research employs the network concept as a metaphor to suggest a relationship between a set of security nodes, without examining the structural pattern of these relationships or the organizational properties of security networks. The different uses of the network concept have also generated some confusion about the application of network theory across the security field. This paper attempts to address these issues by clarifying the fundamental concepts of a network perspective and revisiting a typology of security networks. We review research on the application of network perspectives across the security field, evaluate theoretical and empirical trends, and give directions for future research. We conclude by highlighting the importance of taking stock of networks to better understand the governance of security.

- Andrew Goldsmith and Russell Brewer (Flinders University)

Theorising Digital Drift: The Implications of Seduction, Serendipity and Surprise in Internet-mediated Encounters

This paper engages theoretically with socio-technical aspects of Internet use. Its focus is the identification and specification of features of the Internet and Internet use that can be indicative, and facilitative, of risky behaviours (including actual crimes) from a regulatory perspective. The direction of inquiry is informed by the notion of *digital drift* as developed by us (Goldsmith and Brewer 2015), particularly that individuals involved or immersed in various activities in digital environments can “almost by accident” get drawn into harmful or criminal relationships and actions. These seemingly casual transgressions, it is proposed, can emerge from constellations of features of use, including membership of communities of practice, as well as the structures of Internet environments (eg algorithms, hyperlinks, multiple hubs). If this assertion is correct, then it presents as problematic our current understanding of the drivers of a range of Internet-mediated crime. For example it calls into doubt the applicability of traditional notions of criminal responsibility to actions and deeds that exhibit, it can be argued, low intentionality. It also requires us to more closely consider the adequacy of crime prevention measures in relation to Internet-mediated crime.



- Martin Bouchard (Simon Fraser University), Jacob Young (Arizona State University), Derek Kreager (Penn State University), David Schaefer (Arizona State University), Dana Haynie (Ohio State University), and Gary Zajac (Penn State University)

#### The Antecedents of Social Status in a Prison Network

Seminal qualitative studies of prison culture established competing hypotheses for the origins of status in inmate society. The deprivation perspective held that inmates who alleviated the pains of imprisonment through greater prison experience, protection, or the provision of material goods and services would hold the highest status positions in the informal structure. Alternatively, the importation perspective argued that inmates' behavioral and sociodemographic biographies (e.g., criminal history, race, community ties) were paramount in structuring prison status hierarchies. In this study, we take a network approach to measuring perceived power among 144 inmates (70% of the total inmates available) held in a detached unit of a Pennsylvania medium-security men's prison. The relatively high response rate and the fact that respondents were each provided with a complete list of the other inmates in the unit allowed us to approximate the social structure of the unit as a whole. Social status is measured in two ways. The first is derived from a count of nominations by other inmates in the unit using the question "who do you get along with most?", tapping into the concept of social status via an indicator of sociometric popularity. The other was created from an explicit question asking inmates about who had power or influence in the unit – regardless of whether or not they got along with them. We use a statistical network model (i.e., exponential random graph model) to estimate the correlates of power in the unit and test the longstanding hypotheses of deprivation and importation theories, including indicators of time served, sentence length, race, and criminal embeddedness (e.g., gang membership) prior to respondents' current incarceration.

**20 minute break (Coffee, Tea, Snacks)**

#### **Panel 5 / Methodological Issues: 10h40-12h**

- Gisela Bichler (California State University San Bernardino), Daniel J. Birks (Griffith University), Jillian Van de Merghel, Jennifer Hagala, and Brittany Rios (California State University San Bernardino)

#### Validating Agent-Based Models of Transnational Crime

Computational agent-based models (ABM) allow researchers to construct artificial worlds inhabited by populations of heterogeneous actors who interact with one another to achieve individual goals. This allows us to test hypotheses about what we think influences social interactions at the individual-level, and then, observe what happens to the network. Thus, ABM are particularly attractive for the study of transnational crime: they permit testing the effects of crime control strategies when experimental research is untenable. However, a critical challenge exists; we must first validate the model. That is, we must ascertain whether the behavioral rules we set produces a complex system with outcomes that reflect the world it is meant to represent. Ideally, validating an ABM would involve comparing simulated networks to observed data. Yet, illicit networks are difficult to document in their entirety. This is particularly true for our study, as we seek to model the dynamics of global trade in military-grade small arms and light weight (SALW) weapons among 224 nations/territories. In an effort to address this issue, we present alternatives for validating an ABM of transnational crime—QAP correlations, comparative structural analysis, and Benford's Law of First Digits.

- Johan Koskinen, Chiara Broccatelli, Gemma Edwards, Kathryn Oliver, Garry Robins, Rachel Stevenson, Peng Wang (Mitchell Centre for SNA, University of Manchester)

#### Multilevel Exponential Random Graph Models for Partially Observed Covert Networks

Exponential random graph models (ERGM) offer a statistical approach for testing commonly hypothesised structural properties of covert networks such as centralisation, clustered, and connectivity. However, covert networks are likely to be only partially observed and have varying visibility of different nodes and ties. Additionally, with covert networks typically being organised around illicit activities and memberships, the distinction between dyadic ties personal ties, such as collaboration, on the one hand, and participation, on the other, becomes particularly important – do actors organise themselves in closed structures in order to promote trust or are closed structures an artefact of joint event participations? Bayesian approaches for ERGMs for partially observed networks may be applied to multilevel networks to tackle the joint issues of affiliations confounding dyadic relations and the partial nature of data. We propose that this approach also suggests a novel multilevel snowball sampling paradigm that affords observing actors not only through tracing their contacts to



other actors but also through tracing their memberships in groups and participation in events. We elaborate on these approaches in the context of a data set on English Suffragettes with a view to testing the robustness of inference to assumptions about the missing data mechanism.

- David Robinson (Inland Revenue)

Entity Resolution of Criminal Networks: A Model to Counter Uncertainty

Entity Resolution (ER) is a fundamental element to any analytical endeavour focussing on criminal networks as criminal data is often comprised of heterogeneous datasets of varying data completeness and misinformation, creating high uncertainty. Traditional ER models focus on pair equivalence from a non-network perspective, reducing the real-world attributes available to measure equivalence and therefore under-performing on high uncertainty criminal data. ER models have been built that use graph attributes (Bhattacharya & Getoor, 2007), iterative resolution (Whang, Euijong, Menestrina, Koutrika, Theobald & Garcia-Molina, 2009), or canopy indexing (Hernandez & Stolfo, 1995; 1998; McCallum, Nigam & Ungar, 2000), but none have been published that use these technologies in combination focusing on the resolution of criminal data, and the unique qualities it presents. The novel ER model developed is network based and iteratively exploits social context for additional attributes such as community, shared neighbour metrics, and distance. These attributes are used in addition to non-graph attributes for indexing, equivalence assessment and decision-management in an iterative sense. All criminal analytics requires a foundation of data that is accurate enough to explore or test hypotheses robustly, and the ER model discussed is specifically designed to identify “low signal” equivalence to significantly enhance such applied analytics.

- James A. Densley (Metropolitan State University) and Thomas U. Grund (University College Dublin)

Networks and Selective Influence: A Model of the Age-Crime Curve

One of the strongest and most consistent patterns in criminology concerns the association between age and crime. Empirical studies have consistently shown a sharp incline in offending behavior during early adolescence (from around the age of criminal responsibility), peaking during the mid/late teenage years and then declining, steeply at first (to the mid 20s) and, thereafter, more steadily. Evidence for this “age–crime–curve” has been found across offenses, countries, ethnicities and historical eras. Developmental theorists explain this remarkably stable pattern with a multitude of sociological, psychological and biological changes during adolescence. Others argue there is a direct effect of age on crime. Strikingly, these theoretical explanations typically regard individuals in isolation from each other. Building on the principles of analytical sociology, we advance a new perspective that puts individuals within their network contexts and considers social influence. We use compartmental models to demonstrate that the “age–crime–curve” naturally follows the co-occurrence of two general principles: 1) individuals interact with similarly aged others and 2) younger individuals are more susceptible to influence than older individuals. As individuals grow older, more and more of their network neighbors influence them to commit criminal offenses. At the same time, decreasing susceptibility prevents individuals from adopting the criminal behavior of others and ultimately reverses the association between age and crime. Our model suggests that network context and selective influence suffice to generate the “age–crime–curve”.

**90 minutes for lunch**

**Panel 6 / Gangs, Paramilitary Groups, and Terrorism: 13h30-14h50**

- Jason Gravel and George Tita (University of California, Irvine)

Gangster by Structure: Is Gang Membership a Proxy for Criminal Embeddedness?

It has long been thought that the reason why gang membership is associated with greater delinquency and violence is that gang members are embedded in networks that both influence and facilitate their criminal involvement. In this study we explore two assumptions behind these findings: 1) that gang members are more criminally embedded than non-gang members and 2) that when structural network features are held constant, gang members will engage in greater amounts of violence compared to non-gang members. We use a large co-offending network that encompasses everyone arrested for any type of offense in Long Beach, California between 2008 and 2013. Our hypothesis is that it is possible to identify individuals who "structurally resemble" gang members, and we expect that these individuals will exhibit similar involvement in violence. We discuss the implication of our findings for gang research, specifically in terms of how gang membership can be defined from a network perspective.



- Marie Ouellet, Mackenzie Hart, and Martin Bouchard (Simon Fraser University)

From the 'Middle-Up'? The Structure of Al-Qaeda Attacks Before and After 9/11

A key debate that once characterized assessments of organized crime groups has re-emerged in the field of terrorism studies – are illicit networks governed by centralized or decentralized processes? Extending from Al Qaeda's evolution post-9/11, prominent terrorism scholars have been divided on whether the group has transitioned into autonomous cells or retains a hierarchical structure. Despite extensive dispute, assessments have yet to use network data to empirically observe the group's structure over time. Rather, both sides have referred to three high-profile Al Qaeda attacks as supporting their respective claims. We capitalize on this, mapping these three networks to examine their organizational structure. Further, we also create a reference group of three major Al Qaeda attacks that were executed prior to claims of structural evolution. Using Exponential Random Graph Models we examine the drivers of tie formation across these two periods. Results demonstrate that being an Al Qaeda central staff member played an important role in the formation of ties, regardless of when the attack occurred. However, only in the pre-War on Terror period, did logistics operate in compartmentalized cells, with high inter-connectivity and few ties to other offenders. Conversely, only in the post-9/11 period, were local leaders more likely to connect with others.

- Gabriela Manrique (Université de Montréal)

How the State Exploits Organized Crime: The Network of the Paramilitary Group Heroes of Montes de Maria in Colombia

Studies on combatants of armed conflicts since the last decades of the XX Century show the role of social networks in the recruitment and mobilization of men of lower classes by militias and paramilitary groups. Based on field work in the region Montes de Maria in Colombia, on interviews with former combatants and documentary analysis, this article analyses the network of the paramilitary group Heroes of Montes de Maria, focusing on the study of the network of combatants. I show that beyond the role of social networks in recruitment, the network of this paramilitary group show the role of military battalions in deploying a masculine workforce from rural communities and the urban context of work resourcefulness to work in the illegal sector of paramilitary violence. The State exploits the resources of organized crime to combat guerillas and peasant movements, promoting white-collar crime and the creation of a route of drugs exportation by the Morrosquillo Gulf. Violence against peasant movements and "outsiders" can be considered a dirty work of social control reproducing the structures of class, gender and race, in addition to imposing a development model favoring agro-industrial companies in a context of economic globalization.

- Julia Semmelbeck (University of Mannheim) and Clayton Besaw (University of South Florida)

An Organizational Model of Crime-Terror Cooperation

Why do some terrorist organizations collaborate with organized crime, while others do not? We seek to answer this question and, thus, shed some light onto issues of terrorist strategy and the modus operandi of terrorist groups. Focusing on one-off operational collaboration terrorist groups collaborate with organized crime to increase their revenue and, as a consequence, their operational repertoire. We argue that the decision to collaborate or not is a function of the organizational structure of the terrorist group. Along the dichotomy of hierarchical and networked organizations, we theorize that hierarchies are more likely to collaborate with organized crime. We build our model around three explanations. We argue that terrorist groups face secrecy, political, and technical constraints, which affect their behavior. Results show that having a hierarchical structure significantly influences a terrorist group's likelihood to collaborate with organized crime.

**Concluding Remarks: 14h50-15h (Carlo Morselli)**

**THE END**