



DEPARTMENT OF SOCIAL SCIENCES
AND ECONOMICS

SAPIENZA
UNIVERSITÀ DI ROMA

ISSN 2532 -117X

Working papers

**DIPARTIMENTO DI SCIENZE
SOCIALI ED ECONOMICHE**

[online]

**PhD COURSE IN
APPLIED SOCIAL SCIENCES
WORKING PAPERS SERIES
n.13/2018**

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Exploring New Methodologies of Analysis
Through Literature Review**

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CF 80209930587 - P. IVA 02133771002

Crime-terror Nexus: Fact or Fiction? Exploring New Methodologies of Analysis Through Literature Review ¹

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Crime-terror nexus has been a long debated topic. Despite recent and less-than-recent research, scholars and operators (i.e. intelligence agencies, law enforcement, policymakers) are still convinced that these two aspects of social deviance must be treated and analyzed separately. It is aim of this working paper to assess the issue through a literature review, showing whether terrorists rely on criminals or criminal activity to achieve their illegal goals or not, especially from a logistical point of view. Moreover, the general methodology of investigation and intelligence assessment will be reviewed, showing the most up to date techniques. While it will be subject of further investigation to develop a proper methodology in terms of Key Threat Indicators, Network Analysis, Key Risk Indicators and Structured Analytic Techniques are reviewed, with particular attention at their application in the field of crime-terror studies. As a matter of fact, this paper will show that crime-terror nexus is real, especially among the new generations of jihadi fighters. Accordingly, law enforcement agencies and intelligence requires the most up to date techniques to deal with a complex and ever-changing environment.

CRIME-TERROR NEXUS: THE BEGINNING

The term Crime-Terror nexus is not new. As Basra, Neumann and Brunner note referring to the studies of Picarelli, “The concept of a crime-terrorism nexus is not new. It emerged in the early 1990s after the collapse of the Soviet Union and the birth of the Information Age. Amidst shifting geopolitics and newfound transnational reach, non-state actors adapted criminal modus operandi to further their aims. As early as the 1980s, during the rise of Pablo Escobar and the Colombian drug cartels, scholars tried to define ‘narco-terrorism’ and debated whether it represented a true case of blurring criminal-terrorist lines” (Basra, Neumann and Brunner 2016).

Across her studies, Makarenko developed and refined a model in which she examines the convergence between terrorism and organized crime, which barely fits with modern day terrorism (i.e. what the Italian intelligence defines “molecular terrorism”) but has been widely accepted among scholars. She argues that terrorism and organized crime converge at first hand in an alliance, then in an appropriation of tactics and operational convergence to finally morph into an evolutionary convergence where the two different organizations end to try to follow their own goals (Makarenko 2014). There are strong evidences that support her theory. For instance, in 2002 the Italian Camorra and other organized groups supported Palestinians and other North African terrorist cells providing weapons in return for narcotics. The IRA, more recently, has been supported by the Ndrangheta in money laundering activities, and ISIS relied on

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Ndrangheta to sell antiquities stolen from Iraq in Western Countries. Examples are numerous, and all these examples support and show contacts and ties among the two entities. At the very beginning of the exploitation of terrorism as a political weapon, especially in the jihad domain, clerics seemed to reject the possibility of using criminal techniques to achieve political goals but as the Jihadist movement became global and new clerics or political prominent figures started to rethink at jihad² as an act of war against the west and other countries (reinterpreting the concept of jihad al kubra and jihad al saghrira), many influent Arab and Afghani clerics started to believe that pursuing jihad with even the weapons of crime was allowed by shari'a law.

It is difficult and way distant from this article to address every single step that has contributed to modify the jihadi movement from, for instance, Ibn Hanbal to Ibn Taymiyya to modern era. More recently, as Basra, Neumann and Brunner notes: "Anwar al-Awlaki, the radical cleric who helped to create al-Qaeda's online magazine Inspire and incited young Western Muslims to become jihadist 'lone wolves' during the late 2000s, repeatedly told his followers that 'stealing from your enemies' is not only permitted but, in certain cases, obligatory; that Muslims are 'not bound by the covenants of citizenship'; and that any effort to support the jihad, may it be by stealing or killing the disbelievers, must not be condemned as long as it takes place in the dar al-harb or the 'lands of war'".

Furthermore, Mullah Omar insisted that while it was not a duty of the Taliban to protect the so called "kafir" (sinners) from drug addiction, despite a severe crackdown on poppy cultivation, he never intended to stop cultivation since many small farmers were too dependent from illegal opium trade. So, on one hand, Mullah Omar imposed severe restrictions and taxation on opium trade and cultivation while on the other hand he allowed the production that must be destined to foreign countries in order to make money for farmers and destabilize in the long run the western countries and society, forbidding the use of the product only in the domestic arena (Corti and Swain 2009).

These two examples are useful to understand that in the jihadist domain the widely dispersed network of thinkers and religious prominent figures are often reinterpreting reality and dogmas to achieve political goals, as it happened recently with the new propaganda of ISIS. As a matter of fact, it is impossible to separate "siyasa" (politics) from "din" (religion) while shari'a law, fatwas or other important religious statements act often as a bridge to legitimize these ties, at least in the vision of most radical clerics. This is where ideology meets operative needs and clandestine support. As Wang notes, there are similarities between terrorist and criminal organizations even in the way they finance their activities, either through licit channels or not: "there are a number of reasons and opportunities that enable terrorist to embrace organized crime as a main source of funding. First and foremost, both organized criminal organizations and terrorist groups share numerous inherent organizational and operational similarities" (Wang 2010). These similarities include extreme violence, kidnappings, assassination, secret operations, interchangeable recruitment pools, resilience.

Among these activities, there is the illicit financing of activities through drug smuggling, which is an important component not only for well settled organizations such as Hizb Allah, but also for homegrown jihadists belonging to the second or third generation of migrants that passes through a process of radicalization. For them, petty crimes such as drug smuggling constitute an important source of financing for their activities that ranges from daily needs to financing terror plots as it happened in 2004 with the Madrid bombing attack, largely financed with hashish trade. As a matter of

² One of the most considered author among old jihadi thinkers was Ibn Taymiyya (1263-1328) whose effort to return to a literal interpretation of the Quran has been widely debated among arab scholars.

fact, the inspiratory of Barcelona attack in 2017, Abdelbaki el Satty, was prosecuted for hashish trafficking five years ago.

As Sala and Alda point out “There are many examples cited to demonstrate these observations are not coincidental, but indicative of a trend: a trend that is a growing threat to the security interests of many nations”. The authors explore the intersection between criminal networks and terrorism by grouping the actors into three main categories (Alda and Sala 2014):

- *coexistence* (they coincidentally occupy and operate in the same geographic space at the same time)
- *cooperation* (they decide that their mutual interests are both served, or at not least severely threatened, by temporarily working together)
- *convergence* (each begins to engage in behavior(s) that is/are more commonly associated with the other)

Instead, the European Union approach is focused on convenience for both parties: “research has highlighted that most operational requirements of terrorist groups have benefited from a connection to OC; so long as there is money to pay for OC services, connections could be established at every level”. As Makarenko pointed out in 2007 “The depth of the relationship between OC and terrorism is often dependent on the nature of the geographic region in which any specific nexus operates”. In fact, the role of the State is of very much importance in tackling the convergence of these two phenomena. As Shelley, Louise and Picarelli underlines “transnational crime and terrorism are malevolent non-state actors that exploit failures in a state-centric global system, such as the limitations of sovereignty, legal jurisdictional boundaries and the safe havens that failed or weak states represent” (Shelley, Louise and Picarelli 2005). Accordingly, there seems to be a growing tendencies for organized crime and terrorism to converge or adopt similar tactics not only in the western societies but also in what scholars define “sanctuaries” (i.e. particular places where non state actors are predominant entity and recognize them as safe shelters).

GROUPS AND INDIVIDUALS. TERROR FROM DIFFERENT PERSPECTIVES

Among the vast and important international literature on the topic of terrorism, very significant relevance has been given to organizations, groups and networks that could harm national security and impose their agenda globally or locally. As Matusitz points out “What comes next is the evidence that, unlike a few terrorists acting solo like the Unabomber (Waits and Shors 1999), many terrorists really did and still do operate through networks (Rosenthal and Muller 2008)” (Matusitz 2008).

Yet, present-day terrorist operatives are often activated by themselves, willing to hit society on specific purposes that are only in part next to the radical jihadi preachers’ ideas. There is an inevitable merger between terrorist organization’s needs and individual expectations, and propaganda is often the right way to connect, even in the cyber domain, groups and individuals. Quoting Rajaat Al Tawheed, a British jihadist group, “Sometimes people with the worst pasts create the best futures”.

As Basra, Neumann and Brunner point out: “What we have observed in the case of jihadist recruits in Europe is not the convergence of criminals and terrorists as organisations but of their social networks, environments, or milieus. In other words: rather than being one or the other, criminal and terrorist groups have come to recruit from the same pool of people, creating (often unintended) synergies and overlaps that have consequences for how individuals radicalize and operate. This is what we call the

new crime-terror nexus”. This approach highlights a much more realistic situation, where networks and individuals are often interconnected by chance and not intentionally, where synergies are welcomed because of a win-win situation, that maximize their mutual interests. Their findings are interesting: most of the individual are male and predominantly young, with an average age of 25. Sixty-seven percent of the sample travelled to Syria as foreign fighters, and 38% were involved in domestic terror plot. As a matter of fact, the 68% of the sample were involved in petty crime (fraud, drug smuggling, identity theft etc.) and 65% had a violent history. Thirty percent had experience with firearms and 57% had been incarcerated at least in one occasion. Accordingly, they end in highlighting the fact that models proposed by Makarenko and Shelley and Picarelli, described above, does not match with modern-day terrorism, where the action is often carried out not only with a top-down approach, more similar to terrorism in the Eighties and Nineties, but in the form of “dispersed, autonomous cells who pursue strategies that are not always –or necessarily- aligned with those of their leadership”.

Moreover, groups and individuals tied to criminal networks are often also tied to criminal activities by their own willing and not the one of their alleged leadership³ (Daniella Bove and La Monica 2011, Aronson 2014). Therefore, groups and individuals pursue different aims despite being united both by economic interests and ideology. Not all historic terrorist organization studied along the years agree with being associated with murders or drug smuggling (i.e. ETA), but modern terrorism seems to exploit prisons as a way of pooling together new contacts and opportunities.

Some examples may be drawn from the past, for instance when FARC traded arms with organized crime in return for narcotics: in December 1988 Jamaican authorities sized a vessel carrying 10 tons of weapons to FARC, and interrogation showed that the Colombia drug dealers made a deal with FARC. Even if relationships with smugglers and FARC deteriorated across time, during the Eighties there was surely a convergence between the two groups, bringing a win-win situation for both. Yet, modern day criminals in Mexico seemed to have acquired tactics of terrorist groups.

As Beittel points out: “Occasional use of car bombs, grenades, and rocket-propelled grenade launchers such as the one used to bring down a Mexican army helicopter in May 2015 continue to raise concerns that some Mexican drug traffickers may be adopting insurgent or terrorist techniques” (Beittel 2017). This may foster the idea that not only the new crime terror-nexus must be addressed differently at geographical level, but also must be investigated from different perspective, namely those of relationships, network structures, network composition in terms of how ideas and methods are shared among mobsters and terrorist. While jihadist terrorism has evolved into “molecular” terrorism (Minniti 2015) other form of terrorism might have taken different paths assuming their own dresses belonging to different cultures, historical background, law enforcement or political strategy.

Mexico is an example where terrorism, namely the fact of instilling terror into other person, is used not with revolutionary goals but to maintain a criminal status-quo. This is why, to address the issue of terrorism we must understand that knowing the crime-terror background is fundamental to start studying the conformation of social networks, and their metrics, in order to scientifically prove convergence, ties, strength, but also vulnerabilities of those networks independently from different geographic or social background. Accordingly, social network analysis is a world-wide recognized method

³ See Daniella Bove-La Monica “Al Qaeda and Drug Trafficking, a dangerous partnership”, Policy Mic, 4 June 2011 and Aronson S. “AQIM’s Threat to Western Interests in the Sahel”, CTC Sentinel, 7 April 2014.

to study this issue, penetrating the structure of networks up to the individual and maybe a useful tool in preventing violent escalation.

UNDERSTANDING GROUPS AND INDIVIDUALS: SOCIAL NETWORK ANALYSIS IN CRIME-TERROR NEXUS STUDIES

The idea of using network analysis in sociology is not something that belongs to modern times. The first scholar to apply network analysis was Jacob Moreno in 1916. Another important contribution came from Granovetter whose studies showed that individuals with weak ties in labor market have higher probability of finding a well-paid job instead of those who focus on strong ties such as those among family members.

Many recent publications highlighted the important role of network analysis as a powerful criminal investigative tool. As Calderoni points out “Law enforcement agencies increasingly use Social Network Analysis (SNA) for criminal intelligence, analyzing the relations among individuals based on information on activities, events, and places derived from various investigative activities SNA provides added value compared to more traditional approaches like link analysis, by enabling in-depth assessment of the internal structure of criminal groups and by providing strategic and tactical advantages” (Calderoni 2014).

While most of the current evaluations are based on centrality measures instead of subgroups (Calderoni 2014), network metrics might play crucial roles in identifying possible connections among criminal organizations and terrorism, showing how different clusters interact among one another and how different mafias may support logistical help for terrorist needs, not only from an operational point of view but also from social comparison perspective. As a matter of fact, as Castiello underlines, “Further studies confirms the presence of same topological characteristics in scale free networks also in some terrorist organization (Al Qaeda) and drug-trafficking organization” (Castiello 2015).

Moreover, as Sageman suggest, a good strategy of attack using network theory could be hitting nodes and high-betweenness nodes: “However, it is vulnerable to targeted attack, namely against its hubs. If the hubs are destroyed, the system breaks down into isolated nodes” (Sageman 2011). However, network theory showed limitation under several points of view, from data collection to node and ties metrics that may affect a wider sociological and qualitative analysis (Castiello 2015).

Moreover, network analysis tend to show a pre-defined set of data without putting into evidence the modification of networks through time ($t_1, t_2 \dots t_n$), since –especially in criminal or terrorist organization- network structure tend to evolve together with law enforcement actions (such as dismantling previous organization), economy (new sector to penetrate), society (ethnics and deals among new criminal syndicates, such as those that today connect the Albanian mafia with Brazilian mobsters in cocaine traffic).

To sum up, network analysis might be a powerful tool to investigate networks and a useful tool to settle a proper methodology to assess the issue of crime-terror nexus. Clusters and relations among nodes might highlight and put together complex dataset to really penetrate, realistically, the nature of groups and even isolated individuals. Nevertheless, it has its own drawbacks. Accordingly, in order to assess a complex set of modern methodologies to investigate crime and terrorism, whether they are tied or not, another instrument should be revised as a tool for an analyst’s toolbox: key threat indicators.

FROM KEY RISK INDICATORS TO KEY THREAT INDICATOR. AN EX-ANTE APPROACH

As Davies, Finlay, McLenaghan, Wilson put it “KRIs are measurable metrics or indicators that track exposure or loss, or, as one person put it, “trouble”. Anything that can perform this function may be considered a risk indicator. The indicator becomes key when it tracks an especially important exposure, or it does so especially well, or ideally both” (Davies, Finlay, McLenaghan and Wilson 2005). The OECD defines it as “A risk indicator is an indicator that estimates the potential for some form of resource degradation using mathematical formulas or models” while the Committee of Sponsoring Organizations of the Treadway Commission (COSO) defines it as “....a metric used by organizations to provide an early signal of increasing risk exposures in various areas of the enterprise.”

They goes together with alarm indicators that put into evidence a real threat to national security, thus enabling the production of specific warnings (DIS 2013). It is difficult to track the early origins of how KRIs and KPIs (Key Performance Indicators) began to be accepted among scholars and business enterprises. Even if they differ from each other in the sense that KPIs are used to measure performance (how well something has been done) while KRIs are a measure of risk (the possibility of future adverse impact, that has an established probability and an estimated damage), the use of indicators in the sociological domain, especially in those related to mafia and terrorism, is important in any analyst toolbox to evaluate the probability of risk that an event may happen. They are also useful to monitor peculiar or under review situation that might harm national security starting from the basis of how these indicators change through time.

They are a really good example of how statistics may be applied to evaluate phenomena with an ex-ante approach. Early warning indicators are fundamental to any law enforcement and intelligence agency. They let operators to act timely preventing major impairment to national security. KRIs are used to measure the uncertainty of a project or –we add- peculiar sociological situation related to uncertainty such as terrorism, criminal organizations or military escalations. According to the Institute of Operational Risk “Any piece of data could conceivably be viewed as an indicator. However, the use of too much data can be as dangerous for an organisation as too little. Accordingly, it is imperative for the organization to establish very specific characteristics for what will be adopted as indicators, separating broad data from specific metrics used to indicate changes in exposure levels.”. Indicators has different desirable characteristics. They must be:

- *Relevant*, in the sense that they must have specific focus, generic focus or be very general.
- *Measurable*, in the sense that they must measurable with high degree of certainty and on a repeated basis.
- *Predictive*, in the sense that they have to predict what is going to happen instead of inferring that something is changing.
- *Easy to monitor*, in the sense that data used for indicator should be simple and relatively cost effective to collect, quality assure and distribute and relatively easy to interpret, understand and monitor.
- *Auditable*, in the sense that they must be easy to verify
- *Comparable*, in the sense that they must be comparable to a sort of benchmark.

Moreover, KRI must be prioritized (normally in three or five level of thresholds) and there is no right or wrong answer for how many indicators should be set, bearing in

mind that too few may not deliver a clear picture while too many may present an overly confusing picture.

As a matter of fact, KRIs and their possible evolution, key threat indicators (KTIs), derived from computer science and applied science, then became very useful in monitoring risk within enterprises and a very important tool in enterprise risk management. By the way, KRI are a useful tool for intelligence too. One of intelligence agencies main task (and, insofar, law enforcement even if their political mandate is different) is to predict future event that may harm national security. As in happens in enterprise risk management, KRIs might result a useful tool to predict events tied to criminal or terrorist organization. Since this paper is aimed at presenting literature in analytic methodologies to asses the issue of crime-terror nexus, investigating both crime and terror to understand whether this connection exists or not, KRI must be included among modern techniques such as network analysis to prevent and better understand whether we are in presence of a nexus or real level of threat. It will be the aim of further research to develop a proper methodology to create “key threat indicators” that may highlight possible threats to national security coming from terrorism, organized crime or both by gathering data or behavioural analysis and identifying indicators thus alarming timely competent authorities in case of high risk or threat.

OTHER METHODOLOGIES: STRUCTURED ANALYTICS TECHNIQUE AND BEYOND

In order to assess a proper analysis in the field of intelligence and law enforcement, especially regarding the theme of organized crime, terrorism or crime terror nexus, there are also a number of various analysis technique developed along the years to better respond to the task of solving puzzles in complex environment⁴. Among those methods of investigation there are structured analytic techniques that are elaborated to externalize the individual analyst’s thinking, in a manner that it is easy to report, be shared and even easily critiqued by peer reviewers. Most of the analysis such as red team⁵ analysis are performed in team and are really useful to evaluate and validate threats and deal with incomplete or deceptive information, exactly like those kind of data that underlies when assessing the issue of terrorism or organized crime.

Moreover, with the rise of dark web, where a possible link between organized crime and terrorism is virtual and totally anonymous, structured analytic technique such as ACH (analysis of competing hypotheses) could be a winning tool to tackle threats, understanding the environment and figuring out whether weak signals or other indicators, represented as evidences in the analysis, match with previous hypotheses made by the analyst. ACH is a very useful tool to investigate crime-terror nexus, and it is widely accepted among the international community, especially in the field of intelligence analysis.

It is a particular technique that deals with complexity, is measurable since most of the evaluations are weighted by consistency of hypotheses and evidences, and restitutes a reliable scenario. As a structured analytic technique, it deconstructs analysts’ way of thinking, avoiding typical individual biases such as confirmation bias. Nevertheless, as Pope and Josand (and Heuer himself, who was the founder of ACH) underline “In simple terms, ACH requires the analyst to simultaneously evaluate all reasonable

⁴ For a complete review of structured analytic techniques see Heuer, Richard J Jr. and Pherson Randolph H. 2011. *Structured Analytic Technique for Intelligence Analysis*. Washington DC: CQ Press.

⁵ Red team is a particular structured analytic technique that let small group to focus on possible action taken by the enemy thinking as the enemy could behave. Critical thinking is fundamental to highlight possible action that may harm national security or shed light on security vulnerability.

hypotheses and reach conclusions about their relative likelihood, based on the evidence provided. Heuer acknowledges that while this holistic approach will not always yield the right answer, it does provide some protection against cognitive biases and limitation”.

By contrast, a new ACH model, the ACH-SL (ACH using subjective logic) is more rigid and compatible with fuzzy human representation of belief or interoperable with Bayesian systems. It develops a model that might be formalized and constitutes an a priori derivation of diagnosticity from analyst judgements. To sum up, structured analytic technique, or SAT, may represent an opportunity for every analyst and must be combined one another to obtain a more detailed picture. SAT, together with network analysis and key risk indicators, or the future development in key threat indicators which will be the object of further investigation by the author, will constitute the basis for present and future investigative tools in intelligence analysis. As a matter of fact, they will gain more and more importance not only in the field of intelligence, but also in business or sociological science since they are perfectly suited for our modern, data-driven, complex environment.

CONCLUSION

This paper is aimed at highlighting the most important and up to date literature in the field of the crime-terror nexus studies, showing the state of the art in terms of research in this narrow field of analysis. Bridging studies in organized crime and, broadly, crime as a whole, and modern studies on terrorism and its evolution, we focused on previous models of nexus, such as Makarenko’s, and then on the so called “new crime-terror nexus” that is much more consistent with modern day evidences and evolution of the phenomenon.

Literature review showed that the hypotheses of a crime-terror nexus is real and well supported by on field and research investigations. Moreover, in order to settle the basis for future research, the paper is aimed at showing analytic techniques in the field of intelligence analysis and law enforcement thus reviewing the most up to date tools for analyst around the world, from government agencies to business intelligence units, in order to understand whether a new tool such as Key Threat Indicator, that will be developed in future work, will be consistent with today’s techniques used in this peculiar field of analysis.

As a matter of fact, the most important tools mentioned in this paper, such as network analysis, risk indicators and structured analytic techniques play a crucial role in investigating terrorism, organized crime and, in particular, crime-terror nexus given the still high level of uncertainty that surround the topic, hardened by the evolution in the cyber domain. Setting a proper methodology of analysis, in a data-driven environment, is of very much importance to study strategies, actions and, finally, settle the basis for early warnings that may help in reducing crime by acting with an ex-ante approach or dismantling a terrorist plot in the case this is consistent with the hypotheses of the models.

While network analysis is crucial to study clusters and topography of groups and even the position of peculiar individuals across the network, key risk indicators collect a series of sub-indicators that may lead to reduce uncertainty around these phenomena. Accordingly, Key Threat Indicators may result helpful for early warnings and to identify a threat by collecting all evidences acting as a sum of outcomes, coming even from network analysis or classical investigation. Structured analytic techniques are important to deconstruct an analyst thought and system of beliefs, thus avoiding typical biases that may affect analyst’s work. In particular, among those techniques, analysis of competing hypotheses and squared SWOT offer a good and simple solution to assess

the issue of crime terror nexus by putting together evidences and hypotheses. Yet, it must be said that all techniques showed in this paper have their own drawbacks, depending for example on the dataset that we use or the results that one might expect to have. For instance, SWOT analysis gives a predetermined set of information depending on the labels that we use, and this is why it is important to move towards squared SWOT to reduce uncertainty and avoid predetermined results.

To sum up, crime-terror nexus studies highlight the necessity of dealing with complex data, uncertainty and the need, at the same time, for intelligence and law enforcement to answer to decision-makers. Different analytic techniques, coming from sociological or engineering research might be used to address the issue, solve complex puzzles in modern era and, most important, study the phenomenon from a much broader perspective.

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