Chapter 47
Composed Cognitive Maps:
How Little Things Became
Big in Crime Analysis

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ABSTRACT

Composed cognitive maps are a tool based on grounded theory and on Lynch's urban model of cognitive maps, which allow the transfer of information from ethnographic situations to general patterns, and to the so-called spatial dynamics. In criminological matters, they have been applied in the context of environmental and criminology of place to identify criminal situations, criminal patterns, and spatial dynamics of crime. The latter concept has allowed reliable diagnoses for the design of criminal policies. Their advantages are compared with traditional criminometric methods. It introduces a brief compilation of the existing literature on the subject. In a special way, this chapter shows how composed cognitive maps allowed the measurement of drug trafficking networks, police intelligence, and, above all, crime reduction.

INTRODUCTION: THE PROBLEM OF LITTLE THINGS

Inter-American Development Bank promotes a "Prevention Protocol based on Evidence", designed by Lawrence Sherman, which to date serves as the basis for the design of criminal policies in Latin America. The protocol established that: "A strong minority, a small proportion of all units of criminal conduct, causes the most damage to most types of crime", and because of this, "efficiency in crime prevention may increase when resources are concentrated in strong minority units, identified by the use of patterns from past behavior" (Sherman 2012, p. 8). Also, the notion of crime routines in small territories as the primary step to (dis)organized crime, has become a common debate in crime policies studies (Mclean 2021; Brantigham & Brantigham 1992).

This perspective is widely supported by an important criminological movement that maintains that, without disregarding the importance of other factors, most efficient criminal policies perceive commission

of crimes, above all, as a transaction between aggressors and victims in the spatial situation (Weisburd et al, 2012; Vozmediano Sanz & San Juan Guillén 2015; Clarke, 1995). To identify the patterns of such opportunities inside crime situations would allow to prevent crime in a more efficient way.

Also, it has been related the efficiency of proximity police to the fight on terrorism. Early reports on suspicious activities and a healthy relation between proximity police and community seems to be one of the most important tools for preventing terrorism, as it was recently studied in Nigeria (Tarela 2018, pp. 107-112).

Some of the literature calls this perspective "Policing Oriented to Problems" (or POP, in English) (Scott & Stuart 2012; Sherman, 2013; Eck & Weisburd 2015; Felson 1995). Prevention policies that recognize these opportunities and to act on them, which not necessarily use force but proximity presence and situation-oriented policies at small territories and hotspots, show greater possibilities of measurable efficiency that, for example, policies oriented exclusively towards repression-deterrence, the socio-economic structure, school, community or family. This notion is still confirmed and warned by certain now a day criminology (EUCPN, 2021).

This perspective shows the need for an instrument to closely observe the dynamics of crime that occur in specific spaces, so an approach from an instrument of victimization on that scale would generate valuable information for preventive use and police intelligence. The basic notion is to understand the crime phenomenon as a concrete and measured reality in observable exchanges.

Quantitatively, small territories and hotspots relationship with greater crime statistics is not questioned yet, and it has been fundamental in a certain cutting-edge criminological debate represented by the "Law of Concentration of the Crime". This notion shows, based on measurements in dozens of cities around the world, that about 4% of street segments, intersections and spaces would correspond to about 40% - 60% of the crimes committed in an urban conglomerate (Weisburd 2015). In this sense, micro-territorial crimes are not a "minor" evil. Statistically expressed, they affect in an extended way to almost all the population of a country, a region and, above all, inside the corresponding urban conglomerates.

Such proportions of context measurement imply the need of instruments dedicated to the microspace level and small territories through *crime analysis* (Torresano Melo & Calles López 2018; International Association Of Crime Analysis 2013). This angle is as important to policies design to urban prevention as fundamental for safety feeling or intelligence. But how can the situation, characteristically related only to small territories, be measured in order to use it in larger public policies?

A problem related to building situation-oriented methods is the well-studied divorce between the micro and macro level. This is an issue that touches the multi-factoriality of crime. It is an assumed fact in criminology that crime is multifactorial, but its readings are so complex that they end up escaping the possibility of being easily measurable in prevention-oriented research inside a specific territory. Some more radical authors even proposed that police cannot be evaluated as a reduction of crime agent, because reduction crime factors are too hard to evaluate (Gabaldon 2007).

Multi-factoriality puts the problem on transferring from the micro level to the macro level. This is not due to not recognizing a profitable relationship between the micro and macro levels (Short 1998) but because the methodology to project behavior from the micro to the macro level is not clear. Matsueda (2013, p.3), following Coleman, found that macro context can be suitable to understand micro context for crime or deviation, as micro-outputs could be suitable to understand macro crime or deviation outputs. But the lacking part is the relation between macro context and micro-outputs. In other words, policymakers do not know how to produce social change in small territories to help to improve the macro context of security, because they seem to be divorced. It is not possible to simply aggregate dyadic exchanges

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