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Environmental Criminology and Crime Analysis for the Global South

1. Issue

Developed in the 1980s in North America, the field of *environmental criminology* encompasses a collection of mutually supportive theoretical frameworks: routine activity theory, rational choice theory, and geometric theory of crime (Andresen, 2014). Collectively focusing on the proximal causes of crime events, *routine activity theory* (Cohen & Felson, 1979) states that crime happens when a motivated offender comes into contact with a suitable target, in the absence of a capable guardian. *Rational choice theory* (Cornish & Clarke, 1986) assumes that offenders are utility maximizers, preferring to use less energy or time to achieve a given goal than alternatives. The *geometric theory of crime* (Brantingham & Brantingham, 1981) seeks to explain patterns of crime based on the geography and topology of urban land use. *Crime analysis* is the practice of describing crime patterns, while environmental criminology helps understand these same patterns (Wortley & Townsley, 2016). These two tasks are highly interdependent and each informs the other. Nevertheless, a commonality among both crime event theory and analysis is where they come from: developed countries. This is significant, because it is not immediately obvious that such frameworks will easily translate to radically different environmental settings, such as those observed in the developing world. Indeed, only a few researchers within environmental criminology have studied developing countries, such as China (Wu et al., 2015), India (Mazeika & Kumar, 2016), South Africa (Breetzke & Cohn, 2012), and Brazil (Melo, et al., 2017). Generally speaking, traditional environmental criminology explains partially the crime results in these countries. However, these studies also highlight key differences in context that are important for understanding crime problems beyond the developed world.

To illustrate, an approach to preventing crime underpinned by environmental criminology relies on understanding the role that a physical environment plays in placing, promoting, and sustaining crime, disorder, and victimization (Clarke, 1997). Cities around the Global South[1] have been largely constructed by their residents, who build not only their own houses, but also their neighborhoods, which results in a different building metric that is composed of peripheral urbanization and urban sprawl/slums (Caldeira, 2016). Besides that, these cities have factors that may shape crime rates: income and social inequality, concentrated poverty, policing and justice deficits. On the other hand, some prominent environment criminologist scholars assume that culture/context does not matter. This extreme is counterbalanced by other affirmations that dismiss environmental criminology and other crime analysis frameworks in favour of a 'culture/context explains everything' naivety. This research seeks a more fitting theoretical position across the crime analysis/culture continuum. The proposed project will address this need, raising the urgent crime prevention policies in the Global South. For instance, Brazil had almost 60,000 homicides in 2015, almost 400 police officers deaths in the same period, more killings in Brazil than Syrian war between 2011 and 2015. While such extreme crime trends may be accounted for by established environmental criminology measures, only a partial assessment of the problem at hand would be reached without also considering Brazilian culture and urbanism without a wider framework.

2. Objectives

The general objective of the proposed program of research is thus to contribute to the growing understanding of crime analysis in developing countries through environmental criminology. In addressing these aims, the *specific objectives* of the research are to:

- **a.** Retrieve, collect, create, and standardize a series of variables that will allow us formally test and compare crime analysis results between a Brazilian city and a Canadian city;
- **b.** Identify the main empirical and theoretical convergences and divergences in environmental criminology of a typical Brazilian urban area;
- **c.** Design new crime analysis techniques and reframe theory for a Latin American context without the bias from developed countries;

[1] Regions across Africa, Latin America and the Caribbean, and South and Central Asia contain large cities with violent and acquisitive crime problems. These postcolonial regions have been referred to as the Global South (Carrington et al., 2016).

d. Develop crime prevention policies for the Global South.

3. Methodology

The project is divided into two distinct but related phases. Each phase will take 6 months to complete, however, schedules will be flexible in order to maximize insight and outputs.

Phase 1 - In accordance with *objectives a and b*, phase 1 will collect and analyze crime data from both Brazilian and Canadian cities. The chosen city from Brazil is Campinas, located in São Paulo State. It is a relatively wealthy city, but with crime rates above the national average (Melo et al., 2016). The chosen city from Canada is Montreal, located in province of Quebec. Both cities are comparable in their population size (1.7 million for Montreal, 1.2 million for Campinas).

Perhaps the most challenging for crime research in the Global South is accessing appropriate data. Fortunately, we have 2 distinct georeferenced databases from Brazil. The first is composed of public crime data recently released by São Paulo State Safety Public. This data set is based on four crime types: homicide, robbery and murder, auto theft, and vehicle theft. The second data set is derived from a special hospital for women called Women's Integrated Healthcare Center (CAISM) at the University of Campinas. This data provides information from reports to police, the victim's profile, and the sexual assault details. As previous studies (Morselli et al., 2015), the crime data of Montreal can be collected on official records found in the *Module d'information policière* (MIP) and which were provided by the Sureté du Québec (SQ), Quebec's provincial police, from 1990 to 2009. Another dataset from the city of Montreal (which operates, by extension, the Montreal Police Service) was also released recently, which offers geolocated crime data at street corner level since 2015. Both Montreal datasets have property crime and violent crime.

The two datasets will provide a comparison between the two cities, with the application of various crime analysis concepts and measures, such as crime concentration at place, patterns of repeat victimization, and spatial regression modeling. Through crime mapping combined with statistical methods, it is possible to evaluate the already cited crime analysis issues. The proximity with new techniques, such as network analysis with spatial data (Boivin & D'Elia, 2017; Morselli, 2009) will be helpful in this stage. It is expected that the comparisons will show some limitations of environmental criminology to explain crime in a Latin American context.

Phase 2 - This phase will address *objectives c and d*. After the identifications of the theoretical and methodological limitations, we will reshape the theory for the Brazilian context. In this sense, it will offer new spatial variables to better explain crime patterns, such as land use, urban landscape metrics, census tract variables that show concentrations of suitable targets, potential offenders, and absence of guardianship. While our Brazil-specific analysis will not allow us to generate an understanding for the overall Global South (we do not assume similarity between Brazil and India, for example), this new Brazilian reframing toward a non-Western country is more adaptable than from a Western country. At this stage, the project follows a straightforward assessment that follows situational crime prevention policies underpinned by environmental criminology in the Global South.

4. Schedule and Contributions/Aims

The *timetable* shows approximate dates in the project execution:

Activities	*Months*											
	1	2	3	4	5	6	7	8	9	10	11	12
	Phase 1						*Phase 2*					
1- Data preparation	X											
2- Crime analysis in Campinas and Montreal		X	X	X								
3- Comparison in the results and theory implications				X	X	X	X					
4- Reshape environmental criminology to Campinas							X	X	X			
5- Propositions of crime prevention policies in Global South cities									X	X	X	
6- Write and publish results						X	X	X	X	X	X	X
7- Workshop											X	

The fields of crime analysis and environmental criminology are well established amongst specialists and generalists in criminological circles. The publication aims and contributions from this postdoctoral tenure

will extend toward both these segments of the community. One book collection and three articles are planned during the tenure period (with final publications likely extending beyond 2018). The main outlet for this specific field has traditionally been the *Crime Prevention Studies* series. With my research supervisors as co-editors, we will submit a proposal to Ron Clarke (the CPS editor) for a special issue on Crime Analysis in the Global South. The organization of this issue (with roughly 15 chapters) will begin with a workshop of approximately 20 international researchers (planned for November 2018) that I will coordinate under CICC guidance and sponsorship (if the project is accepted by the CICC administration, of course). Aside from this special issue, three articles are planned. The first article (potentially a *Criminology* or *Journal of Research in Crime and Delinquency* piece) will be based on an empirical demonstration of the Global South difference (based on the Montreal-Campinas comparison). The second article (potentially a *Theoretical Criminology* piece) will address the theoretical reframing of the problem to the Global South context. The third article will be more focused on methodological issues for approaching crime analysis in the Global South (potentially a *Methodological Innovations* piece). Aside from the November workshop, the advancement of these publications will also be facilitated by presentations at the American Society of Criminology (ASC) and the Environmental Criminology and Crime Analysis (ECCA) conferences.

5. Statement of motivations to carry this project at CICC

After completing a research tenure at the ICURS laboratory at Simon Fraser University (under the supervision of Martin Andresen and Patricia Brantingham), it was both clear to me and highly suggested by Patricia Brantingham that I pursue my research with Rémi Boivin and Carlo Morselli at the CICC. The CICC is one of the largest and productive criminology communities in the world. Unfortunately, there is not a criminology institute in Brazil, my homeland and one of the most criminogenic countries in the world. I am excited about the possibility of coming to Montreal as a postdoctoral researcher. This would be a career-defining opportunity for 3 main reasons: (i) exposure to scholars at the frontier of contemporary comparative criminology debates, such as my supervisor Rémi Boivin and co-supervisor Carlo Morselli; (ii) enhance my technical skill set (e.g., adding social network analysis); and (iii) focus on new crime explanations issues in a developing country. The CICC will also benefit from my one-year presence. My understanding is that none of the 50+ researchers that make up the center have advanced skills in geographical techniques. As a geographer, I see my fit not simply within the scope of Boivin and Morselli's research team, but also within the projects of several other researchers that may be interested in this general crime analysis tradition.

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