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# Business Survey: Cognitive Fear Maps

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## INTRODUCTION

Current research on fear of crime reveals a recurrent theme of disorder in explanations of fear of crime and perceptions of security. This disorder is scalable, ranging from proximal cues associated with specific encounters between people or defined micro locations through to distal feelings of fear about areas, activity nodes, or major pathways. The research presented here compares two samples (n=235) of businesses in the City of Vancouver, British Columbia. A visualization technique is presented to demonstrate how aggregate cognitive maps about perception of crime can be created and used by civic agencies when determining strategies aimed at reducing fear of crime.

## STUDY AIMS

In 2012, the Grandview-Woodlands Community Policing Centre (GWPC) wanted to obtain more detailed information on the business community in the Grandview-Woodland neighborhood so that specific programming could be developed to address their safety and security needs. The survey instrument contained 30 questions regarding disorder, demographics, and maps. This business survey was distributed to every business in the study area. The study area is 4 km from the centre of downtown Vancouver. There were two sets of businesses. The first set of businesses considered were on Commercial Drive which is a pedestrian-oriented street containing various businesses, coffee shops and pubs. The second set of businesses considered were off Commercial Drive and were from adjoining streets in the study area.

## METHODS

Surveys were hand-delivered by GWPC volunteers to every business in the study area. This occurred during regular business hours from Monday to Friday between 9:00 AM and 5:00 PM. The completed surveys were collected a week later. Businesses that did not complete their survey were given an additional three days. This process occurred over two months (July and August) during the summer of 2012. Respondents were asked to complete the two-page survey including a map of the study area where respondents were asked to circle the area they felt had the most crime. A total of 236 surveys were delivered, of which 99 completed surveys were collected from Commercial Drive and 135 completed surveys were collected from businesses off Commercial Drive. Of the 236 surveys delivered, 234 were completed: a 99.1% completion rate. The perception of crime from the surveys in this study (mapped data) is analyzed and presented in this poster.

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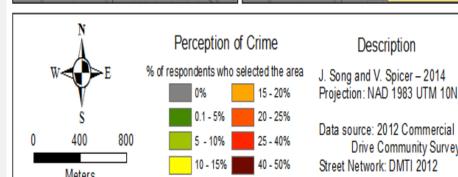
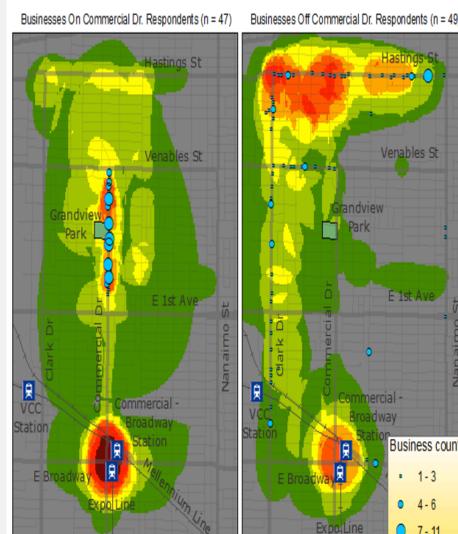


## RESULTS

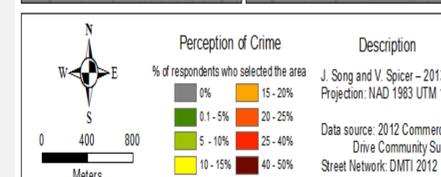
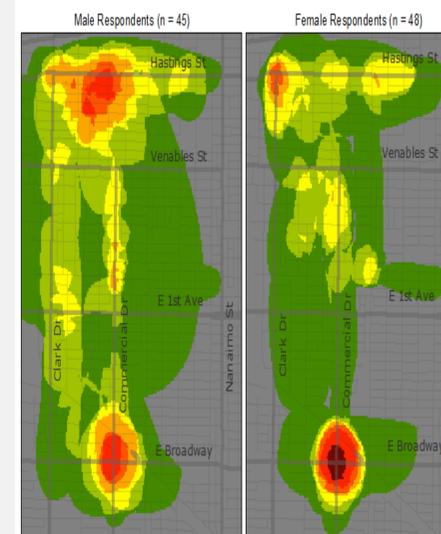
The two comparative fear maps presented here show very distinct patterns. This first compares the cognitive maps from businesses on Commercial Drive to businesses located off Commercial Drive. The first hotspot is located where the majority of surveyed businesses are located. For the businesses on Commercial Drive, this hotspot is located on this street. Whereas for the businesses off Commercial Drive, this hotspot is at the north west sector of the study area. The second hotspot for both business samples is located at the south end of the study area and is substantially more pronounced. This area contains a mass transportation hub connecting two rapid transit (Skytrain) light rail lines and express buses that travel along a major thoroughfare bisecting Vancouver.

The second cognitive comparison shows a difference between male and female respondents. Females have a much more condensed perception of crime located at the Skytrain station. Males, on the other hand, seem to have a more diffused perception of crime. For them, the two hotspots are split between the northern section and the Skytrain station. One explanation may be related to the formation of *safety templates* and gender differences that can occur in this formation. *Safety templates* are formed during routine activities and experiences with crime and disorder cues. These experiences can be varied and include real experiences, perceived risk, and can be supplemented by information gathered in the media or through social ties. For the females in this sample, the Skytrain station may be a very defined crime generator with intense resonance.

Cognitive Fear Maps: On vs Off Commercial Drive



Cognitive Fear Maps: Male vs Female Respondents



## DISCUSSION

A heightened perception of crime can have a negative impact on business in general, and can reduce feelings of security for business owners, employees and clients. The results in this study show a heightened perception of crime that is both proximal and distal. These two distinct business communities select a proximal area close to the majority of the businesses in the sample while at the same time selecting a distal area located at a mass transportation hub. Future research should focus on furthering this spatial analysis by looking at how these two business communities differ in their experiences of disorder.

## CONCLUSIONS

This study supports the theoretical propositions founded in environmental criminology. Indeed, proximal perception is individualized and linked to cues in the environment while distal perception is associated with routine activities that form aggregate patterns of perception related to the generalized movement of citizens in the urban domain. In order to enhance feelings of security within the business community, civic agencies need to optimize their strategies along well-travelled routes while also addressing the local needs of micro business communities. These strategies should include measures that mitigate the effects of disorder associated with mass transportation that also impact pedestrian-based streets such as Commercial Drive.

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