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The Relationship between Territorial Functioning and Victimisation: A Comparative Study of High and Low Crime Rate Estates

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Abstract

This study examines territorial functioning in neighbourhoods with different crime levels. Territorial functioning was measured on two dimensions: territorial attitudes and marking behaviour. In addition, perception of safety and fear of crime was also incorporated in the questionnaire based on the British Crime Survey. Police recorded Offence and Offender Data were used as an index of crime level. The survey involved 206 participants from three council estates in Sheffield, UK. The study reveals that victimization is associated with low territorial functioning. People who are more territorial were less likely to be victimised than their opposite counterparts.

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1. Introduction

Territorial functioning revolves around protecting a space and defending it against intrusion. It is based on the notion that residents are likely to protect spaces that belong to them, and over which they have

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some means of control. According to Taylor (1988), territorial functioning consists of three main elements: attitudes, behaviour and markers, which often interacts with one another. This contention is supported by the works of Edney (1972), Patterson (1978), Taylor et al. (1981) and Abu Ghazze (2000). Altman (1975) identified three different types of territory that exist relating to dimensions of occupancy duration and psychological centrality. They are primary territories, secondary territories and public territories. Primary territories are central to the lives of their owners. These spaces are typically occupied for long periods and are controlled on a permanent basis. The owners usually have legal rights to these spaces which are often marked by them, and are therefore, clearly identified by others. Such territories include homes and bedrooms. Secondary territories are not as central to the lives of the occupants as primary territories. These territories are the bridge between the total and pervasive control expressed in primary territories and public territories which are free for all to use. They are more accessible to a greater range of users. Public territories are the least central to the lives of the users. These spaces are usually occupied for a limited period. Examples of public territories include streets, parks and playgrounds.

Territorial functioning plays a vital role in the residential environment especially in primary territories such as the home because of its centrality to the lives of the occupants. Intrusion in primary territories such as the home is critical not only because it affects the quality of life of the owners but also because they are left with no other spaces to retreat into. There is substantial support that links territorial functioning with low crime areas. Research found that the crime of violence against persons was lower in areas where the residents felt more sense of territorial responsibility towards the area (Taylor et al., 1984). This is important because it encourages the appropriation of territorial functioning to the deterrence of crime (or victimisation). Nonetheless, in gated communities where lower territorial functioning behaviour is more evident due to a lower sense of community, residents found a greater sense of security (Wilson-Doenges, 2000). This conflict between territorial functioning and fear of crime behaviour points to a need to investigate whether territorial functioning is a useful approach in reducing crime, or it is an outcome of a stable neighbourhood (i.e. low crime estate).

However, to date, research focusing on the relationship between territorial functioning and demographic characteristics suggest that territorial functioning is more of a characteristic of stable neighbourhoods (Edney, 1972; Greenbaum & Greenbaum, 1981; Macdonald & Gifford, 1989; Taylor et al., 1981). This is not surprising as satisfaction with local physical environment and perceptions of safety are closely linked (Austin et al., 2002).

With the exception of Greenberg et al. (1982), physical and territorial characteristics of high and low crime neighbourhoods were contrasted. In that particular study, physical characteristics among three pairs of low and high crime neighbourhoods were found to be, to a far greater extent, more distinguishable than territorial functioning. Contrary to previous studies, Greenberg et al. (1982) found few differences in territorial functioning between high and low crime neighbourhoods, and concluded that even when existed; it was more a characteristic of high crime neighbourhoods. They added that the observed relationship between high crime and territorial functioning was a reflection of the expression of fear of crime among the residents rather than as means of maintaining safety. However, since the high crime areas were also residentially less stable than the low crime areas, the results contradicted the findings of other studies that revealed a link between territorial functioning and population stability.

Therefore, this study sets out two main objectives. The first objective, aside from the demographic characteristics, seeks to explore the victimisation aspects and its differences across low versus high crime estates. Once this is established, the second aim will be to determine whether territorial functioning can be a deterrent for break-ins, and whether this effect will be contrasted across low versus high crime estates. The rest of the paper will be structured as follows. The next section provides a brief background into the literature on territorial functioning and victimisation and other related aspects of criminology and

urban planning. This is followed by detailing the data collection and survey methodology procedure, and the results of the analysis. The final section concludes the discussion of the study.

2. Literature review

The organization of the literature starts with the premise of the ability of territorial functioning to act as a deterrent of crime. In general, there are three approaches that can be vantage points for highlighting insights into neighbourhood crime prevention. The first is to investigate research related to residents' fear of crime and what they perceived to be problematic crime activities in their neighbourhood. In this regard, secondly, researches can find a link between residents' victimisation experience and the resulting actions they adopt after their experiences. In general, conventional wisdom dictates increasing security and surveillance features as deterrent factors to victimisation and neighbourhood crime. Hence, the third perspective of crime prevention can be said to stem from the Defensible Space theory of Newman (1972).

Brower, Dockett, and Taylor (1983) can be said to be the first to argue on the territorial functioning concept as a complement to Newman's theory. They suggested the efficacy of Defensible Space theory from the perspective of physical factors in a housing environment. In the study, fences were found to act as a powerful security feature that discourages trespassing, a time when fences were not as prevalent in certain neighbourhoods. They too put forward a need for planting and how they could be used to stop intrusion and discouraged crime. Brower et al. (1983) found that real barriers not only may deter intrusion but also reflects residents' possessive behaviours.

Taylor, Gottfredson and Bower (1984) later operationalized Newman's theory as the extent to which respondents felt responsible for what happened on the sidewalk in front of their house and the alley behind their house and proportion of respondents who were able to provide a neighbourhood name. In addition, the study covers an interrelated set of attitudes and behaviours concerned with control over who has access to which particular spaces and what activities goes on there. They found that although local social ties dampened crime and fear directly and indirectly via territorial functioning (TF), physical factors alone (as a dimension of TF) cannot be relied on to preserve local order and feelings of security. In another study, Velez (2001) confirmed that individual's likelihood of victimisation is decreased in neighbourhoods that have strong social ties, even in disadvantaged neighbourhoods. Given that the period of 70s and 80s were filled with the migration of younger, middle- and upper-income households into centrally located urban neighbourhoods, Covington and Taylor (1989) saw a need to investigate this gentrification pattern based on the then measured current market value of home. They found that gentrification was linked with unexpected increases in robbery in a Baltimore neighbourhood.

Based on the data of the victimisation survey in Seattle Washington, social integration was found to be associated with decreases in perceived risk (Rountree and Land, 1996). Surprisingly, although crime rate was established as a positive factor of protective behaviour, yet community disorders do not lead to an increase in precautionary measures. In addition, Rountree and Land (1996) found that there is a tendency for non-whites to perceive lower crime risk than Whites in disorderly places. Later, Kanan and Pruitt (2002) replicated the study in Nashville, where they discovered that neighbourhood disorder, income and crime prevention measures produce the most consistently significant effect on fear of crime and perceived risk, while neighbourhood integration variables appears to be relatively unimportant.

However, Carvalho and Lewis (2003) through an in-depth interview approach of 69 disadvantaged residents concluded that crime and incivilities do not always raise fear, even in inner city, high-disorder communities. This is also confirmed in a later study, where residents' perceptions of incivilities were found to be an insignificant predictor of crime (Brown, Perkins & Brown, 2004). This is because victimisation experiences are faced without surprise, and perceived to be a possibility and way of life. Nonetheless, this does not prevent respondents living in economically disadvantaged geographic areas

from perceiving their immediate surroundings in negative terms (higher levels of incivilities) (Reisig & Cancino, 2004).

Crime and fear seems to display significant clustering in certain neighbourhoods (Wyant, 2008). This may be caused by the attractiveness, opportunity and accessibility of such places to burglaries and robberies (Bernasco & Luykx, 2003). Nonetheless, these incidences are found to be inversely associated with informal surveillances, where residents actively monitor social activity within their communities (Bellair, 2000). Wilcox, Madensen and Tillyer (2007), via the notion of ‘guardianship’, came to the conclusion that individual level target hardening (or guardianship) such as place management and surveillance were more negatively related to burglary than the concept of natural guardianship from the viewpoint of defensible space.

There is a tendency for a large gap between fear levels and victimisation rates (Evans & Fletcher, 2000). The study also showed that perceived likelihood of victimisation, attitudes to the area (including the level of cooperation between neighbours), and attitudes to the police, media were not significantly correlated with fear variables. Villarreal and Silva (2006) confirmed that greater cohesion among neighbourhood residents does not significantly lower crime rates, but it is in fact associated with a higher perceived risk of victimisation.

In terms of socio-economic and demographic factors, previous studies have suggested a link between demographic characteristics such as age, family size and length of residence to the residents’ victimisation experience in their local neighbourhoods (Chang, 2011; Campbell & Lee, 1992; Rothenbuhler, 1991; Schweitzer et al., 1999). The results of a study on a single-family complex in Jordan by Al-Homoud (2010) suggest that physical control is associated with the presence of children in the family, employment, age and family life cycle in which age seems to be the strongest predictor. In general, there is a great consensus among research to suggest that more stable residents are relatively expected to have a lower victimisation rate (Bernasco & Luykx, 2003). The link between gender and territoriality was also exemplified in a dormitory setting. Weber (2003) conducted a study in two distinct cultures; American and Turkish and the results find that in both cultures, men tended to exhibit more non-sharing behavior and less personalization of space than women.

3. Theoretical model

With regards to territorial appropriation, residents who defended near-home space experienced the neighbourhood as a safer, more cohesive community than residents who did not possess such attitude (Brunson, Kuo & Sullivan, 2001). A study also found that older, established residents to be more territorial in the appropriation of their near-home spaces. Overall, it can be argued that Newman’s Defensible Space concept neglects the complex underlying social processes that determine territorial functioning (Reynald & Elffers, 2009). Consistent with the literature, this paper improves upon the territorial functioning concept via measures of neighbourhood ties, and anticipates that:

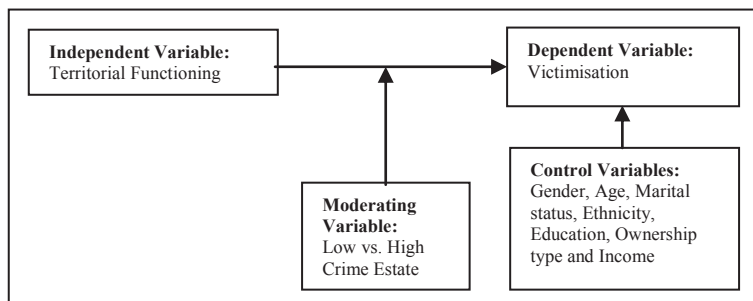


Fig. 1. Theoretical framework of the study

H1: There is a negative relationship between Territorial Functioning and Victimization (the number of break-in attempts), regardless of the type of neighbourhood.

Fig. 1 illustrates the theoretical framework of the study. The control variables are pre-controlled at the design stage of the study when samples were stratified along gender, age, marital status, ethnicity, education, ownership type and income.

4. Research methodology

4.1. Respondents

This study focuses on council (local authority) dwellings in Sheffield, England which are predominantly occupied by low income people. Though declining, this type of tenure still represents a high proportion (25%) of the overall tenure type in Britain (Lovatt, 2011). Two estates were chosen for the study and their identities are not disclosed in order to maintain anonymity. The first estate represents a low crime estate, referred to as Estate Low while the second estate represented a high crime estate, identified as Estate High. In general, the crime rates in council estates have often been reported to be higher compared to other types of tenure such as the owner occupied or private rented sector. However the selection of the estates in this study was made based on contrasting crime rates, while having demographic and other estate features that are as similar as possible. Both estates were built in the inter-war period with cottage-type dwellings based on “garden city” layouts. Both estates are located in a predominantly housing area with common basic shopping facilities provided within the estates. The estates were also comparable in terms of size, population density and rent rates. The demographic characteristics were also similar; comparable in gender balance, ethnicity, marital status, social class of head of households, tenure type and car ownership. Age composition was comparable though the number of children under the age of 15 was slightly higher in Estate High.

The main wage earner or the spouse was identified in each household. Prior to the survey, the respondents were asked two screening questions. This was done on the doorstep. The first question involved asking respondents whether they had lived at the address for at least a year. Respondents who have lived there less than a year were excluded from the interview. This was to give a reasonable time for the respondents to develop territorial attitudes and display markers. As the focus of the study is only on council dwellings, the second question asked whether the respondent rented or has bought the dwelling from the council. Respondents who do not rent or buy their dwellings from the council were excluded from the survey.

4.2. Procedure

The first stage of the study was quantitative in nature and involved a personal observation of residents’ front garden in order to evaluate behaviour markers. The second part of the survey involved asking the residents to answer a questionnaire which was orally administered. It contained two parts. The second part covered background information, territorial attitudes, fear and crime problems in the area and a section that recorded victimisation incidence. A sampling frame was developed from the list of all properties obtained from Sheffield City Council. The respondents were randomly selected using the systematic sampling method. The survey involved 206 respondents from two estates. Estate Low (EL) was represented by 102 respondents. Estate High (NW) had 104 respondents.

4.3. Variables and measures

This study employed 5 items on neighbourhood familiarity as measures or proxies for territorial functioning (Edney, 1972; Patterson, 1978; Taylor et al., 1984). The first three categories, including exterior house maintenance, gardening work, and physical barrier, were measured based on a five-point Likert scale. Marker, as the last category, was measured based on the total number of items present. The second method involved the use of attitude items adapted based on the work of Taylor et al. (1981). The scores were based on a four-point Likert scale format ranging from 'strongly agree' to 'strongly disagree'. The reason for using a four-point scale without a neutral answer was to force the respondent to take a stance. As the interpretation of the final score was based on the distribution of the respondents' score, it was important to avoid respondents from being grouped in the middle, non-committed category.

The questions regarding victimisation experience were structured based on the latest available British Crime Survey (BCS) which involved asking respondents whether they have been the victim of any household or personal crime in the past twelve months (Flatley et al., 2010). The victimisation survey included one additional question in order to distinguish whether an incident occurred in the area or elsewhere. This information was important for the calculation of the crime rate of an area and separating high from low crime estate. However, for the purpose of investigating the research model in Figure 1, we have chosen number of household break-in attempts experiences as a measure for the dependent variable.

5. Results

5.1. Respondent profile

A cross-tabulation analysis was used to partition the respondents' profile along the type of estate, that is, either high or low in crime rate. The results in Table 1 indicate that all the control variables (Gender, Age, Marital Status, Education and Income) indeed do not significantly differ across the type of estate. This is an important characteristic to show that proper sampling strategy has been taken into account and any statistical test results subsequent to this could not be attributed to sampling biasness. The results in

Table 1. Respondent characteristics: low versus high crime estates

| Demographic characteristics | χ^2 |
|--------------------------------|----------|
| Ownership of property | 3.381 |
| Gender | 0.071 |
| Age of respondents | 6.283 |
| Marital Status | 2.124 |
| Ethnicity | 2.469 |
| Final schooling age /Education | 2.422 |
| Respondent as main wage earner | 1.744 |
| Total Household Income | 1.462 |
| Respondents above 60 years | 3.114 |
| Owned or use of vehicle | 3.405 |

Notes: Estate low: N=102 (49.5%); Estate high: N=104 (50.5%)

**p<0.01,*p<0.05

Table 1 further show that there is no significant association between elderly respondents (i.e. above 60 years) and the type of estates. Although respondents' profile did not differ significantly across the type of estate, high crime estate is characterized by a significantly higher number of terraced houses.

5.2. Territorial functioning

Mann-Whitney U test was conducted to investigate whether any differences exist in terms of Territorial Functioning across the type of estate (see Table 2). The non-parametric Mann-Whitney was chosen since the study variables are ordinal-ranked across the nominal level of estate type. The results indicated that all the item measures for territorial functioning did not differ across type of estate. It can be safely stated that the respondents from both estates engaged in territoriality features irrespective of the estate type.

Table 2. Territorial functioning and crime: low versus high crime estates

| | Low | High | Mann-Whitney U |
|--|-------|-------|----------------|
| Territorial Functioning | | | |
| I know the names of most of my neighbours | 96.38 | 86.48 | 526 |
| I feel responsible for watching over my neighbour's house when they are on holiday | 91.85 | 92.19 | 482 |
| I feel comfortable living among my neighbours | 93.44 | 90.19 | 442 |

Note: **p<0.01, *p<0.05

6. Victimization

A cross-tabulation analysis was run to identify whether any association exists between the type of offence and the type of estate (see Table 3). There are no significant differences in terms of victimisation related to tempered vehicles (including stolen parts) between both estates. However, high crime estate has greater break-ins (including unsuccessful attempts) than low crime estate. Therefore, we selected the number of break-ins as our dependent variable of study.

Table 3. Victimization: low versus high crime estates

| Victimization | χ^2 |
|----------------------------------|--------------------|
| Parts stolen from vehicles | 0.44 |
| Vehicle tempered or damaged | 1.638 |
| Burglary | 3.36 ^a |
| Unsuccessful attempt at burglary | 5.022* |
| Thing stolen from home | 2.837 ^a |
| Deface or damage to house | 4.749* |

Note: ^ap<0.10, **p<0.01, *p<0.05

7. The relationship between territorial functioning and crime

The main objective of the study was to ascertain the link between territorial functioning and crime, and whether the strength of this impact differs across estate types. The hierarchical regression analysis was employed with a stepwise regression analysis entered in 3 consecutive blocks (see Table 4). In the first block, it was revealed that territorial functioning did indeed influence (negatively) the number of break-ins. The second block reveals that there is a direct effect of type of estate on the number of break-ins.

Table 4. Hierarchical regression dependent variable: no. of break-in attempts

| Variables | Model 1 | Model 2 | Model 3 |
|------------------------------|-----------|---------|---------------------|
| | TF | TF + ED | TF + ED + (TF x ED) |
| Territorial Functioning (TF) | -0.186 ** | -.178** | .175 |
| Estate Dummy (ED) | | .154* | .759 ^a |
| TF x ED | | | -.691 |
| ΔF | 7.511** | 5.209* | 1.970 |
| ΔR^2 | .035 | .024 | .009 |

Notes: Estate 1=Low Crime Estate, Estate 2= High Crime Estate. ** $p < 0.01$, * $p < 0.05$ and a $p < 0.10$. Values for variables are standardized β .

Nonetheless, the third block indicates that there is no evidence to suggest that the strength of the influence between territorial functioning and crime is further affected by the type of estate. In other words, territorial functioning has a negative influence on the number of break-ins, regardless of neighbourhood.

8. Discussion

The study aims to examine the influence of territorial functioning features in reducing victimisation by considering the moderating effect of low and high crime estates. In order to explore the effect of the physical environment of the area of residency on the residents' victimisation rate, the study developed an observation checklist for measuring the physical conditions as well as a survey tool for examining demographic characteristics and victimisation rate.

The relationships between victimisation and demographic factors such as age and gender as dimensions of physical vulnerability have received considerable attention in the literature. Demographic conditions such as income level can also influence burglar's judgment and consequently the crime rate. The study seeks to examine the likelihood of the relationship between victimisation and demographic factors in order to explore which social factors are related to high crime estate. Interesting, however, is the finding of the study that found no significant differences between all the control variables and the type of estate, indicating that the locations selected for the study are appropriate. As expected, the results further revealed that high crime estate has greater burglary incidents than low crime estate.

Perkins et al. (1993) found that higher levels of territorial attitudes have negative effects on victimisation rates. Studies show that more security devices may reduce burglaries, and burglars are less likely to commit crimes towards houses with more security devices (Weisel, 2002, 2004). In terms of maintenance, Brown and Altman (1983) argued that non-burgled residents expressed more pride in the appearance of their homes compared to burgled residents. On the contrary, Austin et al. (2002) have found that there is a negative relationship between victimisation and exterior maintenance. Evidence

suggested that houses with poor maintenance are considered less defensible and more prone to crime than others (Cozens et al., 2002).

In line with a large body of literature, the result of analysis confirmed that there is a negative significant influence of territorial functioning on victimisation rate (Hedayati Marzbali et al., 2012; Minnery & Lim, 2005)Hedayati . In addition, no evidence was found regarding the moderating effect of estate type on the aforementioned relationship. This is in line with the study conducted by Greenberg et al. (1982), where there are few differences in the level of territorial functioning between high and low crime neighbourhoods. Bringing all together, it is possible to say that territorial functioning features cannot attribute to a particular neighbourhood type. The study found that although territorial functioning is a useful tool in reducing victimisation rate, no evidence is found regarding the strength of the influence of this relationship based on the neighbourhood type. This implies that the study hypothesis is supported.

As a limitation of the present study, this suggests that the strength of this relationship may depend on other factors behind the scope of this investigation such as neighbourhood configuration and the degree of social interactions. According to Taylor et al. (1984), physical factors alone cannot be relied on to protect residents against crime. A suggestion for future research is to study the role of neighbourhood design and planning features such as type of streets, neighbourhood configuration, types of land uses and social integration on crime and territorial functioning. Despite this limitation, the study contributes to knowledge on the subject matter both theoretically and methodologically. By studying the relationship between physical features and crime rate, the moderating role of the estate type on the relationship between territorial functioning and victimisation was not supported.

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