

TERRITORIAL FUNCTIONING AND ITS PREVENTION MEASURES ON BURGLARY

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Abstract: The aim of this study examines whether territorial functioning in housing areas with different land uses and perception of crime levels. Territorial functioning was measured on attitudes, behaviour and markers. We measured the perception of safety and fear of crime similar to what was done by the British Crime Survey. The survey involved 144 participants from two separate Malaysian local councils. The data were then analyzed through (SEM) Structural Equation Modelling. The main purpose of the mathematical process is to turn out and combine territorial markers, behavior and attitudes as to create an overall total for territorial functioning correlated and comparison is established between the two housing area. The study shows that territorial functioning improves chances of being victimized in both the neighborhoods.

Keywords: Territorial Functioning, Burglary, Crime Prevention, Prevention Measures.

1. INTRODUCTION

Crime has been a major problem in the urban settings. Discourses on the subject have traditionally been centered more on target hardening, good locks or security system (Shu, 2009, Abdullah, 2012, Marzbali, 2011). Moreover the researchers must now take serious consideration the threat of crime as burglary has been the most eminent among the other types of crimes (Shu, 2009). So clearly show that the crime occurred in urban areas. For example a crime can be ascribed to the migration of rural masses into the region due to the employment opportunities available in the vicinity of residential areas such as offices and commercial areas (Marzbali, 2011). Due to traffic congestion in residential areas more than rural people out of residential fields and without realizing it was a few home break-ins. Some other factor is when the landlord or the tenant is aware of the event and did not distinguish the criminal background of tenants and the area before renting and leasing. Other factors that should be a crime may be related to the schedule of activities and daily routines. For example, in a neighborhood office hours are 8.00 am to 5.00 pm, Monday through Friday. So most likely criminals commit burglary activities on weekends. At another time is noon where time runs the school. This could encourage a burglary case goes unnoticed by neighbors. According to the Government Transformation Program (GTP) 2013 Annual Report, the Royal Malaysian Police (RMP) reduced crime to 49,059 cases within 116 days after the launch of 'Ops Cantas' compared to 52,320 cases recorded in the same period before the operation. Of the 49,059 cases, property crime had been reduced to 36,974 cases and violent crime to 12,085 cases compared to the previous period before the operation.

Essentially territorial functioning, refer to how to protect the property around the human lives from intruders. In general the population in residential areas can continue away the natural effect of a criminal offense if the places that belongs to them is control. According to Taylor (1988) there are three elements that are significant in Territorial Functioning, which is territorial attitudes, territorial markers and territorial behavior are interwoven and responded to support and provoke one another. If one of the elements is high the other elements should be higher as well. Territorial attitudes, deal with the people's perception of their delimited area varying between the cultural expands. Territorial behavior among humans has been broadly considered as serving to regulate social interaction and to offer a necessary stability in social organization (cf. Abu-Ghazzeh, 2000, Altman, 1975; Brower, 1980; Edney, 1976; Lavin, 1981; Rapoport, 1981, 1990). The process that had been implicated to maintain control of a place would be the demarcation and/or adornment of space, such as placing shrubs or hedges as a fence close to a residence or displaying different elements.

According to several studies (Edney, 1972, Patterson, 1978, Taylor et. al., 1981b) territorial markers are regarded as inhibiting territorial encroachment by fixing and maintaining property boundaries. In a study of territorial markers of suburban adults, Edney (1972) found a direct relationship between the presence of preventive markers (examples; fences, hedges, 'no trespassing' signs) and the inhabitants' active defense of their territory (that is the speed of response to an intrusion). It was reasoned out that markers tended to inhibit territorial encroachment where the offenders could perceive the danger of getting into a territory, thereby preventing confrontational social encounters (Altman, 1975; Abu-Ghazze, 2000).

2. LITERATURE REVIEW

Territorial Functioning:

Territorial functioning refers to an interlocked system of sentiments, cognitions and behaviors that highly place specific, socially and culturally determined and maintaining, and that represent a class of person-place transactions concerned with issues of setting management, maintenance, legibility and expressiveness. It revolves around protecting a space and defending it against intrusion. It is based on the notion that residents are likely to protect space that belong to them and over which they have some means of control (Taylor, 1988).

According to Taylor (1988), territorial functioning consists of three main components: attitudes, behavior and markers which often interacts with one another. 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 marked by them and are therefore, clearly identified by others such as 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, such as 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 live of the occupants. Intrusion in primary territories such as home is critical not only because it affects the quality of life but also they are left with no other spaces to retreat into. Then, the recent study shows Malaysia have significantly higher territorial functioning than the British residents with respect to attitude and territorial markers. Malaysia residents with the diverse ethnic group perceived higher levels of territorial attitudes than the British residents who constituted an almost homogenous population (Abdullah et al., 2013). Therefore, this research contributes to the literature by measuring the effectiveness of territorial functioning as a tool to reduce burglary in Malaysia context.

Regarding to the spatial, territorial cognitions, sentiments and behaviors are often specific to particular, small-scale and delimited sites. Small shifts in spatial location may result in major changes in territorial cognitions or behaviors or both. There is substantial support that link territorial functioning with low crime areas. The research found that the crime of violence against persons was lower in areas where the residents felt more a 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 victimization. In gated communities, where lower territorial functioning, behavior 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 behavior points need to investigate whether territorial functioning is a useful approach in reducing crime or it is an outcome of stable neighborhood. Gated community is a concept that emerged in response to the safety and security issues. Gated community offers more advantages in terms of calm environments and enhanced safety that is ideal for family development. Meanwhile, the neighborhood watch concept is one of the housing concepts that play an important role in creating a safe living environment for the residents (Che Ngah, 2007). Thus, this research will includes spatial dimension in by using with and without place-based crime prevention as moderating variables.

Several studies have found that certain defensible space and territoriality features were associated with less crime and less fear of crime. To prove that, this study also will provide the understanding of the impact of territoriality features in

burglary reduction in Malaysia. Again, this theory has been widely employed as a crime prevention measure in residential neighborhoods. There is a lack of empirical evidence that confirm the effectiveness of territorial functioning as crime prevention tool in reducing burglary based on 3 types of territorial functioning (Altman, 1975) in with and without place crime prevention which are gated communities, non-gated communities and the housing area with the neighborhood watch concept.

Burglary:

“Burglary” is also referred to as “unlawful entry with intent” or “break and enter”. Here the term is also to include attempted burglaries (Australian Institute of Criminology, 2001). Residential and non-residential (shops and “other”) burglary patterns can be distinguished by their spatial and temporal characteristics. Because most burglaries occur when property owners are not present, the police are limited to recording a time span during which the offence occurred, usually recorded as a START and an END date and time. The temporal pattern for nonresidential burglary is almost exactly reversed. Non-residential burglaries increase over the weekend and overnight when many commercial premises, schools and colleges are unattended. Given the work patterns of most individuals, and the operating hours for the majority of businesses in Australia, it would appear reasonable to conclude that these patterns are mimicked in other urban environments. With this clear demarcation of burglary type by temporal pattern, it is clear that the spatial and temporal patterns of residential and non-residential burglary should be examined separately (Australian Institute of Criminology, 2001). HouseBreaking continues to become a major concern in the society. Most of the urban cities in Malaysia faced with the Housebreaking problems related to the urban pattern. Crime rates recorded by the police were high not included the unreported crime which will be relatively higher.

One of the cities in Malaysia that was high in crime rate in property crime is Penang in the year 2003 with 9,311 cases and 9,283 cases in 2004. Within the two years showed a reduction of 28 cases. In Malaysia the comparison of HouseBreaking and Theft by Day in 2003 with 5,905 while in 2004 with 5,637 a decrease by 4.64% of cases and HouseBreaking and Theft by Night in 2003 is higher with 15,754 cases and 2004 with 15,754 cases a reduction by 3.66% (Safe city seminar, 2004). There are a lot of crime studies researched that have to do with crime and social aspect and physical environment but the ones related to the relationship Housebreaking and urban design have not undergo research yet especially in Penang. It certainly appears to be almost universally the case that in any particular era showed that urban crime rates are higher than those in the rural areas (Safe city seminar, 2004).

One of the factor that contributes to this phenomena would be the site planning of urban housing area, for example communal park with no frontage, the crowding of trees closing the home area will result in lack of casual surveillance which achieved through the external layout of the dwelling (Syarmila Hany Haron, 2009). According to the statistic data throughout Malaysia most of the Housebreaking and theft occur during the night time this would refer to the inadequate lighting level, the material in the housing area are not vandal resistant proof, streets in the housing area with no road bumps or cul de sac would be easy target for burglars, poor maintenance particularly regarding to specific environment it serves (Safe City Seminar, 2004).

One of the theory that are related which studied the pattern of pedestrian and vehicle movements which characterize the forms of urban problems in the current to and from the "pull" of land use. This document contains evidence that supports the new "configuration" paradigm in which the hotel is the main form of urban grid space privileges some of the others to go through the motions. It is suggested that the urban grid configuration itself is the main generator of patterns of movement. Retail land use and is utilizing the opportunities offered by the late trading and may act as a multiplier on the basic pattern of 'natural movement' generated by the grid configuration settings correlate movement patterns were found. The size of the global nature of the grid with "the size of the integration of space syntax" consistently found to be most important. If we want to design for urban space is used well, the non-local nature of an important space in the main configuration of the system of relations but a larger city (Hillier et al., 1993). Even though there are studies on the burglary and urban design however no research have been done in looking at the relationship between HouseBreaking and theft and urban design in the street pattern, infrastructure and amenities. There is a need for a new strategy of preventing crime at an early stage to overcome the problems that frequently occur. After a brief review of the approach to crime prevention in the built environment and base their theory, the research is to benefit people at all level from the residence to the professional fields in the related areas (Hillier et al., 1993).

Victimization:

Victimization is the process of being victimized or becoming a victim. The term victim of crime generally refers to any person, group or entity who has suffered injury or loss due to an illegal activity (Karmen, 2004). Thus, measures to prevent criminal victimization could be taken if potential victims are alert of potential criminals so that the victims can be more aware of them (Chockalingam, 2007). In theory, anybody can become a victim of a crime. Nevertheless, a particular person or members of certain groups are more vulnerable offenders through deception and fraud. Those who are physically weak such as the elderly, minors and women are believed to be easy targets for physical attacks and robberies (Chockalingam, 2007).

Fear of Crime:

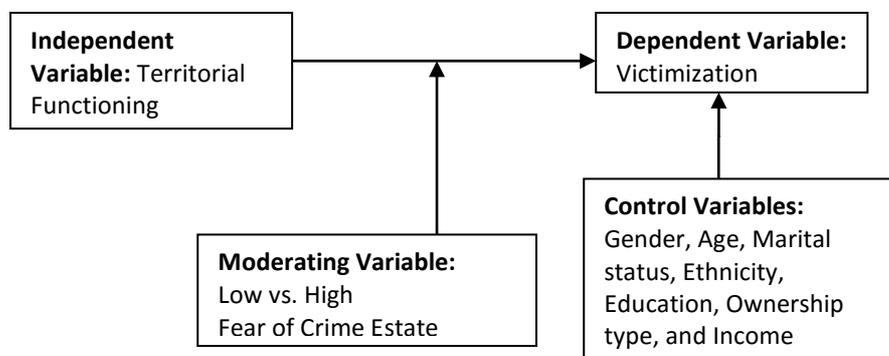
Fear of crime is a manifestation of feeling that one is in danger. According to Pain (2000), fear of crime is not an inherent characteristic of individuals, but rather something that may come and go, depending on and influence of one’s experiences, especially as they relate to one’s position in society. The feeling of crime differs and depends on the situation in which one feels fear of crime (Schneider and Kitchen, 2007), design and the environment (Spinks, 2001), as well as their psychological and social life factors (Minnery and Lim, 2005).

Fear of crime influenced by five factors, which are the physical environment (Harang, 2003; Nasar and Fisher, 1993), social environment (Ross and Jang,2000), victimization (Banks, 2005), crime-specific (British Crime Survey, 2008), and crime problems in the neighborhood (Gibson et al., 2002).

The physical environment is the utilization of fixed elements caused by physical planning and design (Nasar and Fisher, 1993) and believed to give significant effect on fear of crime (Harang, 2003). Meanwhile the social environment factors involve subjective matters such as social problems and familial economic systems involving human relationship (Ross and Jang, 2000). As reported by O’Shea (2006), the concerns of the social environment caused by the individual’s unacceptable behavior such as public drunkenness, drug addiction, prostitution, juvenile loitering, delinquent behavior and homelessness (Renauer, 2007; Welsh and Hoshi, 2002). The third factor is victimization. There have two types of victimization namely direct and indirect victimization. Direct victimization refers to someone who has been a real victim of crime (Nasar and Fisher, 1993). Whilst indirect victimization is when there is a fear of crime upon hearing the news of the crime either from experiences of being a crime victim among the relatives, friends, neighbors, or from the media (Banks, 2005) which caused a traumatic feeling and fear on personal safety should become a victim of crime (Reid, 2000).

Technical Report:

Residents who defended near-home space finds the neighbourhood to be safer than residents who did not place a high regard on their surrounding (Brunson, Kuo and Sullivan, 2001). However, Newman’s defensible space concept ignores the complexity underlying social processes that determine territorial functioning (Reynald and Elffers, 2009). Our research analyses the impact between Territorial Functioning and victimization across neighbourhood types.



Site Selection:

This study focuses on two housing areas in Selangor, Malaysia which are occupied by both low and high income people. This form of dwelling accounts for majority of non-gated landed properties in urban Malaysia.

Two housing areas were chosen for the study and their identities are not disclosed in order to maintain anonymity. The first estate represents a low fear of crime estate (in terms of perception), referred to as Estate Low while the second estate represents a high fear of crime estate, identified as Estate High. However, the selection of the estates in this study was made based on contrasting fear of crime perceptions, while having the demographic profile across estates to be somewhat similar.

Respondents:

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.

A cross-tabulation analysis was used to partition the respondents’ profile along the type of estate, that is, either high or low in fear of crime. The results indicate that all the control variables (Gender, Age, Marital Status, Education and Income) indeed do not significantly differ across the type of housing areas. 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.

Territorial Functioning, Fear Of Crime And Perceived Crime:

Mann-Whitney U test was conducted to investigate whether any differences exist in terms of *territorial functioning*, *fear of crime* and *perceived crime* across the type of estate (see Table 1). The non-parametric Mann-Whitney was chosen since the study variables are ordinal-ranked across the nominal level of estate type.

All the item measures for territorial functioning did not differ across type of estate. There are no significant differences between high crime estate and low crime estate in terms of the 5 fear factors of *being burgled*, *being assaulted*, *having vehicle stolen*, *being sexually harassed* and *being raped*. It can be safely stated that the respondents from both estates exhibit this fear irrespective of the estate type. However, the perception of crimes such as burglary, car theft, vandalism, drug abuse and hooliganism are significantly higher in high crime estate as compared to low crime estate. This indirectly implies that the locations selected for the study are appropriate.

Table 1 Territorial Functioning, Fear of Crime, Perceived Crime: Low Vs High Crime Estates

	Low	High	Mann-Whitney U
<i>Territorial Functioning</i>			
I know the names of most of my neighbours	95.36	76.35	510
I feel responsible for watching over my neighbour's house when they are on holiday	90.25	91.20	465
I feel comfortable living among my neighbours	89.54	85.14	419
<i>Fear of...</i>			
Being burgled	288	167	98
Being assaulted	15.22	13.25	91
Having vehicle stolen	14.66	11.72	74.3
Being sexually harassed	13.79	15.21	83
Being raped	15.78	17.79	91.5
<i>Crime</i>			
Burglary	81.23	53.10	1520**
Car Theft	78.42	56.71	1567**
Vandalism	77.76	56.34	1587**
Drug Abuse	77.08	61.39	1685**
Hooliganism	76.27	58.28	1726**

**p<0.01,*p<0.05

Victimisation:

A cross-tabulation analysis was run to identify whether any association exists between the type of offence and the type of estate (see Table 2). There are no significant differences in terms of victimization 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.

Table 2 Victimization: Low Vs High Crime Estates

		Estate		Total
		Low (n=58, 40.28%)	High (n=86, 59.72%)	
Parts stolen from vehicles ($\chi^2 = .54$)	Yes	16 (53.3%)	14 (46.7%)	30 (21.5%)
	No	31 (36.9%)	53 (63.1%)	84 (78.5%)
Vehicle tempered or damaged ($\chi^2 = 2.748$)	Yes	10(25%)	30(75%)	40(35.7%)
	No	30(41.7%)	42(58.3)	72(64.3%)
Burglary [†] ($\chi^2 = 3.58$)	Yes	2(28.6%)	5(71.4%)	7(4.9%)
	No	72(52.6%)	65(47.4%)	137(95.1%)
Unsuccessful attempt at burglary* ($\chi^2 = 5.022$)	Yes	4(19%)	16(76.2%)	21(14.6%)
	No	61(49.6%)	62(50.4%)	123(85.4%)
Deface or damage to house* ($\chi^2 = 4.749$)	Yes	5(33.3%)	10(66.7%)	15(13.6%)
	No	52(49.5%)	53(50.5%)	105(95.5%)

[†]p<0.10, **p<0.01, *p<0.05

The Impact of Territorial Functioning and Crime:

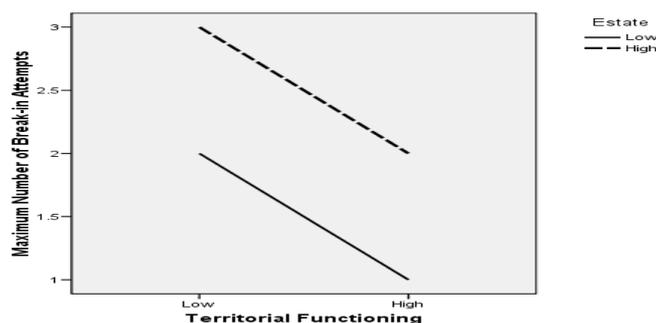
The main objective of the study was to ascertain the link between territorial functioning and crime, and whether the strength of this impact differs across estate types. We find that territorial functioning has a negative influence on the number of break-ins, regardless of neighbourhood (see Table 3). This is further illustrated in Figure 2.

Table 3 Hierarchical Regression Dependent Variable: No. of Trespasses

Variables	Model 1 Territorial Functioning (TF)	Model 2 TF + ET	Model 3 TF + ET + (TF x ET)
Territorial Functioning (TF)	-0.191 **	-.185**	.167
Estate Type (ET)		.161*	.745 [†]
TF x ET			-.677
ΔF	7.677**	6.007*	1.96
ΔR^2	.041	.029	.008

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

Figure 2 the impact of territorial functioning and trespasses: Low vs. high crime estate



3. CONCLUSION

To conclude, this research is about territorial functioning as a crime prevention tool to reduce burglary. There are 2 important points which indicate the importance of this research which are 1) Researchers have measured the territorial functioning through a variety of methods over the years (Foster et al., 2011; Dunstan et al., 2005) but little attention has been paid to the cross validation of these features (Abdullah et al., 2013). 2) Malaysia have significantly higher territorial functioning than the British residents with respect to attitude and territorial markers (Abdullah et al., 2013).

Therefore, this research will formulate the territorial functioning theory, validate and prove the effectiveness in order to be used as crime prevention tool in reducing burglary in the housing area. This research will give the value added in term of reducing burglary dimension by taking into the consideration of the type of territorial functioning that exist in housing areas which use gated community, non-gated community and neighborhood watch concept.

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