CHAPTER 7

HERE BE DRAGONS! SPATIAL SYMBOLS OF CRIME IN POST-APARTHEID SOUTH AFRICA

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ABSTRACT

This article aims to contribute towards an ecological theory of crime in South Africa by reviewing crime and its spatial distribution under both the apartheid and post-apartheid eras. From an ecological perspective, apartheid was predicated upon the spatial segregation of the country’s diverse population according to certain state-defined racial groups. These racialised spaces created by the apartheid state did not automatically dissolve after democratisation but have become even further entrenched by rightist, neo-liberal economic and developmental policies. Moreover, a number of these spaces have become spatial symbols of crime whose ecological conditions, to some extent, pre-determine criminal behaviour in residents. In this context, a chain reaction was set in place under apartheid, which has seen a self-reinforcing cycle in which levels of crime within certain regions of the country have created a context that favours their perpetuation. Policy implications of an ecological perspective on crime are discussed and strategic recommendations are made for the future.
INTRODUCTION

Over the past 14 years South Africa has been held up as an example to the rest of the world as a model of how a deeply divided country on the verge of civil war made a peaceful transition to democracy and nation-building. Following the successful general election in April 1994 the country underwent a rapid transformation from being a ‘white’, autocratic and largely repressive state to one that became more inclusive and democratic. The most significant achievement in the early stages of the democracy was the reconciliatory stance adopted between the leaders of the formerly oppressive state and the previously banned African National Congress (ANC). It was a step that defused the fear that armed confrontation between the two previously conflicting parties might occur. Since the transition, the fledgling country has experienced a number of challenges. Amongst the most important and demanding are the restructuring of the economy, adjusting to globalisation, dealing with rising poverty and high unemployment, grappling with the HIV/AIDS pandemic, and last but not least attempting to contain and combat the surge in criminal activity. Indeed of all these challenges facing the country crime remains the single biggest threat to the one nation, many cultures approach adopted by the ANC as part of its reconciliation agenda.

South Africa is crippled by crime. The country currently experiences approximately 43 murders a day, comparable with the United States (US) and China, but with the latter countries having populations six and thirty times greater than ours. Approximately 220 000 people have been murdered in the past decade: a figure that is four times larger than the total number of deaths of Americans for a ten-year period
during the Vietnam War (Altbeker, 2007). Since the US invasion of Iraq in March 2003, there have been 3913 fatalities of the American military (end-2007) (GlobalSecurity, 2007), and in the same period of time over 88 000 people have been murdered in South Africa. Little wonder that South Africa has been labelled as a “country at war with itself” (Altbeker, 2007, p.38).

It has been claimed that the crime pandemic in South Africa is a ‘natural’ occurrence in transitional societies. The quoted example is that of the collapse of the socialist system in central and eastern Europe where a dramatic increase in the amount of crime followed and was affected by the social change (Lévay, 2000). Similar claims have been made for the increase in crime levels in transitional societies throughout Latin America and the former Soviet Union (see Shaw, 2002; Pridemore, 2007). Some, however, argue that countries undergoing similar socio-political changes to South Africa currently experience far lower levels of crime, particularly with respect to violent crime (see Kynoch, 2005; Altbeker, 2007). For example Mozambique and El Salvador, despite both having experienced protracted civil wars, do not have levels of crime and violent conflict that approach those of South Africa.

Explanations for the current high crime levels in the country are typically divided into those either associated with the legacy of apartheid or those related to the transition to democracy. Typical explanations include the post-apartheid influx of African migrants (Berg and Schärf, 2004), and the ‘culture of violence’ born out of the nature of apartheid and the anti-apartheid struggle (Elder, 2003). Other explanations cite a faulty and ill-equipped criminal justice system (Smith, 1997), rising inequality (Altbeker, 2007), and the ready availability of drugs and firearms (Maree, 2003; Berg
and Schärf, 2004). For all the apartheid-era rhetoric theorising crime in the country, few empirical efforts have been made to test their validity. Dixon (2001, p.215) provides a scathing attack on local crime researchers for their lack of any serious empirical attempts to account for the country’s high levels of crime. Dixon comments on the “alarmingly amateurish, and crudely positivist research” being conducted as well as the proliferation of technical quick-solutions to what remain deep-seated social problems. Moreover, the spatial component inherent in crime analysis has also been largely neglected. Indeed ecological explanations for ‘where crime occurs’ and ‘where offenders live’ in post-apartheid South Africa are only now beginning to emerge from local literature (see Brown, 2001; Blackmore, 2003; Breetzke and Horn, 2006; Breetzke and Horn, in press). This is astonishing for a country steeped in socio-spatial segregation and where social, economic and, more specifically, spatial contexts shape the urban landscape. Indeed the apartheid system was predicated upon the segregation of South African society into specific geographical areas yet the social ecology of apartheid and its link with crime in contemporary South Africa is one of the least researched.

In an attempt to address this shortcoming I outline a theoretical context to explain the ecological patterns of crime in post-apartheid South Africa. The basic thesis is that macro-social patterns of racial and spatial inequalities, born out of repressively enforced apartheid-era segregationist policies, has given rise to ecologically marginalised and stereotyped communities whose means of improving their socio-economic status is restricted by historical circumstance. Crime and developmental policy implications are reviewed and discussed, in light of the theoretical context outlined, and strategic recommendations are made for the future.
A HISTORY OF CRIME IN SOUTH AFRICA

Post-apartheid South Africa has been plagued with high and rising levels of crime, but what comparisons can be drawn with the former apartheid-era? This section outlines three interrelated dimensions of crime in apartheid and post-apartheid South Africa: First, the magnitude of crime; second, the location of crime; and third, the location of offenders.

Apartheid (1951 – 1994)

- The magnitude of crime

It is difficult to estimate the magnitude of crime in South Africa for the years preceding transition. The reasons for that are three-fold. First is the blurred distinction during the apartheid-era between political violence and criminal or opportunistic violence. Political and criminal violence were two sides of the same coin with the state itself often being a significant source of criminal activity. Indeed, the state was not only engaging in criminal predation itself but openly fomenting and sponsoring criminals in campaigns against its political rivals, particularly the ANC (Kynoch, 2005). The former South African Police (SAP) typically acted as agents of the state against ‘apartheid offences’ with only one in ten members of the SAP actively engaged in criminal detection and investigation during this period (Dipenaar, 1988). Second is the under-reporting of crime by the black African, Coloured and Indian populations prior to political independence. Despite the under-reporting of crime being a worldwide phenomenon, this was undoubtedly exacerbated under the apartheid government during which the SAP was more a counterinsurgency force constrained to fighting political enemies than a bastion of law and order (Samara,
Under apartheid the SAP “protected whites and oppressed blacks” (Adepoju, 2003, p.17) and the deep animosity between the black population and the police undoubtedly affected crime reporting and recording. Last, the limited crime data that are available for the apartheid-era exclude crime occurring in the bantustans\(^1\) or so-called ‘independent black homelands’. The result is that crime statistics up until democratisation still present analysts with prodigious ‘black holes’ where data is completely absent for these areas (Louw, 1997). While the actual extent of crime during the apartheid period is difficult to ascertain, researchers suggest that ‘ordinary’ crime levels preceding the outbreak of politicised hostilities in the mid-1980s were extraordinarily high (see Louw, 1997; Shaw, 2002; Kynoch, 2005). Examining the admittedly fallible crime data that is available, it is evident that crime was on the rise since the mid-1980s, with statistics indicating that even at the height of politicised violence in the early 1990s the number of deaths attributed to political conflicts made up only a small fraction of total deaths (Louw and Schönteich, 2001; Kynoch, 2005). Between 1990 and 1994 the overall reported crime rate rose more than 18%, and the rate of violent crime by 35% (Simpson, 1998). Moreover, the well-publicised Truth and Reconciliation Commission (TRC) came to the stark conclusion that criminal activities may well have been responsible for the largest part of the violence in the early 1990s (Bonner and Nieftagodien, 2002).

- The location of crime

Few studies were conducted during apartheid investigating the location of crime. Notwithstanding the problems with recorded crime data during this period, briefly referred to above, the region-specific and demographically representative monitoring of crime began only after the ANC came to power in 1994 (Blackmore, 2003).
until that point crime statistics were only available for minority white areas, whereas crimes committed to the majority of the population were left unreported, badly documented or “generally ignored by the government of the day” (Blackmore, 2003, p.447). Relying exclusively on anecdotal evidence researchers highlight the impoverished black settlements as being the primary location of criminal incidents in apartheid South Africa (see Elder, 2003; Kynoch, 2003a; Kynoch, 2005; Altbeker, 2007). These black settlements, or so-called townships² were primarily located on the white urban periphery and were a consequence of segregationist legislation introduced by the apartheid government during the 1950s. Originally envisaged as dormitory towns for mainly black male migrant workers from the homelands, townships soon mushroomed into densely-populated and ethnically diverse spaces synonymous with vigilantism (Harris, 2001), extreme poverty and socio-economic deprivation (Kynoch, 2005), inadequate and corrupt policing (Kynoch, 2003b), politically motivated hostilities between the former armed wing of the ANC, Umkhonto we Sizwe (MK), and the state security forces as well as parochial power struggles between rival black African political groups such as the ANC and the IsiZulu-based Inkatha Freedom Party (IFP). Commenting on the violence during the early 1990s Duncan (2003, p.11) refers to a “low intensity war” occurring in the townships with daily reports of bomb blasts, internecine battles and the assassination of influential political figures.

According to Kynoch (2005) legislation was introduced to eradicate criminal activity during apartheid but this was only applied to bring white society under control whereas the townships were ignored (unless perpetrators infringed on whites). This tendency continued throughout apartheid where policing was initially confined to making sure the white spaces were safe but largely neglected the murder, rape and
gangsterism that was flourishing in the townships (Brewer, 2000). The Soweto Uprising of 1976, however, resulted in more urgency on the part of the apartheid government in general, and the SAP in particular, to ‘govern’ townships. Not only did the Soweto Uprising further undermine police-community relations but it also provided a message that blacks were mobilising and prepared to engage in civil conflict against the apartheid regime (Kynoch, 2005). But while the SAP began to re-focus their attention towards the townships their intentions were once again aimed primarily at rooting out political offenders while continuing to neglect the criminals in these areas. An unfortunate offshoot of these developments was the formation of a number of vigilante movements, often politically aligned, which sprung up to address the scourge of crime afflicting local township residents. Township vigilante groups such as Makgotla were established “to protect residents against their own children who were professional criminals and murderers” (Kynoch, 2005, p.499). Despite their violent methods, these vigilante groups continued into the 1980s until they were eclipsed by street committees and self-defence units (SDUs) established by ANC supporters to maintain law and order (Kynoch, 2005). Indeed, Leggett (2004) attributes much of the organised ‘black on black’ violence during the transition period to clashes between SDUs and the self-protection units (SPUs), which were the IFP equivalent.

Two other types of law enforcement were later introduced to stem the tide of violence in the townships: the kitskonstabels and the municipal police. The kitskonstabels were what Leggett (2004, p.157-158) describes as “instant constables, trained in six weeks, granted full police powers (but not full police membership), and cut loose on the townships”, while the municipal police were “slightly better trained and placed
directly at the command of the puppet black authorities.” Negating their mandate of maintaining law and order in these areas both law enforcement bodies were notorious for drunkenness, corruption, and a brutality beyond that of the white security forces (CIIR, 1988). In summary, Kynoch (2005, p.496) notes that townships were places where social and economic deprivation, combined with repressive policing, criminal predation and a corresponding reliance on vigilantism, produced urban environments in which violence frequently became a normative means of “pursuing material interests, resolving conflicts and seeking ‘justice’”

- Location of offenders
Whereas the majority of crime was arguably located within the townships, the most common criminological interpretation is that the majority of offenders were located in the townships as well. While few empirical investigations were forthcoming during this period, a number of face-value observations inform this assumption. First, ubiquitous influx-control laws and various regional development plans prohibited the free movement and association of black residents outside designated spaces such as the townships. The so-called pass laws were deliberate attempts to curb black urbanisation and to stop black migration to the white urban core (Emmett, 2003) and unwittingly ‘trapped’ criminals and their victims within the same spatial sphere. Second, researchers have noted that criminal gangs and local strongmen, often operating under the guise of vigilante groups, openly resided and operated in the townships prior to the advent of politicised hostilities (see Louw, 1997; Kynoch, 2005). Third, with few informal control mechanisms such as police patrols in the area, criminals in the townships effectively had free reign and were unlikely to travel long distances in the pursuit of illegal gains. In any event, individuals who resisted the pass
laws effectively resisted apartheid (Elder, 2003) and perpetrators would be unlikely to risk arrest for an ‘apartheid offence’ when they were committing opportunistic and/or criminal atrocities within their own community.

In summary, while a number of factors preclude any definitive statements to be made regarding apartheid crime levels, it is generally acknowledged that crime was high and rising long before democratic rule. Anecdotal evidence suggests that the majority of crime occurred in the townships on the fringes of the white urban core, with offenders typically residing in the townships as well. The dawn of democracy and the concomitant promise of a new life for all raised popular expectations among the majority of South Africans that crime levels would subside but the reality has been the antithesis.

The Rainbow Nation (1994 – present)

- Magnitude of crime

The euphoria of political transformation in 1994 brought with it an initial spike in crime levels in South Africa as a result of the inclusion of the ten bantustans in the crime count for the country (Leggett, 2004). In the same year Interpol ranked South Africa as the second most dangerous country in the world to live in and second in the world with respect to sex-related crimes. Following the peak in crime levels, the country experienced what Berg and Schärf (2004, p.61) refer to as the “honeymoon period” from 1994-1996 during which crime levels dropped and momentarily stabilised. Since 1997 however, levels of crime in the country have continued to rise steadily, with a levelling off in 2000/01, a dip in 2001/02, and then a gradual rise again reaching a new peak in 2003/04 (Altbeker, 2007). Notwithstanding the
limitations inherent in officially recorded crime data, the basic trend over the past fourteen years of democracy has been a dramatic escalation of crime from 1997 to 2003/04 followed by a gradual decrease to 2006/07.

Anecdotal explanations for the rise or ‘continuing rise’ of crime in post-apartheid South Africa are myriad. Kynoch (2005) reports that ANC- and Inkatha-affiliated ‘warlords’ represented under the guise of the now defunct SDUs and SPUs became unrestrained by centralised command structures after apartheid, and with little fear of being penalised by the group they claimed to represent, turned to crime as a means to survive. As Kynoch (2005, p.496) states: “such elements were unlikely to put down their guns and relinquish power merely because politicians declared the fighting to be over.” Altbeker (2007, p.146) believes the post-1994 crime wave has been driven by its own “runaway internal energies” rather than underlying social and economic conditions. Altbeker believes that crime in the country has become so pervasive that it has dragged others with a higher resilience against the temptations of criminality into crime. A more nuanced conceptualisation of crime in South Africa is outlined by Shaw (2002), who attributes the growth in crime in the country to the breakdown of community and related principles of social organisation, including crime control arrangements and reduced risks of punishment. Shaw argues that the growth in the country’s crime levels is also a factor of two critical and inter-related issues: the availability of firearms and the increased organisation of some aspects of criminal activity. In terms of the former issue, Shaw (2002, p.6) states:

“In transitions where a high level of violence has been a dominant feature of the society in the pre-transitional period, and where the nature of the peace settlement in the society is effectively a stalemate,
people on both sides of the divide either retain their arms because
they do not trust the opposition, or buy new ones because they fear
the future.”

Other researchers attribute growing crime levels in post-apartheid South Africa to the
‘culture of violence’ that was nurtured and inculcated into South African society
under apartheid (see Schwabe, 2000; Maree, 2003; Leggett, 2004; Berg and Schärf,
2004). Accordingly the violent nature of the political struggle has resulted in violence
becoming ‘normalised’ in certain segments of South African society.

• Location of crime

All crime in post-apartheid South Africa is captured in the newly formed Case
Administration System (CAS) of the current South African Police Services (SAPS).
The CAS is used to collate crime information that are subsequently released to the
public annually in the form of crime statistics. These crime statistics are released in an
aggregated form as a crime count per police precinct. A historical review of crime
statistics since democratisation illustrates the escalation of crime in police stations
located in the townships of South Africa. According to the latest crime statistics for
2006/07, the majority of violent crimes occur in townships near South Africa’s six
major metropolitan areas. Of the 124 police stations with the highest crime levels in
the country, which account for nearly 40% of the total violent crimes (ie. murder,
attempted murder, rape and assault with attempt to cause grievous bodily harm
(GBH)), 64% are located in the townships. Among the 10% of police stations with the
highest levels of violent crime in the country, none were located in former ‘whites-
only’ police stations. Furthermore, of the police stations that account for over 40% of
the country’s general aggravated robbery, car hijackings, house robbery and business
robbery crimes: 46%, 21%, 38%, 10% are located in township police stations respectively. In a socio-crime classification of 1100 police stations in South Africa, Schwabe and Schurink (2000) note that police stations located in the townships had exceptionally high total crime numbers with all crimes committed being above the national average except for shoplifting and the contravention of the Explosives Act.

Two additional crime trends are pertinent in post-apartheid South Africa. The first is the overall increase in crime in police stations located in the former ‘whites-only’ neighbourhoods. The latest crime statistics indicate that Sandton, an affluent former ‘whites-only’ neighbourhood located in Johannesburg, was named the country’s most dangerous neighbourhood for armed house robbery with 343 families attacked at gunpoint in the 2006/07 financial year. Sandton was also named as one of the highest risk areas for three other categories of crime – hijacking, business robbery and general aggravated robbery. Other police stations located in affluent former ‘whites-only’ neighbourhoods also rank among the country’s most dangerous and include Garsfontein, and Brooklyn (in Tshwane) and Honeydew, and Randburg (in Johannesburg). A second notable trend is the rapid growth of crime in police stations located in the Central Business Districts (CBDs) of all major metropolitan areas. Police stations located in the CBDs of Johannesburg, Durban, Pietermaritzburg, Tshwane and Cape Town consistently exhibit high levels of crime, particularly economic crimes.
• Location of offenders

Despite extensive ecological studies of delinquency internationally (see Schuerman and Kobrin, 1982; Bursik, 1984; Bursik and Grasmick, 1992), until more recently, not a single local study had been conducted investigating the location of offenders in post-apartheid South Africa. This shortcoming was addressed by Breetzke and Horn (2006) who investigated the spatial relationship between a population of offenders and a range of socio-demographic variables in the city of Tshwane. The researchers found that 3% of the neighbourhoods in Tshwane accounted for almost 41% of incarcerated offenders, with all major concentrations of offenders emanating from the townships in the northern periphery of the municipality. The location of offenders was also found to be associated with low social status and income, a large and young family, unskilled earners and high residential mobility. In a follow up study Breetzke and Horn (in press) created an offender profiling system for Tshwane. Using a data driven methodology, the 371 neighbourhoods of Tshwane were classified from high to low risk for offender development on the basis of a number of ecological risk factors. According to the authors the geodemographic groups classified as high-risk for offender development were mainly characteristic of the townships. Even neighbourhoods with current low offender rates but still categorised as high risk for offender development were primarily located in the townships. Distinct socio-demographic factors were associated with these high-risk clusters including a low socio-economic status, low income, and a disrupted family. Almost 99% of the residents living in neighbourhoods at a high-risk for offender development were black, while 70% of white people lived in neighbourhoods classified as low-risk.
It is difficult to say for certain whether crime is increasing or decreasing in post-apartheid South Africa. The questionable accuracy and authenticity of the limited apartheid-era crime data that is available for the country makes direct comparisons between crime levels over the two periods problematic if not impossible. Empirical evidence suggests that the location of crime in post-apartheid South Africa appears to have been marginally displaced from the townships to the former ‘whites-only’ neighbourhoods. Whilst both regions currently experience high levels of crime, the repressive apartheid-era policing policies previously shielded the minority white population from the scourge of crime affecting the spatially isolated townships. In contrast, the vast majority of offenders continue to emanate from the impoverished townships although perhaps driven less now by political than by criminal motives. Based on this brief discourse it is evident that a thorough understanding of the spatial ecology that continues to characterise townships in post-apartheid South Africa is key to any current theorising of crime and its causes in the country.

**SPATIAL SYMBOLS OF CRIME IN POST-APARTHEID SOUTH AFRICA**

The democratic transition in South Africa saw sweeping political, economic, and ideological changes in the country. Arguably the biggest change from an ecological perspective was the abolition of statutory urban segregation and the elimination of the pass laws that had previously hindered the free movement of black residents. It was the enactment of the Group Areas Act of 1950 (Act 41) that initially heralded the ideology of segregation or the separate socio-spatial development of the many diverse races of the country. The Act was premised upon the spatial fracturing of South African society by comprehensively segregating its residents according to certain
state-defined racial groups. Millions of blacks were, in some instances, evicted from their homes and forcibly removed from white areas to specific urban spaces, separated by buffer zones of open land (Spinks, 2001). The socio-spatial redesign saw the formation of a number of black urban periphery townships in areas distant and distinct from the white urban core. Being spatially secluded from white commercial and economic centres, township residents naturally felt economically and socially marginalised as apartheid’s explicit white socio-spatial supremacy began to take hold.

According to Simpson (1998, p.67) young black South Africans initially proved resilient in the face of such marginalisation and forged sub-cultures within political organisations during the 1970s and 1980s. Simultaneously however, Chikane (1986) observes that being a township resident in apartheid South Africa meant residing in squalid, crime-infested ghettos characterised by widespread malnutrition, poor or non-existent health systems, poor education in ill-equipped and overcrowded schools, inadequate or non-existent social security, high levels of unemployment, and quotidian experiences of racist prejudice and abuse.

In this article I argue that townships have become spatial symbols of crime whose ecological character and conditions, to some extent, pre-determine criminal behaviour and reinforce criminogenic stigmas and attitudes in residents. The notion that a geographical area can be the determining influence of crime and delinquency has its roots in the ecological tradition in criminology. Ecological theories of crime attempt to locate the causes of crime and delinquency within some form of social structure that exists external to the individual. Common research in the ecological tradition has been dominated by social disorganisation theory (Shaw and McKay, 1942) yet more integrated theoretical frameworks have been proposed to account for the differential
distribution of crime and delinquency in cities (see Cohen and Felson, 1979). In following the ecological tradition, the current discourse motivates that the presence of ‘past’ socio-economic deprivation coupled with historically high levels of crime and offenders within township communities has predisposed many residents to criminal behaviour. Subsequently, these geographic areas, spatially delineated by the apartheid government, have developed their own criminogenic identities as a result of a period of long and sustained social and economic neglect coupled with a constant exposure to crime. Insofar as the ecological perspective assumes that what is happening to or with a resident is dependent on the neighbourhood in which he or she is living (Elffers, 2003) it would appear, based on this discussion, that if a resident should move away from the townships their chances of resorting to crime would alter significantly.

Of course it is true that the spatial stratification of communities by concentrated disadvantage has emerged historically at multiple levels of geography. And it is also true that some researchers have previously suggested that neighbourhoods could be criminogenic in and of themselves (see Sampson and Raudenbush, 1999; Sherman et al., 1989). But what makes the South African experience ecologically unique is that these ‘criminogenic’ areas not only emerged as a direct result of a repressively enforced racist spatial planning policy but there were also few legitimate means for residents of these areas to escape. Notwithstanding the inherent financial constraints involved in moving residence, black inhabitants under apartheid were legally and oppressively bound to their place of residence. In this context the racial segregation of South African society isolated and marginalised these communities and left them vulnerable to neglect, discrimination, and a plethora of ecological risk factors for
delinquency. Of course, these conditions do not affect everyone the same and there are certainly neighbourhoods within the townships where these ecological risk factors are less prevalent but the effect of these risk factors on those township residents that are more prone to criminal behaviour - perhaps by circumstance - is crime.

The changing urban structure of post-modern South African cities albeit in the context of the apartheid legacy, continues to provide an ecological context for examining how crime permeates throughout the country. Whilst township communities continue to be historically and economically bound to the city, the years since democratisation has seen a metonymic shift in the previous ‘black-white’ urban divide. The emerging black middle-class has migrated from the townships and into the more affluent former ‘whites-only’ neighbourhoods, while those blacks not advancing socio-economically are left behind. As Mabin (2005, p.52) however states, “the paths out of the townships are little trodden by outsiders moving in” as blacks increasingly occupy former ‘whites-only’ neighbourhoods but with the townships remaining much less penetrable to whites. Moreover, residential desegregation has resulted in a greater crossover between black and white middle-class forged through a forced ‘common enemy’ in the form of crime. The result for the townships is that ‘new’ money and wealth generated from the emerging black middle-class is not being ploughed back into the townships but is redistributed in the former ‘whites-only’ neighbourhoods. As a consequence, the much anticipated urban growth and development in the townships has failed to materialise and townships continue to be ravished with poverty, crime, and a limited access to a range of urban services, and employment opportunities. Former ‘whites-only’, neighbourhoods, on the other hand, are becoming desegregated as more and more black residents move in.
This new racial *status quo* in South African society has however been met with resistance among whites that are often framed in terms of what Durrheim (2005, p.444) refers to as “spatial metaphors.” Whites experience desegregation in terms of their displacement and, driven by spatio-temporal practices, either emigrate or move into even more exclusive fortified enclaves (Durrheim, 2005). Alternatively the now-desegregated former ‘whites-only’ neighbourhoods become ‘gated communities’ cordoned off from the rest of society complete with walled perimeters and guardhouses. These newest forms of neighbourhood development are what Mabin (2005, p.51) describes as:

“the new compounds of urban South Africa, representing tightly defended social segregation…. [and] are a response to the failure of the state to maintain the quiet conditions of white suburban life of the not-too-distant past.”

In all instances, far from desegregating South African society, repealing the Group Areas Act in 1991 has only served to deepen existing socio-spatial segregation, albeit less in terms of race but more in terms of class and a fear of crime.

In this section I have argued that the segregation and subsequent marginalisation of the majority black population under apartheid can help to explain the nature and magnitude of crime in transitional South Africa. In this context, socio-economic impoverishment, and a ‘desensitivity’ to violence, has colluded to create ecologically isolated and stereotyped communities in townships throughout the country. But what are the policy implications for such a heuristic argument? In order to evaluate these it is imperative to review the range of crime and developmental policy initiatives that have been forthcoming since democracy.
CRIME AND DEVELOPMENTAL POLICY IN POST-APARTHEID SOUTH AFRICA

From early on in the transition process, the newly elected ANC government recognised the proclivity of crime and violence and pledged to take a social developmentalist approach to their crime reduction policy (Samara, 2003). The government understood crime to be a symptom of historical injustices and felt instinctively that a focus purely on punishing criminals would be “to add carceral insult to socio-economic injury” (Altbeker, 2007, p.137). As a result the South African cabinet adopted a crime prevention orientated policy aimed at governing policing in post-apartheid South Africa: the National Crime Prevention Strategy (NCPS) of 1996. The NCPS advocated a macro-strategy towards crime and aimed at shifting the approach to crime in South Africa from crime control to crime prevention (NCPS, 1996). Partnerships were promoted as a mechanism for preventing crime, along with shared responsibility among a range of government departments, rather than just the police and the courts (Bruce, 2006). A proper and adequate analysis of the root causes of crime was recommended that would then inform a suitable crime prevention approach.

In order to identify the supposed root causes of crime, and simultaneously address the historical imbalances in South African society, the NCPS was enveloped in the Reconstruction and Development Programme (RDP). The RDP was an integrated, inter-departmental and holistic approach towards post-apartheid change that aimed to meet the basic needs of all South Africans and provide the assurance that each citizen would have a decent standard of living and economic security (RDP, 1994). Implicit
in the RDP was the notion that the socio-spatial distortions of the apartheid-era would be addressed through restructuring of the state (Maharaj and Ramutsindela, 2002). The RDP document aimed to integrate economic growth with development and reconstruction despite the common view that the two processes are contradictory (Peet, 2002). For all the ambition of its authors the RDP was essentially an electioneering tool used by the ANC to raise popular expectations about life in democracy (Tsheola, 2002), and rather predictably failed to address the immediate developmental needs of the poor (Ntsime, 2003; Adepoju, 2003). The failure of the RDP to promote economic growth coincided with the collapse of the NCPS and a move away from a socialist and crime prevention orientated approach to crime reduction. An assessment of the NCPS after its first year found that virtually no action has been taken on the two ‘social pillars’ of the strategy: crime prevention through environmental design and community values and education (Simpson and Rauch, 1999), while an assessment of the strategy after five years found that with the possible exception of victim support, most of the social programmes envisaged by the NCPS never came to fruition (Leggett, 2004). Mounting political pressure over the high crime levels and a growing fear of crime among the public began to make the apparent wisdom of the government’s conviction that crime had its roots in social problems that must be tackled first, sound like a refusal to take responsibility (Altbeker, 2007). A new Minister of Safety and Security, Mr Steve Tshwete³, and a new National Commissioner of Police, Jackie Selebi, were quickly ushered in under the Thabo Mbeki administration in 1999 and a more authoritarian crime reduction policy shortly followed.
The National Crime Combating Strategy (NCCS) (2000-present) was launched in April 2000 to guide operations and resources at a police station level. The NCCS adopted a more intelligence driven approach to policing that aimed to reduce crime in selected crime hot spots throughout the country that accounted for nearly 50% of all crime incidences (Nqakula, 2003). The NCCS is conceptually broken down into two phases: the stabilisation phase (2000–03) and the normalisation phase (2004–09). In the first phase the intended aim is to ‘stabilise’ crime in roughly 140 police stations (about 10% of police stations) identified by the SAPS that accounted for more than 50% of serious crime in the country (Leggett, 2004). The stabilisation of crime was to be accomplished through saturation policing by both the SAPS and the military (Leggett, 2004).

In 2004 the NCCS theoretically entered into its second phase of operation: normalisation. During this phase the SAPS intended to initiate social crime prevention initiatives in the now-stabilised hot-spot areas, and planned to keep crime levels low in these areas through sector policing. It is difficult to evaluate the first phase of the NCCS in stabilising crime levels in priority areas of the country since no public document has ever been issued describing the NCCS in any detail (Leggett et al., 2003). More depressingly Samara (2003) reports that no social crime prevention programmes were outlined for the 140 priority police stations after the so-called ‘stabilisation’ of crime levels. So whilst a number of arrests were no doubt made during the stabilisation phase of the NCCS, no medium to long-term strategies have been adopted to address the ecological risk factors that gave rise to the crime in the first place.
The change in crime reduction policy from the NCPS to the NCCS also saw a change in the ANC government’s economic and development policy from the RDP to the Growth, Employment and Redistribution strategy (GEAR). According to Maharaj and Ramutsindela (2002), GEAR is a market-driven strategy that:

- emphasises that socio-economic development will be lead by the private sector
- there will be privatisation of state-owned enterprises
- government expenditure on social services will be reduced
- exchange control regulations will be relaxed, and
- there will be a more flexible labour market.

Whereas GEAR reiterated the RDP’s link between economic growth and the redistribution of incomes, it argued that much higher economic growth rates were necessary to achieve social objectives (Peet, 2002). GEAR was seen to favour big business over the working class and its implementation in city councils and municipalities has resulted in the collapse of basic services in regions that need them most, notably the townships (see Narsiah, 2000; Tsheola, 2002; Peet, 2002). According to Bond (2000), the strategy has little appeal beyond the increasingly multi-racial elite and entrepreneurial classes and is envisaged as a strategy that will perpetuate poverty in the country, with Tsheola (2002, p.26) strongly arguing that, “far from producing ‘a better life for all’, GEAR is producing a zero-sum outcome”.

So whereas the predominantly affluent white and emerging black elite have either had their post-apartheid fears allayed, in terms of the former, or their post-apartheid economic aspirations met, in terms of the latter; the vast majority of the inhabitants of the country continue to be socially and economically deprived.
Indeed, the heightened aspirations of these - predominantly township - residents have been coupled with economic reforms such as GEAR that have not yet been associated with job creation and increasing incomes (O’Donovan, 1998). On the contrary, socio-economic reforms and infrastructure development have largely ignored township residents and tended to favour the affluent white and growing black elite. One pertinent example is provided in the form of the Gautrain – a high-speed rail link being developed between Johannesburg, Tshwane and the Oliver (OR) Tambo International Airport. The project, which is currently the biggest rail project under construction in the world, is due for completion in March 2011 and will cost the state approximately R21.9 billion ($3.2 billion). Despite coming under heavy criticism from opposition parties and labour federations for neglecting the poor and not servicing the transport needs of township residents (IRIN, 2006), the ANC government maintains that the Gautrain is not transport for the elite but for the public at large. The proposed route of the Gautrain however bypasses all townships located within the Gauteng province and rather services the former ‘white’ urban hubs of Sandton and Rosebank (in Johannesburg) and Centurion and Hatfield (in Tshwane). Meanwhile up to 300 000 daily commuters, most of them residents of the impoverished townships on the outskirts of Tshwane and Johannesburg will have to continue to use the Metrorail, a dilapidated state-run surface network plagued by old infrastructure and machinery (IRIN, 2006). While private sector interests continue to play a determining role in effecting spatial change in the country (Mabin, 2005), an increasing juxtaposition of prosperity and poverty transpires among the country’s population that is still defined predominantly by race and reinforces a sense many township residents have of their own deprivation and entrapment.
CONCLUSION

The question of apartheid and crime remains as salient as ever but the ecological playing field has significantly altered over the past 60 years. Apartheid South Africa was plagued with high and rising crime levels in a fractured and segregated society. Crime was confined to the apartheid-engineered townships on the periphery of the white urban core with offenders primarily located there as well. Affluent ‘whites-only’ spaces typically exhibited ‘not in my backyard’ (NIMBY) exclusionist and escapist mentalities whilst segregated black spaces were typically characterised by political and/or criminal violence and crime. The liberation from apartheid has resulted in a continued increase in crime levels across the country. Whilst crime has spatially diffused somewhat to former ‘whites-only’ neighbourhoods, the vast majority of crime and offenders continue to emanate from the townships.

This paper has argued that certain geographical areas of the country, such as the townships, have become spatial symbols of crime that predispose residents to criminality. In this context, a chain reaction was set in place under apartheid, which has seen a self-reinforcing cycle in which levels of crime and delinquency within certain regions of the country have created a context that favours their perpetuation. A form of spatio-criminal determinism has emerged among a number of current residents of the townships that is embedded in, and dictated by, apartheid-era segregationist policies that have yet to be alleviated in the post-apartheid-era. Moreover the ecological context of townships has instilled ‘criminogenic’ norms, values and behaviours in individuals and has triggered a cycle of criminality in these communities. Indeed, in a test of social disorganisation theory in South Africa
Breetzke (in press) found that 87% of a population of offenders incarcerated in correctional centres in Tshwane were residing in the townships at the time of their apprehension.

The notion of apartheid’s socio-spatial divides pre-determining criminal behaviour is contentious; but it does have implications for crime reduction and associated developmental policy. Currently post-apartheid crime and development planning policies instigated by the ANC have largely neglected the spatio-historical context in which crime is occurring. In terms of crime reduction policy, the change from the crime prevention paradigm of the NCPS to the law enforcement approach of the NCCS has effectively resulted in the ecological forces causing criminal events, many of which have a skewed spatial distribution, being ignored. Instead a repressive law enforcement approach is now followed which is predicated upon ‘capturing criminals’ (Leggett, 2004). In terms of developmental policy, the abandonment of the neo-populist, basic-needs-orientated RDP in favour of global, neo-liberal GEAR has effectively meant that the state has fallen prey to globalisation and reneged on their promise to address structural issues, and redress social inequity at a national level. Meanwhile empirical evidence in the country suggests that crime and socio-economic deprivation are strongly linked (see Brown, 2001; Blackmore, 2003; Breetzke and Horn, 2006) which according to Samara (2003) belies attempts to approach crime and security separately from socio-economic developmental issues. While it may be dangerous to conflate crime prevention with economic and developmental policy, the failure to understand crime and its causes in ecological terms in the country will result in future policy discussions taking place in an analytical and empirical vacuum.
This paper has outlined a theoretical context for understanding crime and delinquency in South Africa. But what solutions can such knowledge provide? From a purely crime reduction perspective an integrated inter-departmental national strategy is required that is predicated upon a rapid and rigorous social and economic upliftment of certain criminogenic regions of the country, most notably the townships. The strategy should ideally be aimed at utilising all available government resources to first improve basic infrastructures, in particular roads, stormwater drainage, piped water, sewerage and street lighting, among others, in these regions of the country. Second, ‘enjoyment infrastructures’ should be built that focus on youth activities such as shopping malls, libraries, swimming pools, and sportsgrounds. In this way the current spatial symbols of crime can become spatial symbols of the ‘Rainbow Nation’. The allocation of these developmental tasks should be coupled with clearly identifiable and measurable goals and more importantly, particularly in a developing world context, accountability on behalf of the national and provincial government departments and other key role players. But whilst the upgrading of these spatial symbols of crime should ideally have some effect on the crime rate, a substantially more difficult challenge is to transform the criminogenic mindset that besets the occupants of these spaces. Failure to address this pervasive mindset, in addition to the targeted socio-economic upliftment of such areas, will result in a continued crime pandemic in the country that no amount of deterrence policing or state spending will be able to counter.
ENDNOTES

1 The ‘Bantustans’ were black homelands artificially created by the apartheid government. In total ten homelands were created throughout South Africa from the 1950s to 1994 in order to separate different races from each other and allow each area to develop autonomously.

2 ‘Township’ refers to built-up residential areas (neighbourhoods) that are still dominantly (+95,0%) inhabited by black people. Under the apartheid policy focusing on separate development, these areas were originally reserved for black people only. When they were established during the 1950s and 1960s they were never intended to grow into fully developed and independent communities with a complete infrastructure (eg. shops, community and recreational facilities, work places, etc). They were seen as dormitory towns for mainly male migrant workers from the then homelands. Today most of them still include a more stable; higher socio-economic (chiefly lower middle class) area inhabited by people who have lived there for a long time or whose parents/relatives had lived there since the establishment of the township. These older and more established areas may have developed features such as taverns, clubs, recreational facilities and churches, which have turned such areas into fully fledged communities. However, around or next to such areas more informal settlements and ‘matchbox’ developments sprang up over the past two decades (eg. Vosman next to Kwaguqa which served as the original township of Witbank). Although not intended, these differ little from the original dormitory towns. In the fifties, sixties and seventies separate townships were also built for the Coloured and Indian population groups. These townships (like Phoenix and Chatsworth for Indians and Hanoverpark, Mitchells Plain and Eldoradopark for Coloured people) were
mainly populated by people removed from so-called white areas (e.g. people removed from District Six and Sophiatown). From the beginning they differed from the black townships in the sense that they did not experience the mass influx from rural South Africa and later from even further afield. Since the abolition of influx control in 1986 many black people started to squat next to these Indian and Coloured areas, while particularly since 1994 (or even before that date) many Indians and Coloured people moved into previously ‘white’ areas (or the areas where they had lived prior to the 50's). More and more black squatters subsequently moved into these former Indian and Coloured ‘group areas’ (Extract from SAPS, 2007)

3 Mr Steve Tshwete passed away in 2002 and was replaced by Mr Charles Nqakula.

4 Sector policing is an approach to policing whereby police stations are divided into smaller sectors, each with a police member or team of members assigned to it. These members are expected to consult with the communities they serve to identify crime problems and their solutions.

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REFERENCES


*Transformation*, 56, 41-64.


CHAPTER 8

CONCLUSION

This thesis has illustrated how a better theoretical understanding of the ecological aspects pertaining to offending in South Africa is possible if a geo-analytical system is employed which is capable of synthesising the demographic contexts of space. A geodemographical classification system was developed because it offered such an integrative framework, and I have illustrated how the elements of this approach can illuminate current work within the ecological analyses of crime. Chapter 2 began the thesis by identifying five key requirements in the pursuit of an urban ecological theory of crime in South Africa. These requirements were based on an extensive literature review of existing criminological and geo-analytic research on crime in South Africa. Chapter 3 provided an overview of GIS within a crime and policing perspective in South Africa. Among the geo-analytical techniques identified for future use were geodemographic classification systems. Chapter 4 began the practical process towards an ecological understanding of offending in South Africa by gauging the relevancy of the social disorganisation theory in a local context. Chapter 5 identified a number of ecological risk factors that shape criminal behaviour in Tshwane. Chapter 6 represents the practical apotheosis of the thesis wherein a geodemographic offender profiling system was developed for Tshwane using the geo-analytic technique identified in Chapter 3, the motivation espoused in Chapter 4, and the ecological factors identified in Chapter 5. In Chapter 7 the findings of the thesis was placed into theoretical context by chronicling the ‘spatial’ history of crime in the country.
Based on the requirements identified in Chapter 2, several major findings of the thesis are outlined:

1: Assess the present status of GIS within crime science in the country

- The integration of GIS within policing has been slow and prone to error. While the NCPS and the NCCS were legislatively charged with integrating GIS within policing structures in the country, the actual introduction of the technology within the SAPS has been problematic. There is also an alarming lack of documentation from the SAPS regarding the implementation and detailed operations of the GISes at priority police stations countrywide.

- Geodemographic classification systems can play a key role in understanding the causes of crime and offending in South Africa. The ability of a geodemographic classification system to cluster neighbourhoods based on social similarity means that different ecological contexts can be clustered together and investigated in terms of their relationship to crime and offending.

2: Gauge the applicability of international ecological theories of crime in a local context

- Little support is found for the social disorganisation theory in Tshwane. Of all the offender categories, the sexual offender category provided the best result with 19.1% of its variation being explained by the variables representing social disorganisation.
• The percentage unemployed – used as a proxy for social/economic deprivation – was the only variable that exhibited a significant positive relationship. Other variables were not significant with residential mobility exhibiting a significant negative relationship in the overall and violent offender category.

• There is a need to supplement ecological risk factors for offending with local knowledge when theorising crime and offending in a South African context. The inability of the social disorganisation constructs to account for the spatial distribution of offenders can be attributed to the differing historical contexts and definitions of certain variables applied locally.

• The ‘social disorganization of apartheid’ contrast with the social disorganization constructs. To this end a need was expressed to identify the ecological determinants of offending in South Africa using any number of socio-demographic variables.

3: Identify the ecological determinants of crime and delinquency

• The location of offenders within Tshwane is associated with the spatial incidence of four factors – low social status and income, a large and young family, unskilled earners and high residential mobility. Findings indicate that socio-economic factors play the most important role in shaping offending in South Africa.
• Offenders in Tshwane are located primarily in the townships. Whilst a small number of offenders reside in impoverished white areas, the majority of offenders are located in townships in the northern periphery of Tshwane.

• Whereas high residential mobility was found to be geographically associated with high rates of offending in Tshwane, the measure was not found to be significant in the test of social disorganisation theory. While it may be that residential mobility needs to be measured with different indicators than those used in the test for social disorganisation, the finding suggests that internal migration from outside the Gauteng province is more important in understanding offending than simply high mobility.

• A small number of suburbs in Tshwane contain a high number of offenders. The spatial distribution of offenders within Tshwane is highly skewed with 70 suburbs (18.9% of the suburbs of Tshwane) accounting for almost 85% of offenders incarcerated within Tshwane.

• Patterns of racial and spatial inequality linked to levels of offending are strongly interconnected. Compared to predominantly white suburbs, black African suburbs in South Africa have higher levels of socio-economic disadvantage, residential instability and disrupted families; creating a more favourable environment for offending for black Africans. Pockets of low-income white suburbs also experience high offender rates although these suburbs are socially and economically less prosperous than the vast majority of the traditional white areas.
4: Profile neighbourhoods based on risk

- Neighbourhoods at a high risk for offender development in Tshwane are among the poorest and most deprived in Tshwane with residents being predominantly unemployed and with numerous young dependents.

- Neighbourhoods at a low risk for offender development in Tshwane are more affluent with residents being employed with middle to high socio-economic status.

- Neighbourhoods at a moderate risk for offender development in Tshwane are dispersed throughout the city with residents being predominantly employed or economically active but in an unskilled occupation and with a modest provision of basic services.

- High risk neighbourhoods in Tshwane are primarily located in the townships and are mostly occupied by black Africans (99%). This contrasts sharply with the racial distribution of residents living in low-risk suburbs, where 70% of the residents are white and only 26% are black African.

- A total of 12 neighbourhoods at a high risk for offender development have offender rates below the average offender rate for the whole of Tshwane. These neighbourhoods are once again located primarily in the townships. This finding illustrates the strength of the system since offender rates are typically low in these 12 suburbs, but the risk for offender development is high.
• A critical re-assessment of the current police-based crime reduction strategy is required. The current policy initiative that is tasked with reducing crime in the country, the NCCS, is not addressing the derelict social and economic conditions in high risk regions throughout Tshwane but rather focuses on enforcing the law.

• Racial divisions still characterise and define South African society. These divisions have a strong socio-spatial legacy, borne out of apartheid, that the present and past ANC administration has largely failed to address.

5: Understanding the complexity of crime and the urban environment

• There is a complex dichotomous relationship between offending and the urban environment in South Africa. While the South African city is desegregating and losing its original modernist-apartheid features the social geographies for offenders have remained largely unchanged.

• The pre-1994 urban structure has been largely retained in the country despite developmental policies being put in place to rid the country of the socio-spatial distortions of the apartheid-era. A history of social inequalities and segregation has ensured that much of the country’s offenders remain distributed along social, economic and racial lines, with persisting geographic parallels to these distributions.
• Apartheid’s spatial legacy has resulted in certain regions of the country becoming spatial symbols of crime that to some extent precipitates criminality among residents. These regions of the country are typically the townships where previous exposure to crime and violence under apartheid has colluded with current unmet socio-economic aspirations to result in crime-prone communities.

• The distribution of offenders cannot be explained solely in terms of the apartheid meta-narrative. Individual and local circumstances of inhabitants also play a facilitating role in offending together with macro-level forces.

Assessing the scientific meaning of the study

The scientific value of this thesis can be assessed by examining (1) the main findings (presented above) that evolved from the study, and (2) the contributions to various disciplines utilised throughout the course of the thesis. These disciplines include geoinformatics (geoinformation systems and science), criminological and social science theory, and crime policy.

Geoinformatics

First, the study outlined the important contribution that GIS can make in the fight against crime in South Africa. The lack of the use of GIS in existing criminological research in the country is alarming yet this study has illustrated the potential of the technology to create tangible solutions to address crime issues. GIS has often been labelled as an enabling technology in that it supports all disciplines that must deal with spatial data. As crime is inherently a spatial phenomenon, only the users of the
technology limit the potential and further use of GIS in crime applications in the country. Second, in this study a new variant of a geodemographic classification system was developed using GIS software. This task-specific system integrated a variety of quantitative geo-analytical techniques (e.g. spatial correlation, factor analysis and cluster analysis) to profile neighbourhoods based on the risk of individuals resorting to criminal behaviour. The output of the system was displayed in a clearly defined taxonomic delineation of high-to-low risk areas. The method employed in the creation of the system is original and the resultant system provided valuable insight into delinquency and its etiology in South Africa.

Social and criminological science perspective

The study represents the first attempt to account for the spatial distribution of offenders in post-apartheid South Africa. As a result the findings of the study not only provide a first empirical clue of the geographical context of delinquency in South Africa but also allow a number of inferences to be made regarding the scientific meaning of these findings for international criminological theory.

First, a number of basic socio-demographic variables and other key factors, which are identified by leading ecological theories of crime such as the social disorganisation theory, as being key predictors of delinquency, are confirmed in the study; these include factors such as unemployment and socio-economic deprivation. Other variables however, which are common predictors of delinquency in ecological theory such as residential mobility give conflicting results. In general the study confirms that South African offenders are influenced by much the same ecological risk factors, as are ‘international’ or at least ‘Western’ offenders. Discrepancies do exist however and
this finding highlights the importance of historical circumstance, local community context, and their relationship to delinquency in South Africa. The findings suggest that the presence of ecological risk factors within the urban environment can have differential influences on an individual depending on their historical circumstance. For instance, being unemployed in South Africa is different to being unemployed in the United Kingdom (UK), the implications are different and the resulting behavioural patterns (criminal or non-criminal) elicited by individuals are different depending on historical circumstance. Similarly individuals react differently to being marginalised in, for example, the United States (US) as opposed to being marginalised in South Africa.

Second, the study highlights the need to include ‘unconventional’ variables in future studies of delinquency in South Africa. Factors such as political instability, historical neglect, and circumstance, and socio-economic exclusion, may be just as important as unemployment in predicting offender residence simply because these factors are so heavily concentrated in certain areas in the country and its cities and have strong geographical and historical undertones. It is only through a proper understanding of these ‘unconventional’ variables within which the plethora of ‘other’ ecological variables is displayed that one can truly begin to understand causality in ecological theory.

Third, neighbourhood effects can be considered as an independent risk factor for delinquency in South Africa. Certain neighbourhoods most notably located in apartheid’s black/non-white townships, cluster together on the basis of a number of ecological risk factors (also called spatial symbols in this study) for delinquency. This
finding suggests that the demographic context of townships has instilled ‘dysfunctional’ norms, values and criminal behaviour in residents and has triggered a cycle of social pathology that few residents escape. In international literature the idea of neighbourhood effects implies that residents in these so-called townships are themselves responsible for their own social and economic situation. This however is not the case, and this study illustrates how, in the context of legislatively charged exclusion and segregation policies, ecological crime ghettos can artificially emerge in an urban environment. It is widely acknowledged in international literature that a major shortcoming of neighbourhood effects lies in explaining why neighbourhood and individual circumstances are correlated. This study highlights the fact that a more thorough understanding of the socio-political context of neighbourhoods may go some way in explicating this problem. Understanding cultural and social exclusion, social marginality, perceived cultural inferiority within a historically repressive political framework could possibly explain why the neighbourhood has such a strong effect on behaviour, at least in the South African context.

Finally, the social geography of offenders has not changed since apartheid times. This is despite the changing structure and dynamics of cities in post-apartheid South Africa as well as increased spatial mobility and increased inter-connectivity. Township communities are still being exposed to a range of ecological risk factors for offending that continue to exist in these communities. Exposure to these ecological risk factors alone does not cause criminality per se, rather risk factors work over time to influence the likelihood of offending. Thus, the longer the exposure to these spatial symbols of crime, the greater the likelihood of criminality. For township residents under apartheid the exposure to criminogenic risk factors was both long and sustained. The
desegregation and deracialisation of the state has however, not resulted in any changes in the spatial patterning of delinquency in the country nor has it resulted in any significant improvement in addressing the derelict conditions in the townships but rather it has only served to accentuate spatial polarisations of race and class and led to more inequalities and, as a result, a surging and seemingly unstoppable, crime rate.

**Strategic, tactical and operational policy**

The identification of the ecological root causes of delinquency can assist in the prescribing of strategic policies that work to reduce crime. The fact that South African offenders are influenced by roughly the same ecological risk factors as ‘Western’ offenders has two significant policy implications. First, it implies that solving the crime problem in South Africa, at least from a long-term strategic perspective, is not as difficult as it may seem initially. This is because there are few ‘unknown’ or ‘unexplained’ geographical factors driving offenders in the country; in general, an highly mobile individual with a low social status, and low income, a large and young family and will resort to crime. Second, it may be possible to mimic other crime reduction initiatives and strategies that have worked to address the so-called root causes of crime internationally, within a local context. Unfortunately the current policy initiative that is tasked with reducing crime in the country, the NCCS, is not addressing the root causes of crime in high risk regions throughout South Africa, in general and Tshwane, specifically, and a critical re-think is required. For as long as the spatial symbols of crime are there, offenders will emerge.

From a tactical and operational perspective the change of focus on policy should be on detecting and managing risk. This includes the identification of high-risk
individuals as part of a short-term strategy to deal with delinquency in South Africa, and the identification of high-risk areas from which offenders emanate, as part of a long-term strategy. In *tactical terms*, operational units within the SAPS should be guided to specific ‘high-risk’ locations within South African cities potentially leading to the arrest of wanted suspects and suspicious persons. In *operational terms*, operational actions undertaken by the SAPS can be better informed. For example, the routes for vehicle and foot patrols could be delineated to high risk areas; the locations of roadblocks, and cordon-and-search and stop-and-search operations could also be targeted not necessarily take place where the ‘most crimes occur’ or where the ‘most offenders live’ but where the *risk* of crime occurring or offenders residing is high.

From an overall policy perspective the crime situation in South African cities is curable. For example, this study revealed that 87% of offenders located within correctional centres within Tshwane emanate from suburbs in apartheid’s black/non-white townships within the city and that 70 suburbs (18.9% of the suburbs of Tshwane) account for 82.5% of the offenders within Tshwane. This implies that aggressive, direct and sustained strategic, tactical and operational policy initiatives aimed at these 70 suburbs will theoretically reduce the amount of offenders within the municipality by almost 90%. The strongly skewed spatial pattern of delinquency in Tshwane should therefore be used as an advantage in the fight against crime in the city.
Noticeable shortcomings
From a criminological perspective the biggest noticeable shortcoming of the study relates to the so-called ‘dark number’ of offenders. This refers to those offenders residing within the Tshwane municipality upon their apprehension but who are currently incarcerated in correctional centres located outside the Tshwane municipality. Although this does place some limitations on the research, the author, in consultation with various representatives from the DCS, was reliably informed that the vast majority of incarcerated offenders (≈95%) who were residing in Tshwane upon their arrest and apprehension are imprisoned within Tshwane as well. This is partly due to the desire of offenders to be incarcerated close to friends and family. In order to determine the exact ‘dark area’ in this context would require direct access to the MIS’ of all correctional facilities in the country, and the author’s research agreement with the DCS prohibited access to this information.

Summation
The current study attempted to go beyond prior research, and contribute towards an urban ecological theory of crime in South Africa. In doing so, the study illustrated the importance of historical circumstance and local community context when theorising offending from an ecological perspective. While the ecological risk factors for offending identified in the study do not differ largely from similar ecological studies conducted internationally, the effects are felt differently on South Africans as a result of the historical circumstances upon which they are played out. When measures of prosperity and wealth are heavily skewed; and to the detriment of certain geographical areas which have historically been neglected and prone to crime the result is criminality. For proof of this one need look no further than the current levels of
violent crime in South Africa where, according to crime statistics released by the South African Police Services (SAPS), roughly 70 000 people have been murdered during the course of this study. The thesis provided a multidisciplinary treatment of offenders and space in the city of Tshwane, South Africa. But it is only a starting point. A geo-informatics starting point. The onus for the successful reduction of crime in South Africa lies at the hands of other interested parties involved in crime in South Africa. These include criminologists, sociologists among others, to work together to utilise the geographic solution presented here in a way that can seek to inform policy-makers in local or provincial government to effect change.

The dynamics of crime and the urban environment are in a state of flux and are constantly changing. Almost every single person in South Africa has been in some way affected by crime, yet ecological case studies that provide empirical evidence are lacking in the literature. Future research must continue to work across disciplines and employ novel geo-analytic methodologies that seek to inform in an integrated and spatial manner future policy and prescriptions to reduce this scourge that afflicts this unique country.