Community, Space and Perception of Insecurity: The Case of One Urban Community Garden Project in Lima, Peru

by

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Abstract

Insecurity is perceived to be the number one problem in Lima, Peru. In this study I examine the case of one community garden project that has been claimed to have had a positive impact on security in the marginalized neighbourhood of VMT in Lima. I used an ethnographic approach and an analytical framework based on two established theories of crime prevention to identify possible elements of the garden project that may be impacting perceptions of insecurity among members of the community. The findings of this study do not support the claims regarding the positive impact of community gardens on security. I found that the elements of crime prevention which were present had a very limited effect on reducing fear of crime in the study area. However, my findings point out at areas for future study.

Keywords: fear of crime; collective efficacy; cpted; perceptions of insecurity; Lima; crime prevention

Dedication

For my dear sister Fabi, who taught me how to be brave. I will always miss you.

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Thank you to the community members of VMT who selflessly opened their homes and shared their stories with me. This project would have not been possible without their kindness. Thank you Elena, whose company and support while first exploring the streets of VMT was critical for the completion of my data collection. I would also like to thank Karen Ferguson, my senior supervisor, for pushing me to improve and to always ask why. I am a better writer and a more critical thinker thanks to you. Thank you to Amy, Brad and Am for your editing help, this paper is much more enjoyable to read thanks to the three of you. I would also like to thank Jenny, Kieryn and Sophie who watched over my son Marcelo while I was working on the final stages of writing. I would not have been able to complete this thesis without your help. Thanks to my parents and family for their encouragement and for believing in me. Thank you Marcelo for your existence; your love was the best reward after long sessions of writing. Above all I want to thank my loving husband Brad, who was by my side during the whole process.

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List of Acronyms

CPTED   Crime Prevention through Environmental Design

VMT   Villa Maria del Triunfo

Chapter 1.

Introduction

1.1. General Issue: Crime and Perception of Insecurity in Lima

In 2009, insecurity was considered to be the second most serious problem after poverty for the people of the city of Lima, Peru (Rottenbacher, Amaya, Genna, & Pulache, 2009). Recently, public perception of insecurity in Lima has escalated, making it the number oneperceived problem (Lima Como Vamos, 2011). Public opinion surveys report that more than 80% of the population of Lima fear crime in public space (Lima Como Vamos, 2011).

Security concerns vary according to socio-economic status. In low income areas, gang-related issues are the greatest security problem (Grupo de Opinion Publica de la Universidad de Lima, 2009). These neighbourhoods are distinct from the rest of the city, but share common characteristics. They began as informal settlements, and although there has been some improvement in their development, housing conditions are still generally substandard and unsafe (Peters & Skop, 2007). Over 40% of Lima's population live in these marginal neighbourhoods (Peters & Skop, 2007). The conditions of poverty and lack of infrastructure in informal urban neighbourhoods, like the ones described above, are associated with increased anti-social behaviour and crime (UNHabitat, 2012). Crime in marginal neighbourhoods affects a large portion of Limeños and this situation is paralleled in many other developing countries.

The effect of crime in marginal neighbourhoods extends beyond property damage and physical violence. Another major consequence of crime is the fear of crime or perception of insecurity that it induces. Fear of crime affects the way people live their lives

and experience the city, and causes exclusion from public and social life (Pain, 2007). The threatening presence of gangs and crime impacts the broader population's behaviour and limits their use of public space. For example, residents might avoid walking through certain areas or leaving their homes at night.

Despite the fact that insecurity is a serious problem with important consequences for the well-being of the population, the government has not effectively addressed the issue. In the past, the authorities' attempts to combat violence have been, for the most part, reactionary, isolated measures with a punitive rather than preventive focus (Instituto de Defensa Legal, 2011). An example of these types of measures is the Pernicious Gang Activity Decree Law Nr. 899; this decree modified the Children's code, requiring imprisonment for youth (aged 12 to 18) involved in gang activity (Presidencia de la Republica del Peru, 1999). The increase in the perception of insecurity, according to Basombrio (2007), has been in part due to the inefficiency of government response to insecurity. Before 2013, the government did not have sustained public policy for crime prevention and fighting urban insecurity (Instituto de Defensa Legal, 2011). Furthermore, policies are not differentiated according to the unique ways that marginalized neighbourhoods experience insecurity.

Crime prevention strategies are a different, and arguably more effective, way of dealing with crime that depart from the Peruvian government's current approach. Crime prevention strategies address not only crime, but its harmful effect of fear of crime or perception of insecurity. At a neighbourhood level, strategies within the macro-level categorization of crime prevention are particularly relevant. These strategies focus on the relationship between crime and certain characteristics of a determined geographic area rather than individual causes of crime, like poverty, addiction or domestic violence (Prutt & Cullen, 2005).

1.2. The Present Study

Using a theoretical framework based on crime prevention, this ethnographic study examines perceptions of insecurity around one urban community garden project in the marginal neighbourhood of Villa Maria del Triunfo (VMT) in Lima. I first learned about this

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urban community garden project through a documentary film about Urban Agriculture (UA) in Lima. At a distance, the garden resembled a beautiful oasis in a sea of concrete and brick houses. The urban community garden project in VMT transformed a vacant lot into a community garden as part of a community development strategy aimed to fight poverty and food insecurity in the area. In the film, a remarkable comment by a farmer about security caught my attention. According to the farmer, the garden had removed gang fighting from the area, and this sentiment was echoed by other gardeners during a visit to the garden prior to my data collection. This is significant in a neighbourhood with high levels of perceptions of insecurity and crime, and considering that improving perceptions of insecurity was not the intention of this garden project.

These statements not only have local importance of, but also align with claims about security and community gardens in other contexts, the sources of which are mainly non-academic literature (e.g. Cohen, Reynolds, & Sanghvi, 2012; Hodgson, Campbell, & Bailkey, 2011; Mougeot, 2005). Moreover, these claims about community gardens and security conform to certain assumptions in community crime prevention, such as beautification of areas in decay and community strengthening that can influence perceptions of security in the surrounding area. This concurrency in claims about community gardens and security and crime prevention assumptions inspired me to examine whether there might be elements of this urban community garden project that might impact the community's perception of insecurity. This research topic has important applications since insecurity is a major concern in Lima, especially those living in neighbourhoods like VMT. To examine the extent of this topic, I developed the following research question: What is the relationship between the urban community garden project in VMT and the perceptions of insecurity in this marginal neighbourhood of Lima?

This study aims to identify possible elements of the garden project that may be impacting perception of insecurity among members of the community and also identify opportunities for improving the design of similar projects so as to strengthen the ability to reduce the perceptions of insecurity. To examine the perceptions of insecurity around this garden, this study applied two dominant crime prevention theories: one that focuses on strengthened social ties and communal defense (collective efficacy) and a second that focuses on physical modification of the space (crime prevention through environmental

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design). Data was collected using qualitative semi-structured interviews with community members in VMT. It is my hope that the lessons learned from this study can inform authorities and policy makers about crime prevention opportunities in marginal neighbourhoods in Lima.

Chapter 2.

Background

2.1. District

The urban community garden project that is the focus of this research is located in a southern district of Lima called Villa Maria del Triunfo (VMT) (Figure 1-1). This area originated as an informal settlement in the 1950s, however it was not until the 1960s that it legally became a district (MVMT, 2013). The formation of VMT was part of a larger phenomenon of urbanization that happened in Lima due to an intense rural-urban migration from the 1950s to 1970s (Peters & Skop, 2007). The rural migrants who settled in urban Lima illegally occupied the land, and in the decades after the illegal occupation, the squatters built their houses through self-help efforts (Peters & Skop, 2007). Over that period of time, most of the population of VMT also acquired basic services and legal ownership status of the land as a result of the government's physical and legal improvement/regularization policy (Fernández-Maldonado & Bredenoord, 2010).

Currently, more than 300,000 people live in VMT (MVMT, 2013) and although VMT has developed somewhat, it still faces great problems. One of those issues is poverty; approximately 27% of its population still lives in poverty, compared to 18% in Metropolitan Lima (Ministerio de Trabajo y Promocion del Empleo, 2009). Approximately 2% of the VMT population lives in extreme poverty, whereas that figure is only 0.5% in Metropolitan Lima (Ministerio de Trabajo y Promocion del Empleo, 2009). Another major problem in the district is crime and violence. In VMT almost 80% of the population considers their district to be unsafe (Costa & Romero, 2012).

Unlike data about poverty, most data regarding crime in Lima does not differentiate between districts. However, data about crime is differentiated according to socio-economic groups. The population of VMT is represented by poor and extremely poor socio-economic groups. The data indicates that the most prevalent issue regarding insecurity in low income areas is gang activity. More specifically, 45% of Lima's poor and extremely poor population consider gang activity their main security concern, compared to 20% for the

wealthy segment of the population living in areas apart from districts like VMT (Grupo de Opinion Publica de la Universidad de Lima, 2009). This difference may be in part because of the presence of gang activity in the low income neighbourhoods. In areas of poverty and extreme poverty, more than 70% of the population affirm the presence of gangs in their neighbourhoods, compared to 11% for the wealthy areas (Grupo de Opinion Publica de la Universidad de Lima, 2009).

2.2. The Community Garden Project in VMT

An urban agriculture program led to the implementation of the VMT garden project in 2005, along with other urban community gardens in similar neighbourhoods (RUAF, 2013). UA practices in the developed world focus on sustainable development, education and safe food provision, therapy and recreation, open space management and community development (Mougeot, 2006); in contrast, urban agriculture in developing countries has been used since the 1990s as way of generating income and promoting food security due to the increasing levels of urban poverty (Mougeot, 2005). This particular UA program is no exception; it was started as a way to boost economic development and food security. Initiated by the Food and Agriculture Organization of the United Nations, two international non-governmental organizations (IPES and RUAF), and the municipality of VMT (RUAF, 2013), the initial stage of this UA program was an apparently "participatory" process in which some of the current female farmers took part (RUAF, 2013). In this process, different spaces in the district were identified as potential garden sites. One such site was a large vacant space located under a corridor of high-voltage electrical towers, owned by the energy company, and used as a dump by the community members (Dubbeling & Merzthal, 2010). This site was chosen for the garden project and is the focus of this study.

Following the initial investigations described above, the VMT project was established under the Cities Farming for the Future program run by the Netherlands based RUAF Foundation (Resource Centres on Urban Agriculture and Food Security), and funded by the Dutch Ministry of Foreign Affairs and IDRC Canada (RUAF Foundation, 2008). IPES (Promoción del Desarrollo Sostenible) was engaged for the implementation of the project as the regional partner for South America (RUAF Foundation, 2008).

The community garden project consists of four individual community gardens: Saccsayhuman, Machu Picchu, Paracas, and Cavani (Figure 2.1). It is used by more than 20 farmers and their families. Each of these gardens is farmed by multiple farmers; however, each farmer has a designated space to grow their produce. Even though at the beginning of the project participants were entirely women, now 20% of the farmers are male. Additionally, most of the farmers are seniors (for this study I consider seniors to be people over the age of 60) and very poor, since participants had to express significant need in order to be part of this garden. People who participate in this garden rely on food they produce for their own consumption and also on the extra income they receive from selling their produce. According to the interviewees and the NGO representative, the funding NGOs have had an ongoing role in the development of the project, including technical assistance, monitoring progress, and choosing farmers.

Figure 2.1: View of gardens location

All of the four community gardens within VMT share some qualities. They are surrounded by a one metre hedge with one or multiple entrances (figures 2.2 to 2.5 show the hedge and one of the doors). The entrances typically have doors but no locks. Inside each garden, most of the space is used for the production of fruits and vegetables and, as mentioned above, each farmer or family has their own space to farm. Only the two biggest gardens, Saccsayhuaman and Machu Picchu, have some communal facilities, such as an outdoor classroom, a protected plant nursery, and a rustic outdoor kitchen.

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Figure 2.2: Hedge view from inside the Machu Picchu garden 1

Figure 2.3: Hedge view from inside Machu Picchu garden 2

Figure 2.4: Hedge view from inside the Machu Picchu garden 3

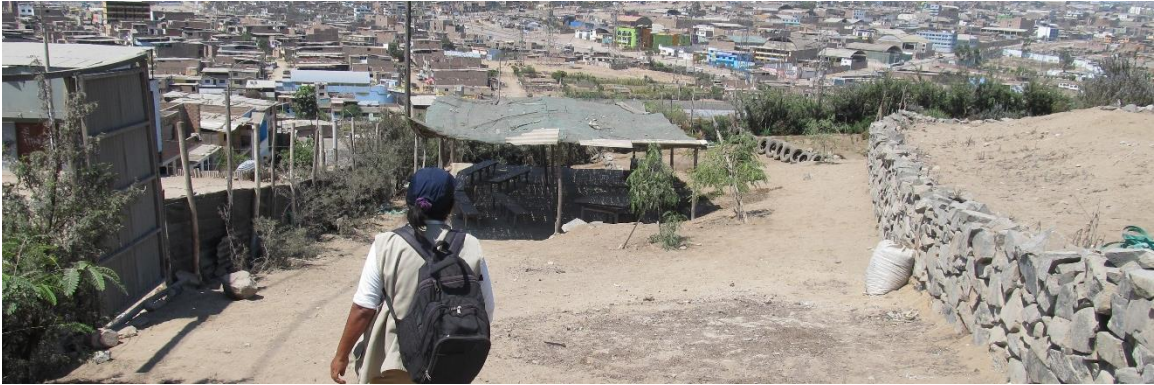**Figure 2.5: Front door of Machu Picchu garden**

Figure 2.6: Communal spaces in Machu Picchu garden

Chapter 3.

Literature Review

With this study I aim to determine the key factors that have influenced fear of crime in my study area and which of these factors might be related to the establishment of the garden. The intention of this study is also to identify opportunities for improving the design of similar projects so as to strengthen the ability to reduce the perceptions of insecurity. I examine perceptions of insecurity using a qualitative ethnographic approach because, as explained by Pain (2000), this type of research is ideal for exploring nuances in experiences and the various meanings of fear of crime within communities.

For my literature review I examine first the concept of fear of crime and its consequence of social exclusion. Following this I review literature on crime prevention, specifically focusing on two theories: collective efficacy and crime prevention through environmental design. I finish my review by examining literature on the relationship between the selected two crime prevention theories and community gardens.

It is worth noting that for this review I have primarily used literature from the global north. There are two main reasons for this: First because certain crime prevention strategies developed in the global north have influenced the way governments in Latin America are starting to address crime issues; second is the lack of research both on fear of crime and crime prevention coming from the developing world, more specifically from Latin America and Peru.

3.1. Fear of Crime

In the first part of this review I look at the general concept of fear of crime. I begin this section with a review of the dimensions and definitions of fear of crime and establish the definition I will use in this study. This definition will serve as a basis to measure fear of crime and interpret my findings. I then examine fear of crime as a social problem and its implications in social exclusion. I do this to understand the consequences of fear of crime

in people's lives and to establish the importance of the topic and its relevance to my case study. Following that, I explore the shortcomings in the way fear of crime is often studied in order to highlight the importance of an ethnographic approach in the study of fear of crime. I also explore two theories that focus on fear of crime at a neighbourhood level: the social integration theory and the disorder theory. The review of these theories is central to this study, because the crime prevention theories used for the analysis of the data stem from these theories. Finally, I examine how the concept of fear of crime has been studied in Lima.

Fear of crime has been studied at least since the 1970's; however, authors have not agreed on one single accepted definition. In an early definition, Garofalo defines fear of crime as an "emotional reaction characterized by a sense of danger and anxiety produced by the threat of physical harm…elicited by perceived cues in the environment that relate to some aspect of crime in the person" (Garofalo, 1971). Similarly, Ferraro and LaGrange defined it as "an emotional response to dread and anxiety to crime or symbols that a person associates with crime" (Ferraro & LaGrange, 1975). These definitions are both centred on the affective dimension of fear of crime, in other words, how crime makes people feel. More recently Sacco (2005) stated that there were two other dimensions of fear of crime: cognitive and behavioural. For Sacco (2005) the cognitive dimension is the respondent's beliefs about crime and the behavioural dimension is the practical responses to crime and disorder(Sacco, 2005). The recognition of the cognitive and behavioural dimensions is an important addition to the concept of fear of crime. The behavioural dimension is especially relevant since it is a tangible dimension of fear of crime and this facilitates the study of the phenomenon.

The fear of crime concept can also encompass other important elements that have not been fully considered by other authors. Pain (2000) describes fear of crime as "a wide range of emotional and practical responses to crime and disorder individuals and communities may make". Pain (200) also states that this phenomenon is 'transitory and situational', meaning that fear of crime is not a permanent state and it is influenced by spatial elements such as the local context. Pain's definition considers both the affective and the behavioural dimensions of fear of crime: however there is no explicit recognition of the cognitive dimension as described by Sacco (2005). For this study, I incorporate the

cognitive dimension of fear of crime with Pain's definition. Perceptions of insecurity or fear of crime thus refers to cognitive, affective and behavioural responses to crime and disorder by individuals or communities. Perceptions are tied to the local context and vary according to changing life situations.

Even though there is no universal definition for the concept of fear of crime, a general conclusion from the literature is that fear of crime is a greater problem than crime itself because of it's the negative impacts on people's sense of wellbeing (Hale, 1996). Authors have shown that the effect of fear of crime is social exclusion, which is defined as individuals not participating "in 'key' activities of the society in which he or she lives" (Burchardt, Le Grand, & Piachaud, 2002). This means that those affected by the fear of crime phenomenon are prevented from participating in key aspects of a normal life. For Young (1990), certain spaces may become particularly threatening for people who feel at risk, and this results in isolation and restriction and segregation from life in the city. When people experience fear of crime they modify their behaviour to feel safe. For example they might avoid dangerous places at dangerous times (Valentine, 1989). People affected by fear of crime are going to have their options in life limited. Fear of crime is a valuable area for academic and policy attention because it represents a tangible social problem and can extend beyond the population of victims of a crime to impact on more general aspects of public well-being (Pain 2000; Smith 1987).

Although fear of crime has been studied for more than three decades, the approach to studying this phenomenon has remained almost unchanged. Fear of crime has been studied mainly using quantitative methods, more specifically through large scale surveys. Some researchers find this approach inadequate. Gray et al (2008) argue that surveys do not reflect people's daily emotions and that this methodology conceals important notions rather than increasing knowledge of the topic. As an alternative, Pain (2000) proposed qualitative research to study fear of crime in a more comprehensive way. Pain (2000) explains that by using qualitative research, the nuances in experiences and the various meanings of fear of crime can be better explored. Pain also argues that one of the benefits of qualitative research to study fear of crime is that it facilitates the exploration of fear of crime as "multifaceted and dynamic, an emotion which is situated on the local details of individuals' circumstances (Hollway & Jefferson, 1997) and life courses,

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and is sensitive to spatial, temporal and social context (Rachel Pain, 1997)" (Pain, 2000, p.369). Pain (2000) introduced a research approach that she calls "local ethnography of fear" for qualitative research that studies fear of crime at a neighbourhood-level. This approach brings together ideas of social identity and social exclusion with the uniqueness of particular places. A fundamental factor for these "local ethnographies of fear" is what Pain (2000) calls 'situatedness'; this concepts refers to "the ways in which place as a site of historically and contemporary economic changes interplay with social identities and relations, and has an influence upon the fear of crime of people living locally".

3.1.1.   Fear of Crime and Neighbourhood

Although most theories about fear of crime have focused on the individual causes of crime, local context, as stated by Pain (2000), plays an essential role on how people experience perceptions of insecurity. Two of the most prominent theories that have been developed to explain fear of crime at a neighbourhood level are: the disorder theory and the social integration theory. These two theories are related to the crime prevention strategies (see section 3.2) that this study uses as a framework. In the following paragraphs I explore each of these theories.

In social integration theory the presence of strong ties among neighbours is believed to produce informal social control which disrupts criminal activity (Bellair, 2000). As a consequence this informal social control increases perceptions of safety in the neighbourhood (Gibson, Zhao, Lovrich, & Gaffney, 2006). This theory was inspired by Jane Jacobs's famous "Death and Life of the Great American Cities", Oscar Newman's theory of defensible spaces, and the Chicago School's social disorganization theory. Many studies have provided empirical evidence of a link between social cohesion a decrease in fear of crime (Rountree and Land, 1996; Lewis and Salem, 1986; Hunter and Baumer, 1982); however, other studies have shown conflicting results. For example, Austin, Woolever and Baba (1994) found that having a strong network of friends in the neighbourhood was not a predictor of fear of crime. Similarly Riger, LeBailly and Gordon (1981) found that for women, social cohesion among neighbours did not influence their perception of insecurity, although the same study revealed that neighbourhood social bonds reduced fear of crime.

Bursik and Grasmick (1993) claim that the reason why the evidence between the link of social cohesion and fear of crime is not conclusive is because there is not a consistent measure for social integration. The indicators that make up the measure for social integration in fear of crime studies vary from friendship to feelings of neighbourhood belonging. For example Austin et al (1994) use the number of friends in the neighbourhood as an indicator for social ties, Riger et al (1981) uses an indicator that combines measures of friendship and social activities in the neighbourhood, and Gibson et al (2006) use a three item indicator combining neighbourhood attachment with how well the respondents know their neighbours.

For Gibson (2006), social cohesion might be conducive to decreasing fear of crime when it is mediated by collective efficacy. In other words, trust and tight social relationships among neighbours combined with informal social control may lessen the perceptions of insecurity at a neighbourhood level (Gibson et al., 2006). Although the collective efficacy theory has been well researched in relation to crime (see section 3.2.1 for a review of collective efficacy), Gibson's study on social integration, collective efficacy and fear of crime is the only known study that tested these three concepts.

The disorder theory argues that deterioration and disorder problems in a neighbourhood, usually experienced by observable evidence, are determinants of fear and some fear-related behaviours (Skogan, 1986). According to Skogan (1986) some of these visual signs include junk and trash in vacant lots, boarded up buildings, stripped and abandoned cars, bands of teenagers congregating on street corners, street prostitution, panhandling, public drinking, verbal harassment towards women, open gambling, and drug use. LaGrange et al. (1992) classified these signs of fear in two categories: disorderly physical surroundings (e.g. unkempt lots, litter, trash, graffiti, and abandoned houses) and disruptive social behaviours (e.g. rowdy youth, beggars, drinking). Skogan named these signs "disorder"; although others have used different terms to describe similar connections between these visual sings and fear. For example, Skogan and Maxfield (1981) referred to them as "signs of crime", Wilson and Kelling (1985) as "broken windows", Warr (1990) as "cues to danger", and Hunter (1978) as "incivilities" (LaGrange et al., 1992). Multiple studies that look at the relationship between "disorder" and fear of crime have found that these signs are in fact a predictor of increased levels of fear (for example Lewis & Salem, 1986 and Skogan & Maxfield, 1981).

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3.1.2.   Fear of Crime in Lima, Peru

The concept of fear of crime in Peru is generally known as perception of insecurity (percepción de inseguridad) and it is measured through citywide public opinion or victimization surveys (e.g. Costa & Romero, 2012; Grupo de Opinion Publica de la Universidad de Lima, 2009; Lima Como Vamos, 2011). However, despite the fact that the high perception of insecurity is one of Lima's most pressing problems, there are very few studies that have examined fear of crime in Lima. Here I draw primarily from Cabrera and Villaseca (2007) to compare study results from Lima with North American and European theories. This study used an ethnographic approach to look at women's perception of insecurity in public spaces (eleven public plazas and parks) in two low income neighbourhoods (Villa Maria del Triunfo and Villa el Salvador). Although, this study was focused only on women, it is relevant because it examines a population's fear of crime in the same district where this study takes place. In addition to allowing me to compare results with studies conducted elsewhere, it provided a deeper understanding of fear of crime on the specific setting of VMT.

Coinciding with North American and European theories of fear of crime and disorder, Cabrera and Villaseca (2007) found that women's fear of crime was related to elements such as garbage, poor lighting, lack of urban equipment, and the presence of unknown people especially men and groups of men. The presence of strangers was especially found to be associated with violence and crime (Cabrera & Villaseca, 2007). In response to the threat of unfamiliar persons in the neighbourhood, Cabrera and Villaseca (2007) found that neighbours built physical barriers (such as gates and fences) to block entrances to public space. Other 'solutions' to the threat of unknown people found by Cabrera and Villaseca (2007) were to damage public infrastructure so it could not be used (e.g. putting oil on benches or removing parts of the bench).

3.2. Crime Prevention

In this section I first briefly review the concept of crime prevention, and then I explore the two crime prevention concepts of collective efficacy and crime prevention

through environmental design. These selected theories and guiding principles will serve as a base for the analysis of my study.

A basic definition for the term 'crime prevention' is: an effort to stop antisocial behaviour or crime before it happens, addressing the crime problems at their source, as opposed to waiting until the offenders are in the criminal justice system (White, 1999). More recently this concept has been extended to focus not only on strategies to stop crime but also on strategies to decrease the effects of crime on society such as fear of crime and diminished quality of community life (Idriss, Jendly, Karn, & Mulone, 2010; UNODC, 2002).

This review focuses on two crime prevention approaches within a macro-level categorization of crime prevention. Macro-level theories, rather than focusing on individual causes of crime, are used to explore the relationship between crime and certain characteristics, such as social and environmental features, in a determined geographical area (Pratt & Cullen, 2005). Therefore this type of theories is particularly well suited for studies that examine perceptions of insecurity at a neighbourhood level.

The two macro-level theories applied in my study are collective efficacy and crime prevention through environmental design. There are two reasons why I have selected these two crime prevention theories for my analysis. First, these two theories align with claims made by community garden advocates in non-academic literature (described above) regarding the influence of community gardens on security. For this reason these two crime prevention theories can be used to test those claims. Second, these two theories stem from the most prominent theories that try to explain fear of crime at a neighbourhood level (the social integration theory and the disorder theory).Therefore collective efficacy and crime prevention through environmental design have a solid academic foundation which supports their application in the present study. There are numerous other theories related to security and crime prevention; however, these other theories do not relate to the initial evidence about the gardens and do not have similar academic support. In the following sections I will review the collective efficacy and environmental modification approaches.

3.2.1. Collective Efficacy

The collective efficacy theory is based on Clifford Shaw and Henry McKay's social disorganization theory. This theory claims that urban communities are more affected by crime when social institutions are disrupted by conditions such as poverty (Cullen & Agnew, 2011). In a revision of the social disorganization theory Sampson (1986) claimed that crime was high in socially disorganized communities because the social control capacity of the residents had been lost (Cullen & Agnew, 2011).

The concept of collective efficacy was introduced by Sampson, Raundenbush and Earls (1997). These authors defined collective efficacy as "social cohesion among neighbors combined with their willingness to intervene on behalf of the common good"(Sampson et al., 1997). In other words collective efficacy is the linking of social cohesion with informal social control (Sampson, 2006). For Sampson (2006) social cohesion and support are essential in the creation of social control and control is a key mechanism in the collective efficacy theory.   Sampson et al (1997) introduce the collective efficacy concept in a multi-level quantitative study of 343 neighbourhoods in Chicago. They tested collective efficacy by using five indicators in a Likert-type scale and found that was linked to reduced violence at a neighbourhood level (Sampson et al., 1997). Subsequent studies have added more robust empirical evidence linking collective efficacy with lower crime levels. In a review of more than 200 empirical studies, Pratt and Cullen (2005) classified collective efficacy as one of the strongest theories among macro-level criminological theories.

Although there is strong evidence about the relation between collective efficacy and crime, questions remain about the origins of collective efficacy (Sampson, 2006). For Morenoff, Sampson and Raundenbush (2001) future research (both qualitative and ethnographic) should look into the circumstances "under which strong social ties foster trust and social control".

3.2.2. Crime Prevention through Environmental Design

The Crime Prevention through Environmental Design (CPTED) theory focuses on reducing crime and fear in communities by modifying their physical features. CPTED has

been greatly influenced by Oscar Newman's (1972) theory of defensible space as well as Jane Jacobs idea of 'eyes on the street' (Jacobs, 1961). The CPTED theory was introduced (by C Ray Jeffrey) in the 1970s but was not well received by criminologists because it focused only on physical rather than social factors (Cozens, Saville, & Hillier, 2005). Social factors have since been included in CPTED studies and the theory has gained wider acceptance (Cozens et al., 2005).

The main ideas of CPTED were classified by Moffatt (1983) into six guiding principles: (1) surveillance, (2) territoriality, (3) access control, (4) activity support, (5) image/maintenance and (6) target hardening. A brief survey of each term follows:

The surveillance concept is based on the idea that offenders may be less likely to commit a crime if they perceive that they can be seen (Cozens et al., 2005). Design can promote different types of surveillance such as natural (e.g. residents' self-surveillance facilitated by windows, urban design that promotes visibility) organised (e.g. police patrols) and mechanical surveillance strategies (e.g. street lighting) (Cozens et al., 2005).

The territoriality principle tries to reduce the crime opportunities by discouraging illegitimate users of the space by reinforcing a sense of ownership in legitimate users of space (Cozens et al., 2005). All spaces have to be defined as public, semi-private or private spaces and have to have a designated purpose. Physical elements such as fences, pavement treatments, signs, landscaping and artwork can be used to delimit those spaces (Cozens et al., 2005).

The access control idea is focused on denying access and creating the perception of risk to potential offenders (Cozens et al., 2005). Elements of access control can be natural (e.g. spatial definition), organised (e.g. security personnel) and mechanical (e.g. locks and bolts).

The activity support concept tries to encourage certain patterns of usage of public space through the implementation of design and signage (Cozens et al., 2005).

The image/management principle is based on the idea that a positive image and a well maintained built environment prevents fear of crime and crime itself (Skogan, 1986).

Target hardening refers to limiting or denying access to offenders with the use of barriers such as gates, fences, locks, electronic alarms and security patrols. Target hardening is the most controversial of the CPTED principles, and there is considerable opposition to this concept being a component of CPTED (Cozens et al., 2005). This is because when target hardening is used excessively residents can develop a 'fortress mentality' through using physical barriers. Thus the social control of the space prescribed by CPTED is lost (Cozens et al., 2005).

Fennelly and Crowe (2013) highlight that these principles are interrelated and it would be impractical to use each as a separate strategy. Nonetheless, the separate classifications are valuable in facilitating analysis. For this study I group Moffat's 6 guiding principles into those related to surveillance and those related to physical modification of the space. Further, I only examine aspects related to urban design, although CPTED can be applied to both urban design and building design.

3.3. Community Gardens and Crime Prevention

In this section I review the few studies that have looked at the link between community gardens and crime prevention. I begin by reviewing studies related to collective efficacy. Following this, I review those related to CPTED.

3.3.1. Community Gardens and Collective Efficacy

As mentioned in section 3.2.1, the concept of collective efficacy consists of social cohesion and social informal control. Social cohesion is also claimed to be a product of community gardens. Because there is limited research specific to gardens and collective efficacy, in this review I also include the small number of studies that look at the link between gardens and social cohesion on its own (i.e. not as an explicit part of collective efficacy). I start by reviewing studies that look at the concept of community unity in relation to community gardens. I then turn to the limited literature that has focused on collective efficacy and community gardens.

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Three academic studies have examined community gardens and their relationship to social cohesion(Armstrong, 2000; Firth et al., 2011; Kingsley & Townsend, 2006). Firth et al. (2011) and Kingsley & Townsend (2006) used small qualitative studies to focus specifically on community relations and aspects of social cohesion. By contrast, Armstrong (2000) explored 20 gardens projects in New York city through a survey of garden managers, focusing on a wider range of aspects of community gardens beyond social relations. Because Armstrong (2000) does not examine social cohesion in depth, in this review I will only focus on Firth et al. (2011) and Kingsley & Townsend (2006)'s studies.

In their studies Firth et al. (2011) and Kingsley & Townsend (2006) found that social unity was formed through sharing social activities. These activities included cooking, sharing meals, growing food together and having work parties (Firth et al., 2011; Kingsley & Townsend, 2006). However, despite the fact that Kingsley & Townsend (2006) found that working parties helped in the creation of social cohesion, working parties did not result in the enhancement of social relations in every case. The authors found that an important element for the creation of networks regarding this activity was who facilitated the working parties (Kingsley & Townsend, 2006).

Although Firth et al. (2011) and Kingsley & Townsend (2006) found social cohesion in relation to the community gardens they studied, they had important findings regarding the type of community formed through the gardens. Kingsley & Townsend (2006) found that the relationships formed in the community gardens were exclusive to this setting; gardeners did not spend any time together outside of their garden. Firth et al. (2011) found that the type of communities generated in the gardens they studied depended on various factors including "the aim of the garden, it's governance structure and its link to the local community". The governance structure influenced the type of community formed around the gardens when, for example, gardens were created by outside organizations or when they originated from within the community. In the first case, those gardens tended to attract farmers based on interest. In the second case the community attracted by this garden was the local community. In both cases, the qualitative methods used enabled the researchers to gather more detailed information about the generation of social ties and the types of community formed around the garden. These findings are significant points to consider in

my analysis because the types of communities formed could have important repercussions on the formation or not of social informal control and collective efficacy.

Finally, both Firth et al. (2011) and Kingsley & Townsend (2006) found that the space and spatial features of the garden might be a catalyst for social integration. For Firth et al. (2011) social unity was promoted in the garden because the garden acted as a "third space" (after home and work) where people could meet, interact and therefore form relationships. In that respect, Kingsley & Townsend (2006) argue that the design of the garden was an important element that could promote interaction between farmers and community members.

With respect to collective efficacy, I have found only two studies that examine the relationship between this concept and community gardens. The first study, Glover (2003), is not a test of collective efficacy itself; instead it focuses on the narrative behind the creation of a garden by a grassroots organization with the aim of revitalizing a community and preventing crime and incivilities through community action. In this study Glover (2003) argued that participants achieved collective efficacy while transforming an abandoned lot that was usually frequented by drug dealers and prostitutes into a community garden. Although this study only focuses on the creation of the garden, the community garden was not the only initiative started by this community to fight urban decline; the neighbours also initiated a neighbourhood watch and neighbourhood patrol (Glover, 2003). Nevertheless, the author argues that the garden is the only tangible symbol of collective efficacy (Glover, 2003). The second study, Teig et al (2009), is a qualitative study of 29 community gardeners in Denver where the authors look at the processes behind social cohesion among the communities as it relates to different social issues including neighbourhood safety.

Both studies found that building of trust among members and the informal control were part of the gardens' success. Glover (2003) argued that the collective action efforts in building the garden created social ties between participants. The author also argues that this link among neighbours separated them from outsiders (who were seen as "others") therefore providing social informal control (Glover, 2003). In the case of Teig et al (2009), the authors argue that the social environment created in the garden engaged

gardeners in issues that were affecting the community as a whole, such as neighbourhood instabilities and crime (Teig et al., 2009). For Tieg et al (2009) mutual trust cultivated feelings of safety (Teig et al., 2009)., Tieg et al (2009) also found a number of conflicts within almost every garden. However, these conflicts were mediated collectively and, according to Teig et al. (2009), this process of conflict resolution also served to strengthen the community. Finally, the authors also noted that although there was a general sense of trust among gardeners, some participants revealed that they did not trust members of the community who were non gardeners (Teig et al., 2009). The strengthening of ties only among gardeners seems to be a frequent finding, as discussed above in Firth et al. (2011) and Kingsley & Townsend (2006). Given that this seems to be an important issue to explore for collective efficacy, my analysis explores how the types of community created could influence collective efficacy.

A significant finding from both studies is that the way in which the community was made safer seems to point to the displacement of crime. In Glover (2003)'s study some participants even mentioned that the success of their initiative was that they displaced unwanted activities. In a similar way, in Teig et al (2009)'s study, several participants mentioned that their garden represented a safe place, even in one instance where vandalism and drug use persisted in the park just across the street. Although these examples show that the crime problem persisted elsewhere, this did not seem to affect participants' improved perception of security. Nonetheless, this finding does raise questions about the effectiveness of collective efficacy as a crime prevention strategy. Also, given the evidence that these type of projects are creating the displacement of crime, I consider this as a possible outcome of the project.

There are a number of limitations in this review. The first is the limited number of studies found that looked at the relationship between gardens and collective efficacy. Another limitation is scale of these studies. Findings from each of these small scale studies are very particular to each case. Finally, none of the studies I have reviewed looked in depth at the process of how collective efficacy was formed in relation to the gardens. Still, there is clear evidence that the relationship between community gardens and elements of collective efficacy is worthy of continued research. Further, the studies I have reviewed

above highlight important questions and factors to consider when conducting studies such as mine.

3.3.2. Community Gardens and CPTED

There are a number of cities, particularly in the United States, that have used gardens as a revitalization strategy for areas in decay (Nettle, 2014). One of those cities is Chicago, where urban agriculture has been used as a strategy to transform vacant land with the aim of visually improving streets and neighbourhoods (Kaufman & Bailkey, 2000). The transformation of previously vacant lots into community gardens is believed to have a positive effect on public safety (Glover, 2003; Hodgson, Campbell, & Bailkey, 2011; Mougeot, 2005; Smit, Nasr, & Ratta, 2001). However, despite the fact that community gardens have been used in the United States to revitalize marginal neighbourhoods, there are not many studies that have looked into the effects of these changes on the neighborhood and perceptions of insecurity. Most of the studies that do exist are focused on vegetation. Although these studies are not specific to CPTED, they do coincide with certain CPTED principles, and in this section I focus on these studies.

Vegetation is an essential part of the physical aspect of a community garden. Vegetation has also been found to both encourage and discourage crime depending on the circumstances. Removing vegetation has been used as a crime prevention strategy (Michael, Hull, & Zahm, 2001). Densely vegetated areas have been associated with fear of crime (Kuo & Sullivan, 2001). Two studies demonstrate how densely vegetated areas are used by offenders to conceal their illegal activities (Michael et al., 2001; Michael & Hull, 1994). However, in the second study Michael et al. also acknowledge that vegetation was neither necessary nor sufficient for a crime to be committed (Michael et al., 2001). However, Kuo (2001) points out that certain forms of vegetation that preserve visibility do not promote crime, such as widely spaced, high-canopy trees. Furthermore, in certain settings, such as poor urban neighbourhoods, this type of vegetation may even discourage crime by increasing surveillance of this spaces and by mitigating residents' mental fatigue, thereby "reducing the potential for violence"(Kuo & Sullivan, 2001).

Besides vegetation, some other possible elements of these gardens that are align with the CPTED theory and may be influencing the increase in perceptions of security include the improvement of the neighbourhood's environment, the increased animation and surveillance of the street, the elimination of hideouts, and the use of security elements such as fences. Although the number and the range of studies covered in this section of the review is very limited, my analysis focuses on those other elements that may be impacting perceptions of insecurity as well as the implications on crime of the use of vegetation in the area.

Chapter 4.

Research Methods

4.1. Study Design and Framework

Inspired by the concurrence of claims between community gardens, security and crime prevention highlighted in the introductory chapter, I selected two crime prevention strategies as a basis for the analytical framework for the study. The first crime prevention strategy is collective efficacy, which focuses on strengthen social ties and communal defense. The second strategy is crime prevention through environmental design, which focuses on physical modification of the space. As explained in section 3.2, I chose those two theories among many other theories of crime prevention because they relate to the initial evidence about the gardens and because they have consistent academic support regarding fear of crime. The theories and notions of these two crime prevention strategies served to guide the data collection as well as to identify possible elements of the garden that may be impacting perceptions of insecurity.

I selected to study Collective efficacy to learn whether if the strengthening of the community and communal defense efforts play a role in enhancing perceptions of security around the garden project. Aspects of this theory I looked in the analysis include the building of trust or the presence of conflict between participants, creating a stronger community and the presence or lack of organized efforts in communal defense.

In the case of crime prevention through environmental design, I decided to use this theory to determine whether if the physical modification of the space play a role in enhancing perceptions of security around the garden project. In the analysis of my data I looked if the spatial modifications of the place were creating a positive image of the built environment or denying access and creating the perception of risk to potential offenders with the use of barriers such as gates. I also looked if the modifications were encouraging a new pattern of usage of public space which promotes different types of surveillance that could be discouraging illegitimate users. In summary, the aspects of this theory I looked for in the analysis include the spatial transformation of the space, informal control, activity

in the space, presence of security elements, feelings of beauty regarding the space. The following sections describe the data collection and the analysis process.

4.2. Data Collection

This qualitative study explores the participants' life stories and daily routines, their perceptions of community and the spatial transformation of the area where the garden project is located in relation to their fear of crime in the rest of the neighbourhood. An ethnographic approach was chosen to allow a fluid conversation with participants in which their ideas, emotions and perceptions of insecurity would emerge. Talking about participants' perceptions of insecurity and violence is a sensitive topic for some, hence it was important to build trust with participants before the interviews. The ethnographic approach (more like a conversation than a structured interview) was also important to make participants feel comfortable enough so the conversation could be guided in a way that permitted talking about those difficult topics. Gathering this sensitive information with a shorter and more structured interview would have been challenging. Because the investment of time for each interview was greater than in other types of studies, the number of respondents is smaller for ethnographic research.

I interviewed thirteen people. The initial research plan was to interview only ten respondents but I added more until the data collected became repetitive. Participants were both male and female and of various ages, although most of the farmers were seniors (defined in this study as people over 60). Also, most of the seniors I interviewed were founding members of the neighbourhood who had migrated from different areas of the Andes to Lima starting approximately in the 1970's. The younger respondents were the children of founders and were born in the city.

I interviewed two groups of people: farmers (people that worked in the gardens) and non-farmers (people that did not participate of the garden project but lived in the neighbourhood). The farmers were: Rosa, Maria, Carmina, Juana, Flor and Yolanda. The non-farmers were: Hilda, Carolina, Jose, Juan, Teresa, Rita and Aida. The intention of interviewing these two groups was to compare their answers given that both groups have been exposed to different experiences. While the non-farmers had experienced change in

the neighbourhood through the garden indirectly, the group of farmers had also experienced a change in their social relations and in their daily routine since the creation of the garden.

Purposive or judgemental sampling strategy was used for this study; this technique is frequently used for ethnographic studies. Purposive sampling is a strategy in which respondents are selected on the basis of the purpose of the study and my knowledge of the population (Babbie & Benaquisto, 2013). In order to acquire knowledge about members of the community before recruiting respondents, I spent three days walking the neighbourhood and talking to neighbours. During this time I gained the trust of some of the members of the community and recruited the first three respondents: non-farmers Carolina and Aida, and farmer Juana. Before starting the interview process, I informed the respondents that all their answers were confidential, that their participation was voluntary, and that they could withdrawal from the study at any moment. In order to participate the respondents signed a participant consent form.

The next seven interviewees were introduced to me by Georgina, the garden coordinator whom I met in 2012 during my initial visit to the garden project. These respondents were farmers Flor, Carmina, Maria and Rosa and non-farmers Teresa, Rita and Juan. After I had met and interviewed five farmers and five non-farmers I felt I still needed more data. To complete the sample size I recruited two non-farmers, Hilda and Jose, and farmer Yolanda. At the end of these last three interviews the data had become repetitive.

The interview process was the same for both farmers and non-farmers. All the interviews were conducted in Spanish. Although many of the participants' first language was Quechua, there was no need for a translator because all the participants were fluent in Spanish. To allow participants to feel more at ease, the interviews took place in private spaces that were familiar to them. Each interview lasted between 1 to 2 hours to allow a fluid conversation. The semi-structured format combined with the length of time, allowed perceptions to emerge that would not in more structured, briefer interviews (Babbie & Benaquisto, 2013). The interviews used open ended questions and the questions were prepared based on literature regarding crime prevention strategies and perceptions of

insecurity. However, the questions were dynamically adjusted according to discoveries from the interviews. I have added a sample of questions in Appendix A.

Each interview started by talking about the participant's history, feelings and sense of community within his or her neighbourhood. These questions were followed by conversation more specific to the garden project. I asked questions about the transformation of the space, feelings towards the space before and after the transformation, the activities that take place in the space now, the sense of community, and friendship created or not created by the garden project. An important part of the study was to ensure that the respondents were talking about their own perspectives; this along with a good sample of respondents assured the validity study.

All the interviews were recorded using a digital audio recorder. In some cases the fact that the interviews were being recorded made the respondents nervous; however after a few minutes of talking the respondents became more trusting and comfortable. Notes were also taken, especially when certain facts that had not been previously known or considered arose during the interviews. These notes helped formulate probing questions about those topics. By the end of the interview process a group of farmers invited me to join them for a Friday get together in the Saccsayhuaman garden. This experience enriched my research because I was able to observe their social interactions in a different setting. Although I did not give any monetary incentives, as a way of thanking them for their time, I invited them to a small gathering in the Machu Picchu garden where we all shared food and drinks.

4.3. Analysis Methodology

After the data collection process was over, the transcription process started. I transcribed all thirteen interviews using the NVivo software. Transcription was a challenging and very time consuming process. Although the interviews were in Spanish, transcribing the interviews posed a challenge since some of the participants' accents were difficult to understand. I listened to the recordings a few times before I transcribed them. To save time, the transcriptions where not translated to English before the analysis.

Instead, the analysis was conducted using the Spanish transcriptions and only the quotes needed to present the findings were translated.

The analysis of the data was done using Grounded Theory, which is described by Babbie and Benaquisto (2013) as an examination of data through the constant comparing of unfolding observations by which theory is generated. The two crime prevention strategies of collective efficacy and environmental modification that were used as the base for the analytical framework permitted me to find themes and concepts under those categories. However, grounded theory also allowed other themes or concepts to arise. The data was processed through coding and memoing also using the NVivo software. Coding refers to applying labels to data that illustrate ideas and concepts and to the continuing process of identifying, modifying and refining concepts and categories that sustain emerging themes and patterns (Babbie & Benaquisto, 2013). Memoing refers to writing ideas, patterns, and themes developed during the process of reading and coding (Babbie & Benaquisto, 2013).

The analysis started by doing open coding. Open coding is done by reading the data line by line with the intention of identifying, labeling and classifying all ideas, concepts, and themes without any concern about how they will be used or how they are related (Babbie & Benaquisto, 2013). Simultaneously the NVivo software was used to listen to the audio to hear for intonation. Listening to the participants' intonation helped in recognizing participants' feelings, especially fear. Open coding was useful not to only focus on elements under the two categories the framework is based on but to keep an open mind about other elements that were important for the study and might have not been considered. In this stage numerous codes were identified. After finishing open coding and the next stage called "focused coding" started.

In the focused coding stage five broad categories were identified: violence, garden project, perception of insecurity, collective efficacy, and environmental modification. These focused codes were used to analyse the data line by line once again. Under these focused categories numerous themes were subcategorized. As the process continued, coding became more systematic and focused. A total of eighty two sub-codes were identified under those five categories. As Babbie and Benaquisto (2013) say "some of

these elaborated codes may begin to assume the status of overarching ideas or propositions that will occupy a prominent place in the analysis" (p.395). The process to determine these overarching themes consisted of looking for similarities and differences between codes, categorizing a number of themes into clusters, and reducing the number of conceptual categories until the highest level of conceptual abstraction based on further similarities among categories is achieved (Babbie & Benaquisto, 2013). Once the highest level of conceptual abstraction was reached where overarching themes are established, these themes were compared with literature on theory of fear of crime, crime prevention and community gardens. This point was achieved once there were no new categories being achieved.

Chapter 5.

Findings

5.1. Contextualizing my Findings

As explained in the introductory section of this study, I first came across this garden project through a short documentary film about urban agriculture in Lima. This documentary showed a beautiful garden in the middle of a sea of houses. The garden appears like an oasis in a city built in the desert. In this film some of the farmers mention that the creation of this garden in what had been an empty lot had influenced the gang activity in the location of the garden project in a positive way by removing the gang fighting from the space. During an initial visit to this garden project I was able to talk to other farmers who made similar statements. The statements I gathered during that visit to the garden project inspired this study, particularly because they are not unique. Claims about the positive correlation between community gardens and community security in other contexts can be found, mainly in non-academic literature (e.g. Cohen, Reynolds, & Sanghvi, 2012; Hodgson, Campbell, & Bailkey, 2011; Mougeot, 2005). Claims about the relationship between security and community gardens conform to certain assumptions in community crime prevention such as the idea that vacant lots attract crime and that beautiful and well maintained spaces deter crime and incivilities.

During the data collection, ten out of thirteen respondents' statements supported some of the earlier indications that the garden had changed perceptions of security in the space for the better. For example, Teresa stated that, *"This [space] used to be a battlefield for gangs, but not anymore because there is a garden."* Similarly, Hilda noted, *"Before gangs would pass by [this area] and would fight. …There was an open field for them. Now that this [garden] is here they don't fight."*

However, despite these respondents' perceptions of lessened gang activity in the garden's space, as I progressed with my data collection it became apparent that security was still an issue in the neighbourhood. In fact nine of the thirteen respondents considered gangs the main problem in their neighbourhood, and one respondent said the main

problem was security more generally. For example, Teresa told me, "*The biggest problem here is the gangs. It's too much! They have even broken the windows of my house two times. Here too, look, it's cracked! This was two months ago. …Not too long ago they came running around here. They [the gangs] were chasing a guy covered in blood".* Or in Flor's words, "*We still have gangs. We can't get rid of that with anything! For example, they [the gangs] don't let me sleep at night. …. My neighbour came down to his front door and right there Boom! [he was robbed].They [the gangs] took his backpack, his money, his cellphone."* It is clear that while many respondents mentioned an abated gang activity in the area occupied by the garden project, this garden project has not lessened the gang situation in the neighbourhood as a whole.

In this study I look at why the effect of the garden project on security has been limited, despite what might be suggested by certain theories about crime prevention and widespread assertions regarding the positive impacts of community gardens. I identify which elements of community crime prevention were established through the creation of the garden project and how they have impacted the perceptions of security in the area.

To explore these questions I have based my analysis on two well-established crime prevention approaches: collective efficacy and environmental modification. These approaches are based on dominant and influential theories identifying ways to prevent crime in communities. I first analyze the garden project in terms of collective efficacy. As I described in the literature review, collective efficacy is a crime prevention approach that relies on a combination of community social cohesion and the willingness of community residents to act for the sake of the common good (Sampson, Raudenbush, & Earls, 1997). I then analyze the garden project in terms of the environmental modification. This crime prevention approach aims to reduce environmental risks and strengthening social control through the modification of urban design. Finally I conclude this section with a summary of the findings.

5.2. Collective Efficacy

Previous studies have claimed that collective efficacy can be established through community garden projects (Glover, 2003; Teig et al., 2009). As well, collective efficacy is

believed to improve the perceptions of security in communities (Gibson, Zhao, Lovrich, & Gaffney, 2006). As described above, the concept of collective efficacy has two important components: social cohesion, and the willingness to act on behalf of the common good (including communal defence). Social cohesion is thought by some academics to be a positive benefit of community gardens achieved by the action of working together (Armstrong, 2000; Firth, Maye, & Pearson, 2011; Kuo & Sullivan, 2001). The presence of social cohesion is described by Sampson, one of collective efficacy's main proponents, to be a necessary condition for the willingness to act on behalf of the common good (Sampson et al., 1997).

In order to address my overall research question regarding the relationship between the garden project and perceptions of security in the area, I examined the presence of collective efficacy within the community. First, I examined this concept in relation to its presence among those involved in the garden project. Then, I focused on other past experiences where collective efficacy was generated within this community through previous grassroots community initiatives. Finally, I compare the experiences of grassroots community organizing to the garden project using the grassroots community initiatives as a reference point for what has worked in the past in this specific setting. Through this comparison I identify elements of collective efficacy that have and have not been established through the garden project.

5.2.1.   Collective Efficacy within the Community

Although some literature suggests that community gardens lead to the development of wider community social cohesion within the community, in the case of the garden project examined here, my interview data does not support this supposition. I did not find evidence of social cohesion related to the garden project in this community. For instance, Jose, a participant who lives across the street from the garden, told me that he only knew two of the gardeners. As he explained, *"I only know Maria and Rafael. The rest of them I've seen them around but I don't know them. I always see them around and joke with them when I see them, but I don't really know their names."* Further, despite living across the street from the gardens some of the neighbours have never been inside or shared social activities with the farmers. Only one of the community members mentioned

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any socializing between the gardeners and the neighbours. This one exception is Rita, whose friendship with the farmers allowed her to visit the gardens. However, the only times she would go to the garden was when her farmer friends asked her to visit. She told me, *"I only go to the garden when they [the farmers] invite me."* Moreover, the friendship between Rita and the farmers was not a product of any socializing activities related to the garden project; instead, this friendship preceded the garden project. These testimonies suggest that among my respondents the garden has not resulted in the creation of social cohesion within the community.

I also did not find evidence of farmers' willingness to act on behalf of the common good. There was no mention from farmers that they had organized themselves in order to actively prevent crime or gang fighting from happening in the neighbourhood. Literature on collective efficacy suggests that social cohesion is in fact a necessary condition for communal defense. It might be the case here that the lack of social cohesion prevented community members from organizing communal defence efforts.

Despite the lack of evidence of collective efficacy connected to the gardens, I found my interviewees had experienced collective efficacy in Villa Maria del Triunfo neighbourhood in the past. Those experiences of social cohesion and communal defense were related to previous grassroots community initiatives in the neighbourhood, including neighbourhood committees to obtain public services, the 'comedor popular' (community kitchen) and the 'vaso de leche' (breakfast for kids) initiatives. These previous grassroots community initiatives were initiated at different times, starting since the foundation of this area of VMT in the 1970's.

My analysis revealed significant evidence of social cohesion in the neighbourhood related to these grassroots community initiatives. Eight out of thirteen interview participants expressed that these three community initiatives were influential in creating a sense of togetherness or unity. Respondents often referred to members of the community who had participated in grassroots organizations with them as friends. In Yolanda's words, *"We were a tight community, we have been together and supporting [our representatives] so they can be successful…[Because of the community initiatives] in my neighbourhood I know people everywhere, friends, neighbours, we all know each othe*r." Yolanda's words

also showed how her involvement in these initiatives had led her to know other members of the community. Rita mentioned something similar; she described her experience saying: *"I have been always part of the 'comedor popular'. I have been in the board of directors, I have been president and I am still a member helping the new president… We [the people I have met through these initiatives] are all founders of the community, we all know each other."* Her tone of voice and confidence in this quote reflected that for her it was obvious that all founders were well acquainted. Rita also added that there was trust between founders. She said: "We trust each other." From these quotes it is clear that grassroots community initiatives helped community members to form relationships and build trust.

The social cohesion created by the grassroots community initiatives is linked to experiences of communal defence. Two of the founding members of the community cited episodes related to neighbourhood committees in which the community had organized itself to try to improve safety in the neighbourhood. Carmina seemed impressed to what they had achieved in terms of safety as she recalled, *"To me a great experience was when in 2007 or 2008 we organized ourselves… because there was a lot of delinquency. We formed a community safety committee, men and women would patrol at night".* Juan excitedly shared a similar experience: *"Before we patrolled the streets in groups around …Here there was a lot of delinquency. [One day] we were in a [neighbourhood committee] meeting when we heard people screaming "Thief! Thief!" We all surrounded the thief, we caught him inside a house… we caught him".* These experiences demonstrate how these grassroots community initiatives created the two elements of collective efficacy in the community**.**

5.2.2.   Grassroots Community Initiatives

The grassroots community initiatives discussed above provide a point of reference highlighting how collective efficacy was developed in the VMT context. In this section I provide further background on these initiatives. First I give a brief description of the neighbourhood committees, the 'comedores populares' and the 'vaso de leche' initiatives. After, I discuss the three main factors I found related to these initiatives which may have

contributed to the creation of collective efficacy. The three factors are: the inclusiveness of the initiatives, the type of communal work and the frequent social activities.

The neighbourhood committees, the 'comedor popular' and the 'vaso de leche' initiatives have been a common part of the foundation of many shanty towns in Lima (Riofrío, 2003). Eight of the study participants described the origins of these initiatives in their community. These participants had all lived in the area for thirty to forty-six years. They all identified themselves as founding members of the community, having come to the area when there was, as research participant Rita described, literally nothing but sand. As Rita proudly explained, "*In that time a new community was forming, so we came here. We built a shack in the middle of the sand. …This was a place that nobody wanted…so we formed this community with a group of people. We came to live here without electricity or water.*" From Rita's comment we can grasp the harsh environment in which the founders of this community had to build their community from the ground up.

In this challenging context of creating a community out of nothing, grassroots community initiatives originated with groups of neighbours coming together through collective action to obtain public services or fill other needs of the communities where the state was not providing solutions. For example, neighbourhood committees worked towards getting access to basic services such as water connection, sewers, electricity and street paving. The other two grassroots community initiatives, the 'comedor popular' and the 'vaso de leche', worked mainly to provide food to children and members of the community.

The first aspect that I found which may have influenced the creation of collective efficacy in grassroots community initiatives was that all three initiatives were inclusive; every family in the community who wanted to join could be part of them. Families were represented either by a couple, in the case of the neighbourhood committees, or by a women (the mother), in the case of the 'comedor popular' and 'vaso de leche'. In collective efficacy theory, the collective aspect, or what Sampson calls the 'we' aspect, is a fundamental factor of its composition. The inclusive nature of these initiatives may have had a broad effect in the creation of collective efficacy in the community precisely because of the opportunity they presented to develop trust and solidarity at a community wide scale.

Besides the inclusive nature of these initiatives, the second factor I found that may have helped foster the creation of collective efficacy (in these initiatives is that fact that community members worked together. In the case of the neighbourhood committees the members would work towards the neighbourhood's goals. As mentioned previously, these goals were mainly getting access to public infrastructure. In order to do this they would elect representatives and would get together weekly to discuss the community's problems in neighbourhood assemblies. Members would then support their representatives in the process of getting the infrastructure needed from the government. In the case of both the 'comedor popular' and 'vaso de leche' members took turns to work together on a daily basis to provide food to the community. These two initiatives had similar structures; each had a committee of women and would elect a president who would oversee the provision of the supplies and coordinate with members different aspects of the initiative such as the dates each member had to help in the kitchen.

For the eight participants who said the grassroots community initiatives were influential in creating social cohesion in the community, their work with the grassroots community initiatives was one of the reasons that unity in the community had developed. For Rita, this communal work allowed them to meet the other members of the community. Rita described her experience saying, *"We worked all together [in the neighbourhoods committees]. I know everyone because of this [work]."* Or as Rosa put it, "*I have lived here for 30 years …I met my neighbours while working [in the neighbourhood committee]."*

Further evidence of how working together is important for collective efficacy is found in the following excerpts from interviews with Teresa, Rosa, Yolanda and Juana. These four participants, who explicitly mentioned community closeness related to grassroots community initiatives, also mentioned that they no longer perceive VMT as a close community. For each of these women, the rupture of cohesion in the community was related to moments when they had achieved what they needed, such as electricity and water, or they had finished with the construction of their houses and had therefore stopped working together:

> "Each one builds their house and they worry about themselves. It's not like before…Before we were more united because we didn't have built houses. We lived in little shacks and the neighbours would come out, we would do things, we would get together, play. Now people work, work, work, they

build their houses. Before I remember that we would make food together, or we would play during carnival but not anymore. [Now] Each one is in its house, inside, with its problems. They don't get together to talk in how to help the neighbour… That has changed. Before we had that and now we don't." [Teresa]

"Now that most have electricity and water they [the rest of the community members] live their own lives. It's not like before. When we used to live in a shack we were more tight. We had assemblies, we worked together. Everyone! Now since they [the rest of the community members] got their electricity and water each lives its own life."[Rosa]

"Now that we have our property titles, there is no more unity. Each one lives on their own. ...This has happened 5 years ago…Before we were a close community. Now only in certain occasions we have assemblies, but before it was more." [Yolanda]

"At the beginning we were all friends. We would all get together and share. Now each one is inside their house and that's it! [Now] If there is any conflict, nobody comes out of their house. If there are gangs, only a few come out but others don't. " [Juana]

These interview excerpts not only demonstrate that the loss of social cohesion may not only be related in part to the loss of communal work but also to the loss of social activities linked to grassroots community initiatives. The relation between the loss of social activities and the loss of social cohesion led me to believe that frequent social activities may have been another factor in the creation of social cohesion in the neighbourhood.

The frequent social activities in community initiatives is the third factor I found which appears to have influenced in the creation of social cohesion. These activities included the formal assemblies which took place weekly and informal gatherings such as parties and dinners. Five out of eight founding member of the community mentioned that the social activities related with the community initiatives fostered unity in the community. For example, Yolanda mentioned the weekly neighbourhood committee meetings as a reason for the togetherness of the community. As Yolanda recalls, *"We were a tight community …every week we had assemblies."* Also, the network of relationships produced through these initiatives helped to create social activities which in turn further contributed to the strengthening of the community. Maria described how her involvement with the 'vaso de leche' initiative led her to an active social life in the community and

enabled her and other members of the community to build trust and care among themselves. As she recounts:

> "I go to parties when they are organized by the 'vaso de leche' committee…With the others moms have the habit of visiting each of the members for their birthdays. We each collaborate with some money and we buy a present or whatever the birthday lady wants...And we go visit them, we eat together, we dance among us women and we have a good time with the 'vaso de leche' group. It's really nice …we are a good group of friends." [Maria]

Maria's statement and other similar comments highlight the positive social impacts of formal and informal social activities associated with the community initiatives.

5.2.3. Comparing Grassroots Community Initiatives with the Garden Project

Unlike the grassroots community initiatives, the garden project has not been able to generate collective efficacy in the community. In this section I compare grassroots community initiatives with the garden project in order to identify elements of collective efficacy that have and have not been established through the garden project. I specifically look at three factors that may have affected the lack of creation of collective efficacy in the community in relation to the garden project. These are based on the comparison of grassroots community initiatives and the garden project. The three factors are: the exclusivity of the garden, and the lack of communal work and frequent social activities among the farmers.

The first aspect I found that the may be discouraging the development of collective efficacy is the exclusionary nature of the garden project. This factor stems from the way the garden originated and the ongoing participant recruiting process. While community initiatives were born from within the neighbourhoods, as explained in section 6.2.2, the garden project was started by an outside not-for-profit organization. Further, the garden project's creation process was top down, in contrast to the organic way in which the grassroots community initiatives were created. In fact, the gardeners saw the garden project as an outside initiative that was not in their hands. As Flor said, *"The [NGO] told us, 'Let's create the garden'."* All six of the farmers I interviewed made similar remarks

about how the creation of the garden project was out of their control. This can be seen in the following quotes from four farmers (Carmina, Rosa, Maria and Flor) describing how they got involved with the project:

> "The first garden was formed up there, then [the other garden] was formed down here. They [the NGO] gave us technical assistance and then they chose who could be here. That is how we started." [Carmina]

> "Georgina [the NGO rep] came [to the neighbourhood]. She was working on the second garden, preparing the plots… She told me to come to help her transplant some plants. She asked me if I wanted to work. I said Yes. You will have a plot here [she told me]….This was 8 or 9 years ago." [Rosa]

> "Georgina [the NGO rep] knocked at my door and asked me if I wanted to participate in the garden, and because I was in need I told her: Yes, sign me up, and she did." [Maria]

> "They [the NGO] told us, let's create a garden, it [the garden] started up here, let's build it where that garbage is, let's clean, they told us. So we all went to clean…we all worked." [Flor]

In this first stage of the garden project, the recruitment strategy consisted of the NGO handpicking farmers. This recruiting process seemed arbitrary to participants such as the farmer Carmina. As she put it, "they [the NGO] chose who could be here." The farmer Flor also felt that the recruiting process was in the hands of the NGO, and she had an inkling about how and why she had been selected. In her interview Flor said that she thought she was selected because she had participated in a visioning exercise and her idea for the garden had won a contest. As Flor told me, "*I had participated in the visioning workshop, I made a drawing of the garden and so I won a contest and I got a space down here.*" The farmer Maria also mentioned that the NGO was in charge of the recruitment process, but she had a different idea of how people were selected. In her words, the garden is *"for those in need."*

This type of recruiting process has continued. The NGO representative still decides who can join the gardens to farm and she is also the person responsible for assigning plots to farmers. As Juana explained, "She [The NGO rep] wants to give that plot to the same lady that is growing already there, but she has plots already. She grows here and she grows there." Further, it can be difficult for other members of the community to join the garden. In her interview Carolina told me, "I want to have a plot in the garden."

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However, she later told me that she had been trying to follow up with the NGO representative to join the garden with no luck. Reaching to the NGO coordinator is not easy for members of the community since she does not live in the neighbourhood and she does not have a fixed schedule for visiting the gardens. Juana's and Carolina's experiences show how that the NGO is still in control of the selection process of participants to be part of the garden project. Throughout the years the garden has been functioning the recruiting process has not been inclusive.

These exclusionary aspects of the garden project contrast significantly with grassroots community initiatives where all members of the community were welcome to join. As mentioned in section 6.2.2, I found that the inclusive nature of the grassroots initiatives may have facilitated the development of a broad sense of collective efficacy because of the possibility for the entire community to get together and defend themselves. In contrast, the exclusionary nature of the garden may mean that the effect of the garden is limited to those who participate and not to the community at large.

The second aspect that may have limited in the creation of collective efficacy through the garden is the lack of communal work. In grassroots community initiatives I found that collective efficacy (more directly social cohesion) seems to have been fostered in part by community members working together. In contrast, in the case of the garden project, I found that this type of communal work was not significant. Communal work only happens a few times a year when farmers needed to work on aspects of shared nature, for example, the cleaning of the garden, trimming plants in common areas, bringing in fertilizer, and prepping the soil. As Carmina put it: "Only sometimes we have 'faenas' (communal work)…when we have to do cleaning."

In fact, independent tasks are the most common type of work in the garden project. From the six farmers I interviewed five farmers mentioned that they worked independently. Flor's words are an example of what a number of farmers mentioned: *"I work on my things alone."* Time availability was mentioned by Maria as one of the reasons for farmers to work independently. As Maria recounted: *"[We work at] different times. The ones who have time in the afternoon go in the afternoon, the ones who have time in the morning go in the mornings."* However, the main reason for working on their own seemed to be the fact that

every farmer has an individual plot. As farmers Carmina and Rosa mentioned: "*Each one works when they have time.… Each one has their own plot so each one is in charge*" (Carmina); "*In my section we are two [farmers], she has her plot and I have mine. We each grow whatever we want in our plots*" (Rosa). Farmers are able to work independently and for their own benefit because each farmer has its own plot and therefore do not need to rely on each other's help to obtain their products.

Furthermore, this type of independent work in the garden created conflict among my interviewees. For example, Machu Picchu farmer Juana explained how this type of independent work affected friendships in her group. When I asked Juana if she considered the farmers her friends she responded in a manner that seemed bitter, "*They [other farmers from her garden] are not worthwhile. Each one wants to do their own thing. They want help, they want me to water their plants but they never help us! They don't want to share the maintenance of certain things.*" Cavani garden farmer Rosa also talked about the conflicts she had with other farmers in issues regarding independent work. In her words, "*Sometimes I have discussions with the other farmers…We fight for little things. I tell them: Don Julio you have done this! Saira! You have done that! There is always conflict!*" In this quote she is referring to what farmers have independently done in the garden without consulting the others, such as using up all the water or planting outside of their plot. From the interview excerpts above, it appears that the type of independent work in the garden project did not facilitate social cohesion even created conflict among the farmers.

Finally, the third aspect that may have affected in the creation of collective efficacy is the lack of frequent social activities. In grassroots community initiatives I found that the creation of social cohesion (and therefore collective efficacy) appears to have been influenced by the frequent socializing activities. In the garden project, by contrast, I found that there was a lack of socializing activities. While in grassroots community initiatives formal and informal meetings and gatherings happened every week, in the garden project meetings and social activities were rare. As farmers Flor said: "*Meetings are not very often*" (Flor). One of the few times when farmers would get together according to farmer Carmina was when the NGO programed educational meetings. In Carmina's words: "*Only sometimes [we see each other] …when we have informative talks.*" Other social activities

such as dinner parties or informal gatherings were also rare within the gardens. One exception was the Saccsayhuaman garden, where social activities organized by farmers happened almost every week.

In the Saccscayhuaman garden I found that their social dynamics were more similar to those in the grassroots community initiatives, where social activities took place more often. During my data collection I was able to attend one of their Friday gatherings. Five farmers got together after working in their plots. I sat with them in a social space in the middle of the garden, where they usually have their dinners and meetings. They joked, talked about their lives and shared snacks that some of the farmers brought. I was told by the Saccsayhuaman farmers that this type of gathering was a very standard Friday gathering. In this garden unity was expressed in friendship and trust between farmers. Yolanda enthusiastically explained how the closeness among farmers from the Saccsayhuaman garden was achieved through social activities and sharing: *"…we cook together in the garden on Fridays. We share! That's how we are… We get along well, we haven't had any fights."* Among the four gardens this kind of social cohesion was unique to the Saccsayhuaman garden. The frequent number of social activities in this garden might have been one of the elements that led farmers to be a more cohesive group. On the other hand, the lack of socializing activities in the rest of the gardens, might have been an element the lead to the lack of generation of cohesion among farmers.

Another element that might have influenced the generation of social cohesion in the Saccsayhuaman garden is the fact that this garden is one of the only two (the other one is the Machu Picchu garden) that have a space to socialize. However, even though the Machu Picchu garden also has a space to for the gardeners to socialize, the effect has not been the same. There might be particular elements of the space design that could influence in the strengthening of social ties.

5.3. Crime Prevention through Environmental Design

CPTED is the second crime prevention theory on which I have based my analysis. In contrast to the collective efficacy crime prevention approach, which focuses on the social aspects of crime prevention, the main goals of the environmental modification

approach are to reduce environmental risks and strengthen social control through the modification of urban design. This crime prevention theory originates from Oscar Newman's Defensible Space. According to CPTED, there are a number of elements that can improve crime, incivilities, and the perceptions of security in space. Examples of these elements include the use of new activities in the space as a trigger for social informal control, the space users' capacity for surveillance within and towards the space, the improvement of the image and maintenance of the space, and the use of physical elements that prevent unwanted activities in the area. According to Cozens, Saville and Hillier (2005) these strategies are interconnected, and act together in preventing fear of crime and crime itself. These different CPTED strategies can be broadly grouped in two separate categories – those related to surveillance and those related to physical modification of the space. For the analysis of my data I have used these two broad categories, which I have called: surveillance and physical modification.

I analyzed the garden project based on these two categories in order to address my overall research question. First, in the section I have called Surveillance, I looked at whether the space's new function as a community garden may be affecting community safety by encouraging a new pattern of usage of public space, promoting different types of surveillance or informal social control that could be discouraging illegitimate users. In this section I also looked at other elements that might be affecting the participant's capacity for surveillance of the space. In the following section, entitled Physical Modification, I examined whether the maintenance of the space or its new image may be affecting community safety I also examined how different security elements used in the garden project might be influencing the participant's perceptions of insecurity.

5.3.1. Surveillance

In this section I explore the CPTED idea that a space where there is social informal control is safer than others where there is no surveillance. I focus first on activities taking place in the garden and next on the participants' surveillance capacity both from and towards the space. Many of the ideas here have been explored in the earlier section of collective efficacy, but with regards to the social aspects of the garden project rather than aspects related to surveillance.

As the previous section outlined, I found that the activity in the garden project is minimal. The garden is used almost exclusively by farmers and their families. Not only are the gardens used by a very small number of community members, but the farming activity is sparse; farmers work independently and the number of farmers working at the same time in the farms is very low.

The level of activity in the garden project also fluctuates during the year due to the different types of work needed for the crops depending on the season. In the following excerpt Rosa explains her work routine according to the time of the year:

> "Now I only work a couple of hours, that's all. I have to grow the seedlings during March-April. In a month and a half I have to transplant and prep the soil. At that point I have to be there every day. April, May, June, July, all the time. Plants start growing and we can start selling. All winter we work like that."

In this example, it is apparent that the activity during the summer months (January, February and March) is minimal. During my fieldwork, which took place in the summer months, I was able observe that the space was hardly used in the mornings. The farmers would mainly work in the late afternoons. By contrast, in the winter months farmers like Rosa told me they spent many hours of the day working in the garden. Although according to Rosa there is more farming activity in the garden during the winter months, the type of activity is the same; farmers work independently and there are only one or two farmers present at a time. This low level of activity in the garden means that the farmers' capacity for surveillance is very low.

Regardless of the level of activity inside the garden, the opportunity for participants' surveillance is affected by the hedge surrounding the space. This hedge, as explained earlier, is made up of trees and bushes that surround the perimeter of the gardens. This "security element" limits the possibility for social informal control because it obscures the visibility from inside and outside of the garden and even increases the chances of assault outside the garden. For example, Yolanda appeared scared as she told me that this security element creates a space where people can hide to commit crimes. As Yolanda put it:

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"I am afraid of that path between the hedges. There are always potheads there, from 6pm on. You can't walk there. I don't go through that path. I go to my house through the other door…The other day I came with my husband. We were resting here, just sitting and we heard a girl screaming. She was robbed right outside. They took her phone." [Yolanda]

Moreover, Juan, one of the neighbours, also assured me that serious crimes are committed in between those hedges. Juan's tone of voice changed from confident and relaxed to agitated and concerned as he told me the following:

"There is rape there! Rape! Right there in between those plants, that hedge. That hedge is like protection for those kind of things. That hedge is bad! It is not even a good plant, a fruit, it's just like wild bushes. It's only a hedge, but it's too big! … if you go through there you can get grabbed ….people drink there." [Juan]

These quotes show that neighbours still feel fear in the space. This fear is now focused on certain areas such as this path between the hedges. The image below shows the space between the two gardens (Machu Picchu and Saccsayhuaman) that Yolanda and Juan talked about.

Figure 5.1: Path between Machu Picchu and Saccsayhuaman gardens

The analysis of the participants' capacity for surveillance associated with the garden revealed that the level of activity generated by the gardens is very limited and the potential for social informal control is negatively affected by the hedge that surrounds the garden project. Further, the hedge not only reduces the participants' capacity for

surveillance but has become an element that may facilitate certain types of crime. In conclusion, the possibility of social informal control related to the garden does not deter crime or improve perceptions of security. In fact some elements of the garden even have a negative impact in the perceptions of security in the area.

5.3.2. Physical Modification

In this section I explore the CPTED idea that physical modifications in a space can deter crime and incivilities as well improve the perceptions of insecurity. In order to do so I examined the state of the space before its transformation into the garden project. Next, I looked at how this space was changed, first in terms of the space's image and then in terms of the occupation of the space and the use of security elements in the garden project design. I examined each of these elements – the image of the space, the occupation of the space, and the use of security elements in the space as well as their effects on respondents' perceptions of security.

As mentioned above, the space now occupied by the garden project used to be an abandoned empty lot. That space was described by respondents with the terms *pampón* or *pampa* interchangeably, instead of the Spanish equivalent of the term 'empty lot' (*terreno vacio*). The terms *pampón* or *pampa* are both used in Peru to refer to a large rustic piece of land without fencing. Both are derived from a Quechua word for 'plain' or 'prairie'. What is particular about the meaning of *pampón* is the fact that it describes a specific type of space, and one of its main attributes is the fact that it is open (without any sort of enclosing element like a wall, fence or hedge). This word does not have an English equivalent; for the purpose of this study I have translated pampón as an open, large vacant lot. Aida's words show how most respondents referred to that space in the past. Aida described the space in the following way: *"Before it [the area where the garden project is] was just a pampón …there was nothing."*

In the participants' description of the previous state of the garden project, almost all the respondents (twelve out of thirteen) associated this *pampón* with unwanted activities – not only gang activity but also illegal garbage dumping, drug use and robberies. As mentioned in section 6.1, nine of the thirteen respondents expressed that

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there had been gang activity in the *pampón*. For example, non-farmer Rita remembered with uneasiness and fear the constant fighting in the space. In her words: *"This was a pampón, where gangs would fight! It was an eternal fight."* Five respondents commented on how this space was used as a garbage dump. Two of those five respondents, farmer Rosa and non-farmer Teresa, mentioned the illegal disposal of garbage along with the gang activity in the space. As Rosa and Teresa recalled: *"This was full of garbage, it was a pampa! There was a lot of gang activity." (Rosa); "It was a pampa full of garbage, people would go there to throw their garbage … It [the area where the garden project is now] was a battlefield [for gangs]" (Teresa).* In both cases, I noted rejection and disapproval of the *pampón;* in Teresa's case she was so fearful of that space in the past the she avoided walking through it. Also, farmer Carmina told me that people used drugs around that space in the past. As Carmina put it: *"This was a pampón before, there were junkies and gangs would run across"* And finally farmer Yolanda talked about how that space attracted robberies. In Yolanda's words: *"it was all sand… [an] empty sandy lot,… there were a lot of robberies."* In all those cases where respondents talked about the *pampón* in association with unwanted activities, I noticed that the respondents' tone was negative. The unwanted activities associated with the *pampón* gave this type of place a negative connotation. I sensed feelings of rejection, disapproval and fear in regards of respondents' perception of the *pampón*.

Those feelings towards the *pampón* were not unique. In my data collection I was able to capture another example of a *pampón* that was associated with unwanted activities in the neighbourhood. Carolina, a non-farmer, described vivid memories of what it used to be a *pampón* across the street from where she lives. She told me the following in a concerned way:

> "This was a pampón before…this was a toking hang out, there was even rape here, nobody could cross because they would get robbed, it was all dark…I am talking about when I was 7 or 8 years old, around that time. I could see everything because I live right across the street. There was constant fighting, around all this area, and all the houses saw the consequences of the fighting" [Carolina]

Carolina continued telling me the story of how this other *pampón* was transformed into something else in the past, and how this transformation had an effect on those

undesired activities and the negative perceptions of security around that space. In this part of her story I could sense how she was relieved by this modification in the area. She commented that since the lot was developed into a school the community safety improved in the area. As Carolina explained:

> "Then after some time people came to build in that space. We thought it was going to be a park, but that never happened. Now it is a school and well, it is very good because there are no more flies [because of the garbage], no more gangs, no more fights, no more parties, nothing. Now we [the neighbours] are more stable…It would be very hard that there would be gang fighting around here anymore."[Carolina]

During Carolina's interview I was able to observe the results of the transformation in this other *pampón*. The modification in the space that she was talking about was a big wall in front of Carolina's house, as can be seen in Figure 5.2 below. For Carolina this long wall in front of her house meant an improvement in the area, especially with regards to security.

Figure 5.2: Community members sitting in front of what used to be a vancant lot

Carolina's improved perception of security towards the conversion of the *pampón* located in front of her house was not unique. I found that nine out of thirteen respondents cherished the physical transformation of the space which resulted from the garden project.

Respondents' improved perceptions of the space were connected in particular to the decline in some of the unwanted activities in the space mentioned above. Starting with Carolina, who also perceived the modification in the garden project as an improvement because both garbage dumping and gang activity had stopped since the change. In Carolina's words: *"It's good that there is a garden now because if not people would have continued throwing garbage, there would have been more gang fights."* Moreover, despite the fact that her family does not obtain any direct benefit from the garden, non-farmer Hilda told me that the creation of the garden was a step-up for the area. In Hilda's words: *"Even though we don't gain anything from the garden, I think it is better that it is there."* Hilda also explained that the reason for preferring the space now was because gangs do not use the space anymore. Hilda seemed satisfied as she mentioned: *"[before] gangs would come here…now [the gangs] have a little more respect [for the space]."* Finally, for farmer Maria, the space is now better because robberies declined after the garden project started. As Maria put it*: "There was a lot of robbers, but since the garden started there is none of that anymore."* However, this statement seem to contradict Yolandas's earlier statement (see Section 5.2.3) where she mentions how in certain areas around the garden robberies are still committed.

Like the CPTED assumption that vacant lots attract crime and fear of crime, I found that according to my respondents the *pampón* seemed to be attracting illegal activities. I also found a sense of disdain from the respondents' remarks towards the notion of the *pampón*, as if a large vacant lot without a fence would be always bad in terms of security. Additionally I found that there was a perception among respondents that the transformation of the space was for the better, even if some did not benefit from the use of the garden. In the following paragraphs I look at whether these changes in the community members' perceptions of security of could have been because of the improvement of the space's image and maintenance, the occupation of the space, or use of security elements.

In terms of image, I found that five respondents out of thirteen (both farmers and non-farmers) expressed that the new appearance of the space was beautiful. For non-farmers, even though they do not use the gardens they enjoy the view of the green space. For example, Rita and Carolina made similar remarks about the appealing new aspect of

the space. In their words: "Now it [the area] looks pretty!" (Rita); "I see the garden here, it's beautiful!" (Carolina). Two other non-farmers, Jose and Juan, mentioned that what they like about the image of the garden project are the plants and nature. As they put it: *"From the garden what I like are the plants. They are really pretty. I like plants" (Jose); "The garden is very pretty…the trees are beautiful…I like it because it's nature" (Juan).* In addition, farmer Flor not only perceived the space as beautiful but she also mentioned that the garden brought her happiness. As Flor said: "This [the gardens] made me happy, it looks so beautiful!"

Moreover, for two additional respondents, farmers Rosa and Carmina, this new beautiful image of the space seemed to fulfill them. They both proudly mentioned that they have heard neighbours commenting that plants make the space look attractive. As Rosa and Carmina told me: "*People that walk by see the garden and say "It is pretty!""* (Rosa)*; "When the garden is green [neighbours comment] it is so pretty! …The people that are from the Andes like this [the garden]*" (Carmina). From the interview excerpts presented above it seems that the respondents' perception of the space's beauty has improved greatly, especially by the use of plants. The seemingly increased perception of beauty of the garden project might be in part because of the fact that VMT is a very densely populated district built in a mountainous desert where there are almost no green areas. As Teresa words reflect: *"We lack green spaces in this area…You can see now, all you see are houses, there is no green anywhere."* The sharp contrast between the district and the gardens can also be appreciated in the following picture taken from inside one of the gardens.

Figure 5.3: Machu Picchu garden with VMT in the background

The improvement in the perception of beauty of the space seems to be influencing the perception of one particular unwanted activity in the area: illegal waste dumping. I found that five respondents had a sense that the improved image of the space was helping with keeping the area clear of waste. For farmer Flor the space's appearances became more appealing with the use of plants and it also deterred the illegal garbage disposal. As Flor put it: *"I didn't like that garbage [in the space] … [With the gardens] the landscape started to look pretty, cleaner. No more garbage."* Furthermore, the experience of greening the *pampón* inspired members of the community to think about how the community might transform other spaces in the neighbourhood to get rid of garbage. For example, non-farmer Teresa commented on how the transformation of other *pampones* into a green space could solve some environmental issues in her neighbourhood including garbage dumping. In Teresa's words: *"[I would like other pampones to be green] so the people can learn how to take care of the environment and so people wouldn't throw garbage. Right now you can smell how people are burning garbage. I don't want that, I want green*." Non-

farmer Juan also commented how two of his neighbours have also been inspired by the transformation of the 'pampón' and now want to use plants in the front of their houses to stop people from littering. As Juan's put it: "*Right here, there are two neighbours that are interested in having a garden. They want to create a garden around here were that dump is. They want to have a garden so people stop throwing garbage.*" From these quotes it is apparent that improving the area's image in particular with the use of plants has positive impact on these participant's perceptions about garbage dumping in the space.

Despite the fact that there may be a relationship between the beautification of the space and the cleaning of the space, I did not find direct evidence that this new image had an effect on participant's perception of insecurity in the space. However, I found that two respondents mentioned the transformation of the space in relation to respect for the space. In the first example non-farmer Rita mentioned that in the past people had not respected the *pampón* and therefore unwanted activities including gang fighting took place there. As Rita told me: *"Uy! This was a pampón, where gangs would fight! It was endless fighting. That's why they [the NGO] have made it a garden…There was no respect…They [gang members] would steal wires from the electric tower over there. They would do drugs. They would steal."* A similar idea was mentioned by non-farmer Carolina; she talked about how now gangs respect that space, even though she still sees them walking in the area. In Carolina's words: *"they [the gangs] still walk around but now they have respect."* By respect Carolina was referring to the fact that gangs do not fight there anymore. The fact that these two respondents expressed that they thought gang members now have respect for the area (mainly due to the beautification of the space), may mean that these participants feel confident or trusting that gang fights will not happen there anymore.

Besides looking at the effect of the *pampón*'s new image, I explored how participants' perceptions of insecurity might have been influenced by the physical occupation of the *pampón* and the inclusion of security elements in its design. These two specific aspects of the transformation of the *pampón* seem to have had the biggest impact on the perception of security, specifically regarding gang fighting.

As described in section 5.1, ten out of thirteen respondents mentioned that the creation of the garden project meant a decline in the gang activity in the space. Of these

ten respondents, seven attributed the change in gang fighting to the occupation of the space and the inclusion of security elements in the space. Three of these respondents referred to the fact that the garden project has taken over the gangs' space to fight. For example, non-farmer Jose mentioned that gang members now do not have the possibility of fighting since the gardens are occupying the space that used to be the *pampón*. As Jose recounted: *"[Gangs] don't fight anymore maybe because of the gardens. They [gangs] don't have the option to fight."* (Jose) Non-farmers Carolina and Hilda had similar comments; they mentioned that the fact that the space was unoccupied was a reason for the gangs to fight there. In their words: *"Gangs would come here because it was empty"* (Carolina); *"[Gangs] mainly look for open space to fight. Now that this [the gardens] is here they don't fight, they don't. There is no space."* (Hilda) Not only did Hilda comment on the emptiness of the space as a reason for the gangs to fight, but she emphasised the fact that this vacant lot was, in her words, "too open". She described the space in the following way: *"This is no longer an open field, before it [the space] was too open."* By saying that the space was an open field Hilda is referring to the fact that the space is not enclosed or hedged. I have translated her comment as 'too open', but might also be translated as 'too public'. I also got the impression that she believes spaces should not be 'too public'. I noticed that in her statement that she seems to lay a certain amount of blame on the public nature of the *pampón* for the insecurity.

The other four participants who attributed the reduction in gang fighting to a physical modification in the space referred specifically to the enclosing of the area as the reason for this decline. In farmer Carmina, non-farmer Teresa and farmer Rita's words:

> "Now it [gang fights] doesn't happened because we have closed [the space]" [Carmina]

> "[This space is not a battle field] anymore because we have the garden. It's like they can't cross, or they can't get in" [Teresa]

> "[Now gang fight it doesn't happened] because the garden is all hedged, it is all hedged" [Rita]

Rita's quote is particularly interesting because she specifically mentions the use the hedge as a way of getting rid of the gang fighting. Carmina, Teresa and Rita's quotes reflect a similar sentiment towards enclosing a large vacant lot, as Carolina's previous

comment about enclosing the other *pampón* in front of her house. In all those cases the closing off of a *pampón* seemed to be seen as an improvement in security in the area.

Despite the shared perception that enclosing the space led to reduced gang fighting, the effect of the garden project seems to be strictly related to the gang fighting in the space. Three participants mention that there still seems to be a gang presence on the site, if a non-violent one. Non-farmer Jose mentioned how gang members still walk around the area. In Jose's word*s: "Yesterday I saw them [the gang members] passing by …. They don't throw rocks anymore. Before they did. Gangs would fight against the other, but not anymore. That stopped." (Jose)* Carolina and Hilda also mentioned the occasional presence of gang members on one particular street corner in front of one of the Machu Picchu garden. In Carolina and Hilda's words: *"Sometimes some gang members come to this corner" (Carolina); "We don't see gangs very often. Only every now and then they [gang members] hang out in that corner, but it is not every day. It is only sometimes. We live in a constant state of alert, but besides that all is calmed." (Hilda)* By saying 'all is calmed' Hilda is referring to the fact that there are no more gang fights in front of her house. Her words seem to show an improvement in her perception of security; however, they also reflect that she still lives in a constant state of vigilance.

Finally, despite the fact that gang fights do not happen in the area occupied by the garden project, I found that they still happen in other areas. As farmer Juana and non-farmer Teresa mentioned gang fights have moved to other places: *"I have heard they [gangs] have moved to Huaycan [a different neighbourhood]" (Juana); "they fight over there…in the street, between the houses. They come running, throwing rocks, they also have knifes, machetes, pieces of rebar…The fights are on the streets now…they have moved…before they were in the pampón" (Teresa).* These statements point to the displacement of the gang fighting problem to other places.

The analysis of spatial modification revealed that the closing off of an empty lot is seen as a solution to the pampón, which had attracted unwanted activities including gang fighting. In this sense the effect of this garden might be a false impression of security. For some respondents enclosing an open space is seen as a good thing, even if it is excluding most of the population from the space. It seems that for respondents the benefits from

having a clean and gang-fight-free closed space are greater for them than having an open public space. The transformation of the space is seen as an improvement to the area; however, this 'solution' is very localized. In the case of gangs, this solution is only the displacement of this activity to a different place.

Chapter 6.

Discussion and Conclusion

Although there is little scientific evidence that community gardens have a positive effect on perception of insecurity and fear of crime in neighbourhoods, claims about this correlation are abundant in non-academic literature (e.g. Cohen, Reynolds, & Sanghvi, 2012; Hodgson, Campbell, & Bailkey, 2011; Mougeot, 2005). For authors Gavin, Branas, Keddem, Sellman and Canuscio (2012) there are certain elements of community gardens, such as the increase in social ties and the beautification of neglected areas that could influence perceptions of security in the surrounding area. These claims about the relationship between security and community gardens conform to certain assumptions in crime prevention, particularly in two crime prevention approaches: one that focuses on strengthened social ties and communal defense (collective efficacy) and the second that focuses on physical modification of the space (environmental modification). To answer my research question, "**What is the relationship between the urban community garden project in VMT and the perceptions of security in this marginal neighbourhood of Lima?**" I based my analysis on the foundational principles of the collective efficacy and environmental modification crime prevention approaches. I first analyzed the garden project in terms of collective efficacy and then in terms of environmental modification.

6.1. Collective efficacy

The two necessary elements for collective efficacy according to the collective efficacy theory are social cohesion and communal defense. The same theory specifies that social cohesion is a condition for communal defense. Accordingly, in my analysis, I first sought evidence of social cohesion created by the garden project. Only a few academic studies have examined the relationship between social cohesion and community gardens (e.g. Armstrong, 2000; Firth, Maye, & Pearson, 2011; Kingsley & Townsend, 2006) despite the numerous claims that community gardens foster social cohesion. Contrary to those claims, I found limited evidence of social cohesion in the garden project in VMT. In only one of the four gardens (the Saccsayhuaman garden) was

there evidence of strengthened social ties. Further, the community strengthening in this garden was only among farmers and not with the broader community. In addition to finding little evidence of social cohesion created by the garden project, there was no indication of communal defence. It is possible that the lack of social cohesion prevented community members from organizing communal defence efforts.

Not having found social cohesion and communal defense (the two conditions for collective efficacy), I did not find evidence for the presence of collective efficacy. This finding contradicts the studies by Glover (2003) and Teig et al. (2009), which both found that community gardens strengthened community and improved the perception of security among gardeners. Despite the lack of evidence of collective efficacy related to the garden project, I did find that this community had experienced collective efficacy in the past. These experiences were related to three prior grassroots community initiatives. As a way of understanding why the garden project has not generated the same effect in the community, I compared these prior initiatives with the garden project. Through this comparison, I identified three factors that could explain why this project has not created collective efficacy: the exclusivity of the garden, the lack of communal work, and the lack of social activities among the farmers. These findings are similar to those of Firth et al. (2011) and Kingsley and Townsend (2006) that examined the relationship between social cohesion and community gardens. In the next paragraphs, I review each of these factors.

The first factor, the exclusivity of the garden, stems from the exogenous origins of the garden project and the ongoing participant recruiting process. The garden was created with a top-down approach by a foreign not-for-profit and the governance structure of the garden has continued to be in hands of the not-for-profit. My data suggests that the origins and governance structure of the garden project might be the reason that the community at large does not participate in the project and that the effects of the garden of social cohesion have been limited to those who participate. This finding echoes Firth et al.'s (2011) finding that one of the aspects that affected the type of 'community' formed in community gardens was its governance structure. In their exploratory study about the generation of 'community' in two community gardens in England. Firth et al. (2011) found that in the garden founded by outsiders to the community in which it was located, the generation of social capital was mainly among participants and its effects in the community

at large were limited. Both in the garden project in VMT and in the garden in Firth et al.'s (2011) study, participants got involved based on their interest in gardening as opposed to geographic proximity to the garden.

The second factor, the lack of communal work, seems to have negatively affected the creation of relationships in the garden project. Further, the type of independent work that predominantly took place in the garden project seems to have created conflict between gardeners. By contrast, in the VMT's previous grassroots initiatives, social cohesion was created in part because the members worked together. Cooperating on work has been found to contribute to the creation of unity in community gardens by Firth et al. (2011) and Kingsley and Townsend (2006). Both studies found that communal work such as growing food together and having work parties were important elements in the creation of community togetherness. Likewise, communal work may have contributed to the close network of farmers in the Saccsayhuaman garden. Although it seems that communal work is an important element for the creation of social cohesion, Kingsley & Townsend (2006) have also found that communal work in community gardens does not always strengthen social ties among farmers.

Finally, the third factor, lack of social activities, seems to have affected the creation of unity in the garden project. In the garden project, meetings and social activities were rare. In contrast, social cohesion in grassroots community initiatives appears to have been influenced by frequent social activities. This finding also corresponds with what Firth et al. (2011) and Kingsley and Townsend (2006) found - that social unity in community gardens was formed through the sharing of social activities such as cooking and eating.

In addition a factor I found that could play a role in the creation of social cohesion is the use of the space for socializing. In the Saccsayhuaman garden, the existence of a social area may have influenced the creation of social relationships. However, this was not the case for the Machu Picchu garden (the only other garden that has a social area). It might be the case that certain design features are promoting the socialization in Sacsayhuaman garden. In my study I did not focus on this detail particularly. However, both Firth et al. (2011) and Kingsley & Townsend (2006) found that the space and spatial features of the garden might be a catalyst for social integration.

As mentioned above, I did not find a relationship between the garden project and collective efficacy, possibly because the evidence of social cohesion (one of the conditions for collective efficacy) in the garden project was limited. Nonetheless, evidence of collective efficacy in other community grassroots initiatives exposed three possible reasons for why collective efficacy was not seen in the garden project. These three reasons were: the exclusivity of the garden, the lack of communal work, and the lack of social activities among the farmers. The three reasons are connected to social cohesion and coincide with academic studies that examine social cohesion and community gardens. More research on the relationship between community gardens and social cohesion is needed to investigate the ability of community gardens to promote collective efficacy and the link with perception of security, especially considering there are only few existing studies of this topic.

Perhaps more significant than the relationship between social cohesion and community gardens is the fact that other types of grassroots community initiatives have fostered collective efficacy. This fact could signify that collective efficacy is related to a type of community organization and the way this organization works rather than with a garden itself. The term 'community garden' includes a vast variety of garden types, and factors like the garden's governance structure, origin, aims and relation to the surrounding community are usually not taken into account in literature. More research is needed around the aforementioned organizational aspects of community gardens to be able to establish a relation between them and the increase in perception of insecurity.

6.2. Crime Prevention through Environmental Design

This section of my analysis was based on the foundational principles of the CPTED theory. For this section I used two categories: surveillance and physical modification. Regarding surveillance, I examined whether the space's new function as a community garden had affected community safety by encouraging a new pattern of public space usage, allowing different types of surveillance, or promoting informal social control that discourages illegitimate users. In this section I also considered other elements that might be affecting the participants' capacity for surveillance of the space. Next, regarding physical modification, I examined whether the maintenance of the space or its new image

may have affected community safety. I also examined how different security elements used in the garden project might influence the participant's perceptions of insecurity.

6.2.1.   Surveillance

According to the CPTED theory, creating activities in a public space makes the area safer or perceived as safer because it creates informal social control. In line with this claim, Garvin et al. (2012) argues that community gardens bring activity to the space and consequently, informal surveillance, especially to lots that were previously vacant. Contrary to this argument, my analysis revealed that surveillance created by the garden project was very limited. Even though the garden project replaced a vacant lot, the level of activity in the space did not change greatly. One reason for the limited level of activity generated by the gardens is few people farmed in the space and the farming activity fluctuates according to time of the day and season; there are times of the day and the year when the garden is empty.

Another factor that affected the potential for surveillance is the hedge that surrounds the garden project. This element not only reduces the possibility of informal social control, but it seemed to facilitate certain types of crime by serving as a hideout. Respondents reported feeling fearful of the hedges, specifically in an area that formed a long corridor. This finding is common in crime prevention. Feelings of insecurity have been traditionally associated with vegetated areas, according to Kuo and Sullivan (2001). As a response to this problem, removing vegetation has been used as a crime prevention strategy (Michael, Hull, & Zahm, 2001). However, Kuo (2001) also argues that in certain settings, such as poor urban neighbourhoods, vegetation that creates less places to hide (e.g. widely spaced, high-canopy trees) may discourage crime and fear of crime by increasing surveillance of the spaces (Kuo & Sullivan, 2001).

6.2.2.   Physical Modification

The relationship between deterioration and physical disorder (e.g. vacant lots, garbage, graffiti) in neighbourhoods and fear of crime has been well documented by authors such as Skogan and Maxfield (1981), Wilson and Kelling (1985), Warr (1990) and

Hunter (1978). In my study, I found that the empty lot, or pampón triggers fear of crime, coinciding with North American literature on this subject (Skogan and Maxfield, 1981; Wilson and Kelling, 1985; Warr, 1990; Hunter, 1978). In line with this concept is the idea that a positive neighbourhood image and a well-maintained environment prevents fear of crime and crime itself (Skogan, 1986). In North America, marginalized neighbourhoods have been beautified by creating green spaces and community gardens in previously vacant lots (Branas et al., 2011; Draus, Roddy, & McDuffie, 2013). Branas et al. (2011) looked at the results of this greening strategy in Philadelphia and found lower levels of gun-related crimes as well as lower levels of stress among the residents. Contrary to Branas et al.'s findings, I did not find evidence that the greening of the pampón reduced participants' perception of insecurity, despite the fact that respondents' perception of the space's beauty improved greatly. Moreover the greening of this previously vacant lot brought other types of crime and fear, as outlined above. There seems to be a contradiction between the fear induced by dense vegetation and greening/beautifying a vacant lot as a crime prevention strategy. This contradiction has not been addressed by authors.

Finally, I found that the change in the participants' perception of insecurity was mainly influenced by the occupation of the pampón rather than by the creation of the community garden project itself. An aspect of the transformation of the pampón that had a great impact on participants' perception of insecurity was the use of "security" elements such as the hedge. Respondents cited the garden project having taken over the gangs' space to fight as a reason for feeling greater security in the space. Participants who attributed the reduction in gang fighting to a physical modification in the space referred specifically to the enclosing of the area as the reason for this decline. In this case, the hedge and unlocked doors are limiting access to the space. In the CPTED theory, denying access to a space with the use of security elements (e.g. gates, fences, locks, electronic alarms and security patrols) is considered target hardening. Target hardening is the most controversial of the CPTED principles because it could lead to a 'fortress mentality' that would work against social control (Cozens, Saville, & Hillier, 2005). Although many community gardens use different methods for limiting access, such as fences or hedges, this aspect has also not been addressed in literature.

6.3. Conclusion

In conclusion, my analysis of the garden project in VMT differed from the claims about community gardens improving perception of security in neighbourhoods. First, I did not find evidence of collective efficacy in relation to the garden project. Through the analysis of collective efficacy I found that social cohesion was not always a product of community gardens. Although these findings coincide with existing literature about social cohesion and gardens, more research is needed to understand the relationship between community gardens and social cohesion. However, more importantly, I found that the increase of perception of security might have a closer link with other types of community initiatives and the way these organizations work rather than with a garden itself. Second, with regards to environmental modification, I found that the effect of the garden project has more to do with the transformation of previously problematic vacant land than with the garden itself. In fact, my analysis also showed that some aspects of the vegetation in the garden project seem to promote fear of crime, posing a contradiction between the beautification of vacant lots through community gardens and the elimination of plants as a crime prevention strategy.

Finally, my analysis also revealed that the fencing of the empty lot is seen as a solution to the problem of the pampón, a large vacant space that attracts unwanted activities including gang fighting. Although this is a small study, this last finding is particularly relevant because it seems to point to a phenomenon that is happening throughout Lima, which is the gating of public space. In Lima, gated communities can be found in neighbourhoods of all socio-economic levels, including informal settlements like VMT (Plöger, 2006), as opposed to other cities where gated communities predominate in higher income areas. In fact, gated communities in marginal areas in Lima represent almost a quarter of all gated communities of the city (Ploger, 2006). Lima is becoming a more segregated city in the face of the high perception of insecurity and the deficient response of the authorities. I found that "open" or public spaces seem to be seen as "bad", and people would rather have a closed off space than a public space. However, the strategy of closing off public spaces might create a false impression of security because unwanted activities (e.g. gang fights) are only displaced. The gating of public spaces also creates a fortress mentality which acts against informal social control and contributes to a

more segregated city. More research is needed in this area to understand how to deal with the effects of this gating phenomenon.

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Appendix.

Sample Interview Questions

How long have you lived in this neighbourhood? How do you feel living in your neighbourhood? Have your feelings about your neighbourhood changed? How would you describe your community?

Do you like living here? Do you have close friends? Do you know many people in your neighbourhood?

What do you think about the community garden in your neighbourhood? Do you like working there?

What aspects of the garden do you like and dislike? Is the garden a place you feel relaxed?

Do you think somebody dislikes this space? If you do, why do you think they do and who do you think they are?

How often do you go to the community garden? When you go there, how do you get there? Do you usually go on your own or accompanied by family or friends?

How about your route, do you always take the same route? Do you always come and go at the same time of the day?

Can you tell me how the area where the garden is now was before the community garden was created? Can you describe it? Can you tell me what aspects of this area have changed since the creation of the garden?

Did you use to walk around the area then? How about other people that used to frequented the area before the garden was created?

Tell me about your work in the garden, how many people work in the garden when you are working there? Do you get along with the other gardeners? Do you work together?

Did you know the other gardeners from before or you met them here in the garden? Are they all from your neighbourhood? Do you only see them when you are working in the garden together?

When you are working in the garden, do you see people usually walking around the garden? Who are these people? What are they doing? Do you know them?

Before you started working in the garden, what was your daily routine when you were not in your house? What places in the neighbourhood did you spend most of your time then? How would you get to those places? What were your routes to get there? Did you go to those places on your own or accompanied by friends or family?

How about the times of the day you used to go out?

Is there anything else you want to tell me?