Safe Streets, Nice Neighbourhood?

Analyzing the relationships and differences in the determinants of the perceived safety and reputation of a neighbourhood

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1. Introduction

Liveability and safety within urban neighbourhoods is ever declining. At least, that's what one could conclude when listening to the narratives of politicians as portrayed by media. It seems if politicians are ever more concerned with the degenerating status of urban neighbourhoods, and the devastating effects this has for the residents within such neighbourhoods. Right wing politicians are quick to place the blame at the large proportion of ethnic minorities living within these neighbourhoods, while left wing politicians claim the low socio-economic status of neighbourhood inhabitants to be the factor that causes these neighbourhood problems. One way or the other, restoring liveability and safety within the neighbourhood seems to be the new mantra within urban policies.

This increased interest of politicians is most strikingly resembled by the debate about the so called 'problem neighbourhoods' ('*probleemwijken*'), which has received significant attention within Dutch politics. These 'problem neighbourhoods' are 40 designated neighbourhoods in cities in the Netherlands that fall behind concerning for instance employment, income and education levels of the inhabitants, when compared to other neighbourhoods within the same city. Crime, vice, disorder and disturbance are believed to be at the order of things in these neighbourhoods, which resulted in increased political and media attention for these neighbourhoods. Calling these neighbourhoods 'problem neighbourhoods' was however found to not positively influence the already damaged image of these neighbourhoods, and a change of name was suggested (they are now called 'Vogelaarwijken', named after the responsible minister). The reasoning however stayed the same, the neighbourhoods fall behind on certain characteristics, and therefore liveability, safety, and the status of these neighbourhoods are low.

What seems evident from this example is that neighbourhoods with a low perceived safety and a bad reputation suffer from this negative image. Unfortunately, neighbourhoods with a low perceived safety and a bad image or reputation are present throughout the western world. As Waquant (2007) states: "In every metropolis of the First World, one or more towns, districts or concentrations of public housing are publicly known and recognized as those urban hellholes in which violence, vice, and dereliction are the order of things" (p. 67). Although these "urban hellholes" might be relatively new in a European context (for example the '*banlieues*' in France, or the '*probleemwijken*' in the Netherlands), they have a more historical context in the United Sates. These 'hellholes', also known as ghetto's, have been a classical field of study for urban researchers, dating back to the early works of the 'Chigagoschool' (Wittebrood and van Dijk, 2007). It is therefore not surprising that academics have shown profound interest in the liveability, security, and the status of a neighbourhood in relation to neighbourhood problems (e.g. Bursik and Grasmick, 1993; Austin, Furr, and Spine, 2002; Wittebrood and van Dijk, 2007).

However, not only politicians, policy makers, and academics are increasingly concentrating on such problems within the neighbourhood. Media have devoted significant attention on incidents of crime and safety within neighbourhoods and the relation to neighbourhood problems (see for example, Nauta, Tulner, and van Soomeren, 2001). Moreover, also dwelling seekers seem to put more emphasis on images of the safety of the neighbourhood when choosing a new residential location. This is best exemplified by the rise of gated communities all around the globe. Research has shown that many of the inhabitants moving to these gated communities chose these locations because of the perceived safety of such an area, or because they felt unsafe in the area they were previously living in (Low, 2004).

1.1 Studying Fear, Safety, and Reputations

As the above has made clear, the relationship between the perceived safety and reputation of the neighbourhood, and problems within the neighbourhood has become more important for politicians

and policy makers. Furthermore, scientific interest in determinants and effects of such subjective neighbourhood characteristics has also risen in recent years (e.g. Austin et al., 2002; Wassenberg, 2004; Sampon and Raudenbusch, 2004; Permentier, van Ham, and Bolt, 2008). Subjective neighbourhood characteristics have become more important in urban research as "residents perceptions of what their community and other communities are like are as important to urban theory as the information on objective characteristics on which most urban research is based" (Logan and Colver, 1983; 432; as cited by Lee et al., 1994). As both the perceived safety and perceived reputation of a neighbourhood are subjective neighbourhood characteristics, interest in these two neighbourhood characteristics has risen accordingly.

Research on perceptions of safety, and especially on fear of crime, is however not completely new as it follows a long scientific tradition (e.g. LaGrange and Ferraro, 1987; Hough, 1995; Ditton et al., 1999; Pain, 2001; Farral and Lee, 2009). Research on fear of crime has mostly focused on differences in fear of crime based on personal characteristics (e.g. Smith and Torstensson, 1997; Metha and Bondi; 1999; Day, 2001 Pain, 2001) the effect of fear of crime on spatial behaviour (e.g. Pain, 1997; Koskela 1999) and differences in perceptions of safety on a geographical scale (Lavrakas, 1982; Taylor and Hale, 1986; Moeller, 1989; Mulvey, 2002). However, researchers are nowadays not merely interested in fear of crime, but have become more interested in how the perceived safety of an area is experienced and constructed (see for example Sparks, Girling and Loader, 2001; Austin et al., 2002). Therefore, not only fear of crime and crime rates, but also a neighbourhoods' perceived safety is receiving more attention.

Next, scientific interest in the reputations of neighbourhoods has largely increased in the last decade (e.g. Tsfati and Cohen, 2003; Wassenberg, 2004; Permentier, van Ham, and Bolt, 2007; 2009; Niedomysl, 2008; Skifter Andersen, 2008). Studies investigating this topic have for example focused on behavioural responses (Permentier et al., 2007) intentions to leave the neighbourhood (Skifter Andersen, 2008; Permentier et al., 2009) stated neighbourhood preferences (Niedomysl, 2008) and 'redlining' by insurance companies and banks (Aalbers, 2005), in relation to neighbourhood reputations. Reputations have received increasing academic interest as they are believed to have profound effects for developments within the neighbourhood, as for the residents (e.g. Permentier et al., 2007). As Wassenberg (2004) states: "[a] reputation is an important characteristic to understand the developments and the decay of neighbourhoods" (p. 282).

The interest in both these subjective neighbourhood characteristics does not only stem from a scientific point of view. Research has shown subjective neighbourhood characteristics to influence mobility behaviour (e.g. Lee et al., 1994; Lu, 1998), neighbourhood preferences (Niedomysl, 2008; Wang and Li, 2004; Hong and Farley, 2008) and intentions to leave the neighbourhood (Permentier, 2009). Through these processes, subjective neighbourhood characteristics can influence the in- and outflow of residents to the neighbourhood, which can have profound effects for the development of these neighbourhoods. As a result, policy makers and academics are also more concerned with measurements to improve the perceived safety and reputation of a neighbourhood, through for example police surveillance (e.g. Bennet, 1991; Enders, Jennet, and Tulloch, 2009) the installation of Closed Circuit Television (CCTV) (Fyfe and Bannister, 1996; Ditton, 2000; Welsh and Farrington, 2002) or place marketing to improve the image of neighbourhoods (e.g. Wassenberg, 2004).

As the development of a neighbourhood could thus be influenced by perceptions of the safety and reputation of the neighbourhood, portraying a neighbourhood as a 'safe' and 'nice' place to live seems to be ever more important. As Clark and colleagues (2006) state: "Obviously, people want to live in 'good' neighbourhoods and to have their children grow up in safe environments" (p. 326). However, the question arises, what is a 'good' or 'safe' neighbourhood? What determinants are of influence on these perceptions? Are individual characteristics of effect on these perceptions, or are they merely based on neighbourhood characteristics? And how about images and representations of crime and

disorder within the neighbourhood? Do they influence these perceptions of safety and the reputation of the neighbourhood?

'Safe' and 'good' neighbourhoods: Is it all ethnicity?

Previous research has focused on the determinants of the perceived safety and reputation of the neighbourhood in order to answer such questions, although with relation to safety the emphasis has mostly been on feelings of fear of crime. Academics found the fear of crime to be influenced by personal characteristics (e.g. Smith, 1988; Hough, 1995; Smith and Torstensson 1997; Koskela, 1999: Day, 2001; Pain, 2001), objective neighbourhood characteristics (Mulvey, 2002; Williams and Kitchen, 2010) and some forms of subjective neighbourhood characteristics (e.g. Wilson and Kelling 1982). The perceived reputation has been revealed to be mostly related to information on neighbourhoods about objective neighbourhood characteristics (Permentier et al., 2007; 2010). However, far and foremost, both the perceived safety as the perceived reputation of a neighbourhood have been linked to the ethnic build up of a neighbourhood (Bursik and Grasmick, 1993; Hough, 1995; Lee, 2007; Eitle and Taylor, 2008; Hopkins and Smith, 2008; Jackson, 2009; Permentier et al., 2010).

Academics have therefore devoted a vast amount of attention to the relation between the ethnic build up and the perceived safety and reputation of a neighbourhood. Influential theories in this field are for example the social disorganisation theory (Shaw and McKay, 1969) which states the ethnic heterogeneity within the neighbourhood to influence the perceived safety; the racial proxy thesis (Harris, 1999), which states minority groups to be associated with crime, vice, and disorder therefore causing a negative effect on the reputation and safety of the neighbourhood; and the racial threat theory (Eitle and Taylor, 2008) which claims ethnic minority groups to be feared because they are 'different', therefore negatively influencing perceptions of safety within the neighbourhood. Although these theories all give different explanations, they all underline the importance of the ethnic build up of a neighbourhood on the perceived safety and reputation.

1.2 Research Aim and Questions

As a result of the large emphasis on the ethnic build up as a determinant of the perceived safety and reputation of a neighbourhood, other determinants of both subjective neighbourhood characteristic have received less attention. Furthermore, the emphasis in research on determinants of feelings of safety and security has mostly been related to fear of crime (e.g. Hough, 1995; Smith and Torstensson 1997; Koskela, 1999; Pain, 2001; Mulvey, 2002). Although related, fear of crime and perceived safety are different concepts (this issue will be further elaborated on in the chapter 2). Research on the determinants of the perceived safety of the neighbourhood has however been scarce or focused on a single determinant (see for example, Austin et al., 2002; Williams and Kitchen, 2010). Therefore, more comprehensive knowledge about the determinants of the perceived safety of a neighbourhood is needed.

Although determinants of the perceived reputation have been specifically studied by academics in recent years (e.g. Permentier et al., 2008; 2010), some gaps in the knowledge remain. Academics have for example suggested that media attention could influence the perceived reputation of a neighbourhood (e.g. Wassenberg, 2004; Permentier et al., 2008), but have not empirically tested this relationship. Furthermore, although research has focused on the relation between neighbourhood satisfaction and the perceived reputation (Permentier et al., 2010), other subjective neighbourhood characteristics have been underrepresented in research on reputations. This is surprising, as a reputation "refers to the meaning and esteem that residents and other involved parties attribute to a neighbourhood" (Hortulanus, 1995; as quoted by Permentier et al, 2008; 38) and these meanings could very well be influenced by subjective neighbourhood characteristics.

Furthermore, although both the perceived safety and reputation of a neighbourhood represent a certain image of a neighbourhood, research has not investigated the similarities, differences, and relationship between these two subjective neighbourhood characteristics. Knowledge on this relationship could provide useful insights in the influence both images have on each other. Research has for example shown crime rates to influence the perceived reputation of the neighbourhood (Permentier et al., 2007; 2010), but never investigated the relationship between perceptions of neighbourhood safety and its reputation. Using the perceived safety and reputation of a neighbourhood as determinants of each other could therefore reveal how these two characteristics are related, and shed new light on the influence of other determinants of both subjective neighbourhood characteristics. Therefore, by simultaneously studying the determinants and relationship of both subjective neighbourhood characteristics, this research could yield further useful information on the determinants of the perceived safety and reputation of a neighbourhood.

This present research will try to obtain such information and the main aim of this research is therefore:

To investigate the similarities and differences in the determinants of perceived safety and the perceived reputation of a neighbourhood, and to establish the effect of these two subjective neighbourhood characteristics on each other.

This research is thus set out to analyse the determinants of the perceived safety and reputation of a neighbourhood. Academics have discussed either determinants of fear of crime or levels of safety (e.g. Ferraro and LaGrange, 1987; Hough, 1995; Koskela, 1999; Pain, 2001; Austin et al., 2002; Vanderveen, 2006) or the perceived reputation within the neighbourhood (e.g. Tsfati and Cohen, 2003; Wassenberg, 2004; Niedomysl, 2008; Skifter Andersen, 2008 Permentier et al., 2009). However, a comprehensive analyses of the relationship, differences and similarities between determinants of the perceived safety and reputation of a neighbourhood has until now not been performed. This present research will therefore discuss this relationship and will therefore try to answer the following question:

What are the determinants of the perceived safety and perceived reputation of a neighbourhood, and what is the effect of both characteristics on each other?

A better understanding of the relationship between the perceived safety and reputation of a neighbourhood could thus provide further insights in the determinants of both subjective neighbourhood characteristics. Furthermore, low levels of perceived safety and reputation of a neighbourhood could "undermine a place's competitiveness and attractiveness and inhibit the successful implementation of broader policy agendas" (Raco, 2007; 309). Therefore, knowledge about the determinants of these subjective neighbourhood characteristics is also valuable in relation to urban policy and processes of neighbourhood decline, as such policies could benefit from more information on the determinants of the perceived safety and reputation. The analysis presented in this present research is therefore valuable for urban policy, as well as from a scientific point of view.

To answer this main research question, this question is divided into four smaller research questions that will be answered within this research. Firstly, the determinants of the perceived safety and reputation of a neighbourhood will be investigated. As stated, this present research will focus on a mixture of determinants, investigating the effect of individual characteristics, objective and subjective neighbourhood characteristics, and media attention and crime statistics. The questions that will therefore be tried to answered are:

What are the determinants of the perceived safety of a neighbourhood?

What are the determinants of the perceived reputation of a neighbourhood?

When these two research questions have been answered and discussed, it would be fairly easy to indicate the differences and similarities in the determinants of both subjective neighbourhood characteristics and answer the third research question:

What are the differences and similarities in the determinants of the perceived safety and reputation of a neighbourhood and how can these differences be explained.

Finally, this research will turn to the relationship between both studied neighbourhood characteristics. In order to investigate their mutual influence, the perceived safety and reputation of the neighbourhood will be used as determinants of each other. This could not only reveal the independent effects of both studied neighbourhood characteristics on each other, but also provide further information on the effect of other determinants of both the perceived safety and reputation of a neighbourhood. The final research question that is therefore answered is:

What is the direct effect of the perceived safety of a neighbourhood on its perceived reputation, and what is the direct effect of the perceived reputation of a neighbourhood on its perceived safety.

1.3 Outline of this Study

To retrieve which determinants are influential on the perceived safety and reputation of a neighbourhood, linear regression models will be used for each of these two studied neighbourhood characteristics. However, this research will start with the formulation of hypothesis and expectations in the following chapter. This second chapter will give definitions of both studied neighbourhood characteristics, and discuss which determinants can be expected to be of influence based on previous research on (predominantly) fear of crime and perceptions of neighbourhood safety and reputations. In chapter 3, the data and methodology used in this present research will be explained, before turning to the results in chapter 4. Finally, the research questions that have been posed in this present research and the implications for (urban) policy and further research will be discussed in the final concluding chapter of this research.

2. What makes a Neighbourhood 'Safe' and 'Nice'?

Research has devoted significant attention on determinants of the perceived safety and reputation of a neighbourhood independently. The following section will discuss research focusing on one of these two subjective neighbourhood characteristics, in order to formulate expectations and hypothesis that will be tested in this present research. Firstly, this section will define the perceived safety and perceived reputation of the neighbourhood. Secondly, determinants of the perceived safety and reputation will be discussed, focusing on individual characteristics, selection effects, and the influence of objective and subjective neighbourhood characteristics on the perceived safety and reputation of the neighbourhood. Next, the presumed relationship between both studied neighbourhood characteristics will be elaborated on. Afterwards, the influence of representations of neighbourhoods by media will be discussed, in combination with the influence of crime statistics. Finally, a short elaboration on the use of Closed Circuit Television cameras in order to improve the perceived safety of a neighbourhood will be discussed, as this measurement is a heavily debated issue within academic literature. This section will end with a conceptual model in which the relationships that are expected within this present research will be graphically displayed.

2.1 Defining the Perceived Safety of a Neighbourhood

This research discusses the relationship, differences and similarities between the perceived safety and perceived reputation of the neighbourhood. In order to discuss these two concepts, clear definitions have to be provided. Defining both concepts is however not straightforward. Especially the perceived safety has proven to be a difficult concept for researchers to grasp, as it is closely related to anxiety, security, disorder, and fear of crime. Therefore, in order to define perceived safety, it is useful to firstly discuss the broader concept of fear of crime.

2.1.1 Fear of crime

Research on the causes and effects of fear of crime has been extensive (e.g. Smith and Torstensson, 1997; Metha and Bondi; 1999; Day, 2001 Pain, 2001). "This is probably the main legacy of endless, and endlessly repeated, notational crime surveys which have consistently identified it as a social problem of striking dimensions" (Ditton, Bannister, Gilchrist, and Farrall, 1999). Not only academics, but also policy makers, politicians, media, and local authorities have devoted significant attention to fear of crime. Policy makers, local authorities and politicians have shown profound interest in how fear of crime is perceived by citizens on multiple geographical scales, through the large amount of crime surveys held on different geographical scales (e.g. the British Crime Survey, Buurtmonitor Gemeente Utrecht). Furthermore, media seem to be particularly interested in all sorts of crime, and "unusual and sensational crime stories occupy a disproportionate amount of time and space in both local and national news" (Wallace, 2008; 396), as sensational topics provide good ratings and therefore remain of interest for media.

Much of the early research on fear of crime evolved around methodologies on how to measure fear of crime which caused much debate (e.g. Ferraro and LaGrange, 1987; Ditton et al., 1999). Problems mostly arose because of the multiple expressions that are sometimes interchangeably used to describe different concepts. In research on fear of crime, concepts such as safety, security, disorder, and crime are all used with either the same or different meanings. As a result: "[v]arious of the projects which had explored the fear or crime ended on notes which suggested that the fear of crime was a confused and congested topic". (Farral and Lee, 2009; 2)

These multiple divergent meanings have made it hard to define fear of crime.. When researching fear of crime, distinctions between risk, anxiety, worries and concerns about crime are hard to make and are often labelled "under the common term fear" (Bursik and Grasmick, 1993; 91). Taylor and Hale

(1986) state fear of crime to be: "the emotional dimension of people's response to crime" (p.153) but already acknowledge a difference between 'fear' and 'worries' about crime. Hough (1995) defines fear of crime to be: "anxieties and worries about becoming a victim of crime" (p.1). However, he also establishes a distinction between perceptions of risk and worry, and states that: "worry and perceptions of risk are conceptually distinct" (Hough, 1995; 2).

Although researchers use different concepts, most of the early definitions of fear of crime evolved around anxiety and other emotional responses related to the chance of becoming a victim of crime. This is also clearly reflected in the methods used to measure fear of crime, which operationalisation was often reflected by the question 'How safe would you feel walking alone at night?' (see for example Hough, 1995). More recently however, academics have defined fear of crime as a broader emotional response than only worrying of becoming a victim, in order to more clearly emphasise the subjective nature of the concept. As Lee (2009) argues:

> When we discuss fear of crime it is unlike discussing material phenomena such as buildings, roads and bridges. (...) Nor is it much like discussions of offence rates, mortality rates, literacy and numeracy skills and most other social scientific objects of knowledge. (...) fear of crime is by nature and *was* by definition – at least in Skogan's terms – *subjective.* It is an experience, or set of experiences, that are intensely individual. (p. 33, italics in original)

Lee (2009) clearly captures the interpretation of more recent research on fear of crime, which no longer solely focus on becoming a victim or not, but increasingly defines fear of crime to be a subjective emotional response to different situations. Furthermore, the definition of fear of crime is highly discipline-specific. Researchers from varying fields of studies will define the fear of crime differently, depending on their field of study. For example psychologists will focus on the emotional side of being afraid of crime and how this affects emotions. Geographers on the other hand, are more concerned with the social and spatial context and effects of fear of crime, which will in turn influence their conceptualization of fear of crime. The definition of fear of crime has therefore also become discipline specific.

2.1.2 From fear of crime to perceived safety

As the above makes clear, defining fear of crime has proven to be all but easy. A clear and uniform definition of what exactly fear of crime is, is therefore hard to establish. Moreover, this research deals with *perceived safety* within the neighbourhood instead of *fear of crime* within the neighbourhood. Although fear of crime is of influence on, it does not equal perceived safety. As stated, fear of crime has been mostly related to the chance of becoming a victim of crime and has a high tendency to be biased towards criminal offences. Perceived safety however, also deals with how individual and collective perceptions of whom or what to fear influence one's perception of risk. As a result, perceived safety is a more comprehensive concept dealing with feelings and experiences of crime, safety and security, and further grasps the subjective nature of this concept. Therefore, this research will discuss the perceived safety of a neighbourhood, instead of the fear of crime within a neighbourhood.

Although fear of crime and perceived safety are separate concepts, they are also interrelated. As Hough (1995) states: "People's perceptions of the risks they run are closely correlated to their fear of crime" (p. viii). The fear of crime people experience can thus influence perception of risk and safety, and hence the perceived safety of a specific area. However, this relationship might also exist vice versa, as the level of perceived safety can also influence one's fear of crime. As Low (2004) states:

> "Another dimension of fear of crime is the sense of vulnerability, in which social or physical characteristics lead one to feel more or less afraid. (…) Because there are two psychological components of fear of crime – cognitive (risk perception), and emotional (feeling afraid) – as well as various kinds of crime, researchers have had a difficult time clarifying the specifics of the crime-fear relationship, but generally agree there is a loose relationship that varies in response to the particular circumstances." (p.119)

Thus, one's perception of risk and safety influences one's fear of crime and this perception of risk can vary according to certain circumstances (for example, time of the day or location). Furthermore, one's fear of crime can influence one's perception of risk and thus one's perceived safety. The two concepts are thus different, but are also interrelated.

2.1.3 How do we define perceived safety?

The question however arises how to define the concept perceived safety? A helpful hand is provided by Hille Koskela, who has extensively researched fear of crime and perceptions of safety (e.g. Koskela, 1999; 2009). In her book *The Spiral of Fear* (2009) she defines five different definitions of security. Security can be seen as a concept that is synonymous with perceived safety. High levels of security correlate with high levels of perceived safety, as well as insecurity correlates with a low level of perceived safety. Therefore, these definitions can be used as guidance to further define perceived safety.

Koskela (2009) distinguishes five definitions of security. Firstly, there is calculated security which is measured with the use of crime statistics. This is a definition of security which is mostly used by politicians, policy makers and law enforcing authorities. Secondly, security can be experienced. Security in this definition is seen as an individual feeling which is subjectively experienced. Thirdly, security can be structural. This means that for some demographic groups (e.g. women) security (or lack of it) is a 'constant' issue that is a structural part of day to day live. Fourthly, security is social. What or whom to fear and what situations are mended to be experienced as dangerous are socially constructed or produced. Parents, peers, relatives and authorities are all of influence on the construction of fear for certain events, groups, people, and situations. Finally, security can be imaginary. This imagined security is largely the effect of media attention. Reports on crime or certain (violent) events heavily contribute to how certain groups, places and situations are imagined to be safe or not.

Koskela (2009) thus defines security to have multiple dimensions or definitions. This almost comprehensive list (one could for example argue that security also has a biological and psychological definition) can also be used to define perceived safety. Just as with security, the perceived safety in a neighbourhood is dependable on (a mix of) all these dimensions. The perceived safety is calculated, experienced, structural social and imagined. Perceived safety is also dependable on individual beliefs and feelings of security. Perceived safety is influenced by feelings of fear of crime. By past experiences with crime, either by oneself or by peers, family, neighbours etcetera. Perceived safety can also depend on security measurements. Safety locks, CCTV, police presence can make one feel safer, well another might experience the opposite (see for example Ditton, 2000; Welsh and Farrington; 2002). Perceived safety is individual, but can also be measured for groups, events, times and places. Perceived safety is thus 'multi-multidimensional'. Therefore, the perceived safety of a neighbourhood can be defined as:

A subjective judgment experienced and measured on multiple dimensions, of the security within a neighbourhood.

2.2 Defining the Perceived Reputation of a Neighbourhood

Next to the perceived safety, this study will focus on the determinants of the perceived reputation of a neighbourhood. Scientific interest in the reputations of neighbourhoods has largely increased in the last decade (e.g. Tsfati and Cohen, 2003; Wassenberg, 2004; Permentier et al., 2007; 2009; Niedomysl, 2008; Skifter Andersen, 2008). Furthermore, place marketers, politicians, and policy makers seem to become more aware of the importance of the perceived reputation of a neighbourhood. Policy makers seem to be aware that having a good (or bad) reputation can have significant effects for a neighbourhood. Therefore, in order to successfully regenerate deprived

neighbourhoods, strategies to improve reputations of neighbourhoods are believed to be necessary in order to reduce the stigma non-residents have of a certain neighbourhood (Wassenberg, 2004).

2.2.1 Images, stigmas and reputations

Although interest in the effects of the perceived reputation of a neighbourhood has only recently developed, the concept itself has been discussed for decades. Firey already acknowledged in 1945 that an area can act as: "a symbol for certain cultural values that have become associated with it" (p. 140, as quoted by Permentier et al., 2007) and was therefore one of the first academics to discuss the concept of reputation. More recently, researchers use different concepts like symbol, stigma or image when discussing the reputation of a neighbourhood, while these concepts in fact have different meanings (e.g. Wassenberg, 2004). A stigma is defined as "as a bad image or reputation" (Wassenberg, 2004; 290) and therefore has a negative connotation. Researchers more often use the concept of an image, as an image or reputation is more neutral (Permentier, 2009). An image is defined as: "the set of meanings by which an object is known and through which people describe, remember and relate to it" (Skifter Andersen, 2008; 84). However, an image is an individual view of a certain place, person, or product, not a collective view (Permentier, 2009). "A reputation is an image shared by a significant number of individuals" (ibid; 17). Thus, a reputation is a more collective and neutral concept, and is therefore used in this present research.

The perceived reputation is thus a "collective shared view" (p. 17) which reflects the status of a neighbourhood and/or its residents (Permentier, 2009). Furthermore, the reputation of a neighbourhood is also based upon a place within the city's hierarchy. This research will use the definition of a reputation by Hortulanus (1995) (in line with Permentier et al., 2007 ; 2009) because "it incorporates most of the previously discussed elements" (Permentier, 2009; 17). The perceived reputation of a neighbourhood is therefore defined as:

"the meaning and esteem that residents and other involved parties attribute to a neighbourhood. Reputation also refers to the relatively stable image a neighbourhood has among city residents and to its place in the urban neighbourhood hierarchy" (Hortulanus, 1995, as translated by Permentier, 2009; 17)

2.2.2 The internal and external reputation

Although the perceived reputation reflects a collective shared view of a neighbourhood, this collective shared view can differ between residents and non-residents. The reputation of a neighbourhood by its residents is called an internal reputation, while that by non-residents is called an external reputation. Research has clearly shown that these two reputations can significantly differ, while assessing the reputation of the same neighbourhood, as the internal reputation of a neighbourhood is often rated higher than the external reputation (Permentier et al., 2008). This is mostly the result of selection effects. Residents living in a neighbourhood have often deliberately selected this neighbourhood (either by preference or lack of choice). Because of this choice, they are prone to give higher ratings to all sorts of subjective neighbourhood characteristics, including the reputation (ibid).

Furthermore, the internal reputation is based on more detailed information about the physical and social attributes of a neighbourhood (Permentier et al., 2008). Residents living in the neighbourhood are more able to make a nuanced assessment of the status of the physical and social attributes of a neighbourhood, which are an important factor in explaining the reputation of a neighbourhood (as will be dealt with further on). Therefore, they can make a more detailed assessment of all sort conditions within the neighbourhood, which will lead to a higher rating of the reputation. On the other hand, the external reputation by non-residents is based on less, and mostly one-sided information about the status of a certain neighbourhood. Therefore, non-residents create a different image of a neighbourhood consisting "of simplified images of neighbourhoods, which are shaped by drawing sharp boundaries and exaggerated differences between neighbourhoods" (Permentier et al., 2009; 39). These simplified images are often based on reports on negative developments and characteristics

of a neighbourhood, therefore causing the reputation of the neighbourhood to receive a lower rating. Therefore, the internal and external reputation of a neighbourhood can significantly differ (Permentier et al., 2008).

2.3 Determinants of the Perceived Safety and Reputation

The perceived safety and reputation of a neighbourhood are influenced by multiple determinants (e.g. Austin et al., 2002; Permentier et al., 2007; 2009; Skifter Andersen, 2008; Williams and Kithcen 2010). The determinants of the two concepts are dealt with in the following sub-sections through elaboration on past research and theories that have discussed these determinants. Each sub-section will discuss a (or multiple) related determinant(s) of the perceived safety and perceived reputation of a neighbourhood. In each sub-section the perceived safety will be discussed first, followed by the perceived reputation. With the use of this approach, similarities and differences between the two concepts will already start to emerge.

2.3.1 Individual and household characteristics

The perceived safety and reputation of a neighbourhood are believed to be dependent on individual and household characteristics. Research studying fear of crime and safety, showed that the fear of crime heavily differs for individual and socio-economic determinants (e.g. Smith, 1988; Hough, 1995; Smith and Torstensson 1997; Koskela, 1999: Day, 2001; Pain, 2001). These differences have also been found (although to a lesser extent) in studies focusing on the reputation of a neighbourhood (Permentier et al., 2008). Therefore, it can be expected that the perceived safety and reputation of a neighbourhood will differ according to individual and household characteristics, as the following section will discuss.

Gender and safety

Far and foremost, fear of crime and levels of perceived safety are found to significantly differ per gender (Smith, 1988; Brooks Gardner, 1990; Hough, 1995; Smith and Torstensson 1997; Koskela, 1999; Pain, 1997; 2001; Day, 2001). Many academics have argued that women are more worried about rape, mugging and burglary and as a consequence women are found to feel less safe than men (e.g. Smith, 1988; Brooks Gardner, 1990; Hough, 1995; Pain, 2001; Day, 2001; Mulvey, 2002). Some academics have argued these high levels of fear by women to be "irrational" (Hough and Mayhew 1983; as quoted by Pain, 1997). Women's heightened fear is labelled as irrational because statistically women have the least chance of being victimized, while they do express the most fear of becoming a victim. Furthermore, it has been argued that women's fear is spatially mismatched, as women experience the most fear within public space, but have the most chance of being victimized within private spaces (e.g. Koskela, 1997; Pain, 2001).

The irrationality of women's fear is however heavily contested. Scholars give many explanations why women's heightened feelings of fear are far from irrational (see for example Koskela, 1997; Pain, 1997; Smith and Torstensson, 1997) Women's feelings of fear are largely influenced by their fear for (sexual) violence by males, but are also a result of complex power relations, and masculine and feminine identity constructions (e.g. Pain 1997; Koskela, 1999; Day, 2001). Koskela (1999) argues that women's heightened feelings of fear are: "a consequence of women's unequal status, but it also contributes to perpetuating gendered inequalities" (p.111). These inequalities and gendered power relations make women more fearful, although they might not be likely to become a victim.

However, irrational or not, or rooted in complex and gendered power relations, it cannot be denied that multiple studies have found women to be more anxious about crime and feel less safe than men (Smith, 1988; Brooks Gardner, 1990; Hough, 1995; Smith and Torstensson, 1997; Pain, 2001; Day, 2001). As Smith and Torstensson state (1997): "Women may not only be more sensitive to risk than

men are, but they perceive some places as risky which men do not." (p. 628). This heightened sensitivity for risks results in what Smith and Torstensson (1997) label "ecological vulnerability" (p. 629). This "ecological vulnerability" results in women feeling more vulnerable in their own living environment. As a result of this vulnerability women do not only perceive more risk within public spaces but also: "perceive more risk in their neighbourhoods and report fear more often" (p. 629).

As becomes clear, women express more fear of crime in general, and perceive less safety in public space and thus even within the own neighbourhood. It can therefore be expected that women give a lower rating to the perceived safety of a neighbourhood than men do. This relationship is tested and it is hypothesized that:

Gender will have a significant effect on the perceived safety of a neighbourhood and women will perceive less safety within the neighbourhood than men.

Gender and reputation

Although much less studied, the perceived reputation of a neighbourhood can also differ per gender. In a study performed in Sweden on the value of place attributes in stated residential preferences, Niedomysl (2008) found that women place more emphasis on the reputation of a neighbourhood than men (Niedomysl, 2008). Other research has however found differing results. According to Permentier et al. (2010): "Kearns and colleagues (2000) found that men are more concerned to derive status from their home than women" (p.72), and thus men are believed to put more importance in the perceived reputation of their neighbourhood. However, the study by Permentier et al. (2010) found no significant effect of gender on the perceived reputation of a neighbourhood.

Although research has found no relationship, this research expects gender to have a significant effect on the perceived reputation of a neighbourhood. Men are believed to put more emphasis on the status of their home (Permentier, 2010). Therefore, they will be more concerned about the perceived reputation of the neighbourhood, but as a result also be more critical. As they find it important to live in a neighbourhood that suits their reputation, they will be more critical about this reputation, and thus less likely to give a high reputation to their own or other neighbourhoods. Therefore, women will give a higher rating to the reputation of a neighbourhood and hence:

Gender will have a significant effect on the perceived reputation of a neighbourhood and women will perceive a higher level of the reputation of a neighbourhood than men.

Age and safety

Researchers have frequently found an effect of age on differences in perceived safety, but with quite differing results (e.g. LaGrange and Ferraro, 1987; Findlay and Rogerson, 1993; Hough, 1995; Ditton, 2000). For example, Hough (1995) and Enders et al. (2009) found that elderly are in general more afraid of crime and perceive more risks than younger age groups. Contrary, Ditton (2000) found that younger people were found to be more fearful. Moreover, Pain (1997) found that with respect to fear within public space, young women are significantly more concerned than older women. It is therefore fare to state that: "[i]ssues of age have been the most contested area in the literature on social identity, fear of crime and use of public space." (Pain, 2001; 907).

As with gender: "[t]he relationship between age and fear of crime is seemingly paradoxical because the elderly tend to be least often victimized" (LaGrange and Ferraro, 1987; 372). The mixed results and the paradox between age and fear have however partly been resolved in the last decade. According to Pain (2001): "There is now widespread agreement that the issue has been misrepresented and that older people are not in general more fearful than anyone else." (p. 908). Methodological considerations are held to blame for the different results, as well as social

constructions within society that label elderly as "weak and dependent" (p. 908) and vulnerable (Pain, 2001).

However, there might be more explanations for these mixed results. As Pain (2001) argues, the elderly are more experienced and thus are able to make better judgments about where risks could be present. They are therefore more aware of 'risky' places and situations and avoid such circumstances. Furthermore, individuals of older age show more 'natural' risk avoiding behaviour, as they are significantly less exposed to risky situations compared to younger people. Individuals of younger age are more prone to be at places at times which are perceived to be less safe (for example, in city centres at night with big crowds). Thus, because older age groups show more risk avoidance behaviour, and are less likely to be in risky environments than younger age groups, they could perceive more safety in general, but feel less safe within certain circumstances.

As individuals of older age perceive more safety in general, and are less likely to be out on the streets in their neighbourhood (for example at night), they are less exposed to risky situations in the neighbourhood. It can therefore be expected that individuals of older age perceive more safety within the neighbourhood. Therefore it is hypothesized that:

Age has a significant positive effect on the perceived safety of a neighbourhood.

Age and reputation

The perceived reputation of a neighbourhood can also differ for certain age groups. Wang and Li (2004) found a significant effect of age on the importance of the reputation of a district on housing choice. Middle aged groups placed more emphasis on the reputation of a neighbourhood than the younger aged groups, although this effect was not found when comparing the middle aged group with the highest aged group. The results of Niedomysl (2008) indicated the same results, although these effects where not found to be statistically significant.

Next to the differences in importance given to the reputation of a neighbourhood, research has also found differences in the rating of the reputation of a neighbourhood according to age. Permentier et al. (2010) found older residents to rate the perceived reputation of the neighbourhood higher than residents of younger age groups. This finding can be explained by differences in live stages. When people reach an older age, they have more resources to choose a living environment that suits their needs. As they have more options, their preferences also change. Findlay and Rogerson (1993) found that while younger people are more concerned with access to services and the location in relation to the city centre, people of older age attach more value to quality-of-life and environmental living conditions. Therefore, older age groups put more emphasis on subjective neighbourhood characteristics like quietness, peacefulness, and neatness of a neighbourhood (Niedomysl, 2008).

As the perceived reputation is also a subjective neighbourhood characteristic, it can therefore be expected that people of higher age put more value in the reputation of a neighbourhood. Furthermore, as Permentier et al. (2010) found, older age groups rate the reputation of a neighbourhood more positively. It is therefore hypothesised that;

Age has a significant positive effect on the perceived reputation of a neighbourhood.

Ethnicity and safety

Research has consistently found differences in perceived safety and fear of crime between individuals of different ethnicity. "Many surveys show that people of colour have higher fear of crime than white people, which has impacts on use of space and quality of life" (Pain, 2001; 907). Furthermore, Hough (1995) found Asians to score higher on most measures of fear of crime than whites. In general, non-white people are thus found to experience more fear of crime.

This increased fear of crime by ethnic minorities can be explained in multiple ways. Firstly, people of colour are more prone to become a victim and are aware of this vulnerability and thus express more fear of crime (Pain, 2001). Secondly, ethnic minorities experience more harassment and threat as a result of racial discrimination. These threats result in extra anxiety about possible assaults or violence, which leads to higher levels of fear of crime (ibid). Finally, ethnic minorities tend to live in neighbourhoods with higher levels of crime. "Where racial violence is an ongoing feature of local neighbourhoods, danger is less random, risk appears less controllable and fear has more severe effects" (Pain, 2001; 907). As a result, it can be expected that ethnic minorities have a more negative perception of the safety of the neighbourhood.

What needs to be noted however is that a chain relationship might be at play (Agresti and Finlay, 1997). Ethnic minorities are more prone to live in neighbourhoods with high levels of crime and disorder. High levels of crime and disorder may lead to a lower perceived safety of the neighbourhood, hence causing ethnicity to have a negative effect on the perceived safety of a neighbourhood. This however does not have to imply that ethnic minorities also directly perceive the safety of their neighbourhood less positively. However, because of their heightened change of becoming a victim, ethnic minorities might experience less safety in general, and therefore also perceive less safety within the neighbourhood. In order to establish if there is also a direct relationship between ethnicity and the perceived safety of the neighbourhood, ethnicity will have to affect the perceived safety of the neighbourhood even after controlling for neighbourhood characteristics. This relationship is tested and in this present research and it is hypothesised that:

Ethnicity has a significant direct effect on the perceived safety of a neighbourhood even when controlled for neighbourhood characteristics, with ethnic minorities perceiving less safety within the neighbourhood than natives.

Ethnicity and reputation

Research has found ethnic minorities to rate the reputation of neighbourhoods somewhat higher than natives (Permentier et al.,2008; 2010). This is explained by "cognitive dissonance reduction" (Permentier et al., 2010; 72). If a neighbourhood does not satisfy the needs of residents, but they have no possibilities to choose another living environment, this could result in a more positive assessment of the neighbourhood and its characteristics (ibid). As many ethnic minorities have less possibilities to choose a living environment because of a lack of resources, they are more likely to rate the reputation of their neighbourhood more favourable than natives. Hence, differences based on ethnicity in the perceived reputation of neighbourhoods come about.

It could therefore easily be concluded that ethnic minorities will perceive the reputation of a neighbourhood more positive than natives. However, this relationship is not as straightforward as it seems. Ethnic minorities are more prone to live in neighbourhoods with unfavourable neighbourhood characteristics, leading to a lower perceived reputation of the neighbourhood. Therefore, it can be expected that ethnic minorities will perceive the reputation of the neighbourhood less positive as natives, because they often live in the neighbourhoods with a low perceived reputation.

These two relationships seem to contradict, but can actually be tested with the use of the data set. Because ethnic minorities are more prone to live in neighbourhoods with a low perceived reputation, it can be expected that being of ethnic minority will have a direct negative effect on the perceived reputation of the neighbourhood. However, when controlled for neighbourhood characteristic (which control for the fact that they live in neighbourhoods with unfavourable neighbourhood characteristics) ethnic minorities rate the reputation higher because of "cognitive dissonance reduction" (Permentier et al., 2010; 72). This relationship is tested and it is therefore hypothesised:

Ethnicity has a significant effect on the perceived reputation of a neighbourhood. Being an ethnic minority will have a negative effect on the perceived reputation of a neighbourhood, but after controlling for neighbourhood characteristics this effect will become positive.

Socio-economic status and safety

When discussing the effect of individual socio-economic status (SES) on the perceived safety and reputation of a neighbourhood, this present research will focus on two aspects of individual SES; level of education and level of income. These two have often been found to be interrelated, as a high level of education leads to higher paid jobs and a higher level of income. Therefore, both indicators of individual socio-economic status will be dealt with jointly.

Research on fear of crime and safety has showed profound interest in differences based on socio-economic determinants (e.g. Lavrakas, 1982; Pain, 1997; Austin et al., 2002; Williams and Kitchen, 2010). Fear of crime is found to be more prevalent in low SES-groups than in high SES-groups (Lavrakas, 1982; Williams and Kitchen, 2010). Furthermore, Pain (1997) reports that women of lower socio-economic status experience more fear and feel less secure. Finally, high- income and education groups are associated with increased feelings of safety when compared to low- income and education groups (Austin et al., 2002).

Individuals of higher socio-economic status are found to express less fear of crime and higher levels of perceived safety within the neighbourhood (e.g. Williams and Kitchen, 2010). This finding is explained by two dimensions which could be specified as 'avoidance' and 'exposure'. Firstly, higher SES-groups are more able to avoid risky situations as they posses more resources than lower SES-groups to avoid certain risky situations and environments (as with the gated communities studied by Low, 2004). As a result, higher SES-groups are also less exposed to violence and crime within their daily lives. Crime and violence are often present in low SES neighbourhoods, which have a population with a lower education and income (Permentier et al, 2008; Williams and Kitchen, 2010). People living in these neighbourhoods are therefore more exposed to crime on a daily basis and thus feel less safe and state more fear of crime (see also Pain, 1997).

Because individuals of higher SES are more able to avoid, and are less exposed to risky situations and environments, they are expected to perceive more safety within the neighbourhood. Furthermore, as research has shown individuals of higher SES to experience less fear of crime and more perceived safety *in general* (e.g. Lavrakas, 1982; Pain, 1997; Williams and Kitchen, 2010) it is expected that:

The individual level of education and income has a positive effect on the perceived safety of the neighbourhood.

Socio-economic status and reputation

Individual socio-economic status is a significant determinant for the perceived reputation of a neighbourhood (Permentier et al., 2008; 2010). This relationship is however closely related to the amount of choice and resources individuals have on the housing market. Clark et al. (2006) have shown income to be a significant determinant of neighbourhood choice. The higher the level of income, the more resources, and thus the more choice one has to choose a neighbourhood. Therefore: "people with a lot of choice (highly educated, high income, homeowner) can be expected to select a neighbourhood because of a good reputation" (Permentier, 2010: 7).

Because people with a high income and education level are more prone to select a neighbourhood because of a good reputation, they are also more likely to live in a neighbourhood with a high perceived reputation. Furthermore, low-education and income groups often live in neighbourhoods with a lower perceived reputation (Permentier, 2009). As a result of these neighbourhood choices, it can be expected that individuals from higher SES-groups will perceive the reputation of their

neighbourhood more positively than individuals from lower SES-groups. Research has found empirical evidence to support this relationship as Permentier et al. (2008) found:

> "low-socio-economic status groups are more positive about neighbourhoods with a low-socio-economic status than groups with a high socio-economic status, while high-socio-economic status groups are more positive about neighbourhoods with a high-socio-economic status than groups with a lower-socio-economic status." (p. 55).

As has been stated before, residents are found to give higher ratings to the internal reputation (the own neighbourhood) than to the external reputation of neighbourhoods (other neighbourhoods) (Permentier et al., 2008). As a result, these two groups rate their own neighbourhood more positive than external groups rate the same neighbourhood. Furthermore, socio-economic neighbourhood characteristics are believed to have a positive influence on the perceived reputation of the neighbourhood (as will be dealt with later on in this present research). As individuals with a higher level of education and income are more prone to live in neighbourhoods with high socio-economic neighbourhood characteristics, they are also expected to be more positive about the perceived reputation.

These favourable neighbourhood characteristics and the increased amount of choice individuals of higher income and education have on the housing market are thus explanations for the differences in the perceived reputation of the neighbourhood. However, this would also imply that the effect of individual income and education level will diminish after controlling for these neighbourhood characteristics. Therefore:

The individual level of education and income has a positive effect on the perceived reputation of the neighbourhood, but this effect will disappear after controlling for neighbourhood characteristics.

Tenure and safety

Owing or renting a home within the neighbourhood could have a significant effect on the two subjective neighbourhood characteristics discussed in this present research. Overall, homeowners are found to experience more residential satisfaction and therefore give higher ratings to subjective neighbourhood characteristics than those renting a home (Lu, 1998; Parkes et al., 2002; van Ham and Feijten, 2008; Permentier et al., 2010). Cognitive processes result in those owning a home to be more positive about subjective neighbourhood characteristics, as they have often deliberately chosen a dwelling, or invested considerable money into their home. If one deliberately chooses and/or invests in a home, he or she is likely to become more positive about this home and about the neighbourhood as a whole.

However, homeowners are more likely to live in neighbourhoods with a high socio-economic status, as high SES neighbourhoods have a larger proportion of privately owned dwellings. Research has shown that neighbourhoods with a high SES have a higher perceived safety (e.g. Mulvey, 2002; Low, 2004; Williams and Kitchen, 2010). Therefore, the relationship between tenure and perceptions of safety can be expected to disappear when neighbourhood characteristics are controlled for. Therefore, the following relationship between tenure and the perception of neighbourhood safety is expected:

Tenure has a significant effect on the perceived safety of a neighbourhood, with owner-occupants being more positive than renters. This effect will however disappear after controlling for neighbourhood characteristics.

Tenure and reputation

The relationship between tenure and the perceived reputation is believed to exist because of the same reason as with the perceived safety of the neighbourhood. Those owning a home are more satisfied to the neighbourhood, as those who are more satisfied will be likely to give higher ratings to subjective neighbourhood characteristics. Academics have tested this relationship and found tenure to be a

significant determinant of the perceived reputation of a neighbourhood, with homeowners being more positive than renters (Permentier et al., 2010). However, as has been explained, homeowners are more likely to live in high SES neighbourhoods, and high SES neighbourhoods generally receive a higher reputation rating (e.g. Permentier et al., 2008). Therefore, the relationship between tenure and the perceived reputation of a neighbourhood is expected to disappear after controlling for neighbourhood characteristics. It is therefore hypothesised that:

Tenure has a significant effect on the perceived reputation of a neighbourhood, with owner-occupants being more positive than renters. This effect will however disappear after controlling for neighbourhood characteristics.

2.3.2 Selection effects

Selection effects measure the effect of specifically selecting a certain neighbourhood. The reason to add selection effects to the analyses is twofold. Firstly, in this manner it can be tested if selection effects are a predictor of the two subjective neighbourhood characteristics central in this study. Secondly, the addition of selection effects made it possible to control if the effect of individual and household characteristics still exist, after controlling for selection-effects.

Deliberately selecting a certain neighbourhood has been found to have a positive effect on subjective neighbourhood characteristics (van Ham and Feijten, 2008; Permentier et al., 2007; 2008; 2010). Individuals with the recourses and freedom to choose a specific neighbourhood were found to perceive the reputation of the neighbourhood higher than people with less choice (Permentier et al., 2010). Furthermore, residents were found to assess the reputation of their own neighbourhood higher, as a result of their choice to live within that specific neighbourhood (Permentier et al., 2008). As far as known, no research has tested the effect of neighbourhood selection on the perceived safety of a neighbourhood.

There are multiple reasons why this specific selection of a neighbourhood can have a positive effect on subjective neighbourhood characteristics. Firstly, this is related to preferences. Individuals, who have deliberately chosen a certain neighbourhood, live in a neighbourhood which better suits their preferences. As a result, they are also more satisfied with the neighbourhood in general (Permentier et al., 2007; van Ham and Feijten, 2008) and feel more attached to the neighbourhood (Kleinhans and Bolt, 2010). A higher level of neighbourhood satisfaction and attachment will in turn result in a higher rating of subjective neighbourhood characteristics like the perceived safety and reputation (e.g. Permentier et al., 2007; van Ham and Feijten, 2008).

Another explanation is that individuals with more favourable individual characteristics (e.g. high education, high income) are also individuals with more resources to choose on the housing market (van Ham and Feijten, 2008; Permentier et al., 2010). Therefore, they will be more likely to live in neighbourhoods with favourable neighbourhood characteristics (Permentier et al., 2010). As a result, they also live in neighbourhoods which have a higher perceived safety and reputation. Contrary, individuals of ethnic minority and lower age and SES have fewer options to chose and will be more prone to live in neighbourhoods with lower scores on these two subjective neighbourhood characteristics (Kleinhans and Bolt, 2010).

All these explanations have different consequences for the relationship between selection effects and the perceived safety and reputation of a neighbourhood. Firstly, individuals who have deliberately selected a neighbourhood can be expected to be more satisfied with all sorts of aspects of the neighbourhood as a result of this selection. Therefore, is expected that selection effects have a direct positive effect on the perceived safety and reputation of a neighbourhood. Secondly, individuals with more choice are also individuals of higher age, socio-economic status, non-minority groups, and homeowners (Permentier et al., 2010). Therefore, it is expected that the effects of individual and

household determinants (age, ethnicity, SES, and tenure) on the perceived safety and reputation will disappear after controlling for selection effects. Finally, individuals whom specifically select a neighbourhood select neighbourhoods with more favourable neighbourhood characteristics, which will result in them living in neighbourhoods with a higher perceived safety and reputation. Therefore, the effect of selection effects is expected to disappear after controlling for neighbourhood characteristics.

All these relationships result in the following hypotheses:

Selection-effects have a positive direct effect on the perceived safety and reputation of a neighbourhood.

Selection-effects diminish the effect of individual and household characteristics on the perceived safety and reputation of a neighbourhood.

The effect of selection-effects on the perceived safety and reputation of a neighbourhood will disappear after controlling for neighbourhood characteristics.

2.3.3 Objective neighbourhood characteristics

Research on the perceived safety and reputation of a neighbourhood has extensively focused on the effect of neighbourhood characteristics (e.g Bursik and Grasmick, 1993; Waquant, 2007; Wittebrood and van Dijk, 2007; Permentier et al., 2008; 2009; Skifter Andersen, 2008). Although the perceived safety and reputation can be affected by many neighbourhood characteristics, the ethnic and socio-economic composition of the neighbourhood are especially important determinants of these concepts. Therefore, the relationships between these determinants and the perceived safety and reputation will be discussed first, before turning to other neighbourhood characteristics.

Ethnic composition and safety

Research on fear of crime and feelings of safety has devoted significant attention to the influence of the ethnic composition of the neighbourhood (Bursik and Grasmick, 1993; Hough, 1995; Cassella, 2003; Low, 2004; Lee, 2007; Eitle and Taylor, 2008; Hopkins and Smith, 2008; Jackson, 2009). An influential theory within this field is the social disorganisation theory of Shaw and Mckay (1969). The social disorganisation theory of Shaw and Mckay (1969) states a relationship between the level of heterogeneity (together with the level of residential mobility or stability) within the neighbourhood and the level of perceived safety. The more heterogenic a neighbourhood is with respect to its ethnic and socio-economic build up, the less social contacts and social cohesion will exist (van Wilsem et al., 2003) leading to less perceived safety. This relationship and the social disorganisation theory will be elaborated on further in this research, when discussing the effects of social contacts and social cohesion on the perceived safety.

However, an important finding of this theory is that heterogeneity within the neighbourhood population is a significant predictor of the perceived safety of a neighbourhood. What is important to notice is that the more heterogenic a neighbourhood population becomes, the less safe it is perceived (Hough, 1995; Eitle and Taylor, 2008; Hopkins and Smith, 2008). This relationships stems from the idea that what is unknown, is believed to be dangerous because of fear and anxiety for what is unknown. A more heterogenic neighbourhood population leads to more fear for the 'unknown' or 'others', as there are more 'others' present within the neighbourhood. This will further be explained with the use of the racial threat theory (Eitle and Taylor, 2008) and the racial proxy hypothesis (Harris, 1999; 2001).

Fear of the other: The racial threat theory

"In the (empirical) literature, 'fear of crime' frequently comes down to a 'fear of strangers', a fear of the unknown" (Vanderveen, 2006; 219). It is therefore not surprising that research has found fear of

'others' to be of major influence on fear of crime (van der Wurff et al., 1989; Bursik and Grasmick, 1993; Hough, 1995; Cassella, 2003; Low, 2004; Sampson and Raudenbush, 2004; Lee, 2007; Eitle and Taylor, 2008; Hopkins and Smith, 2008; Jackson, 2009). "In fact, some of the earliest major studies of victimizations concluded that fear of crime was primarily a fear of strangers" (Bursik and Grasmick, 1993; 92).

Through the labelling processes of 'strangers' or 'others' as potentially criminal or dangerous, perceptions of risk and safety are formed and represented (Jackson, 2009). Differentiating between 'the self' and 'the other' is referred to as "dualistic thinking" and: "is a form of social splitting used to cope with anxiety and fear. It oversimplifies and dichotomizes cultural definitions and social expectations to differentiate the self from the other" (Low, 2004; 138). This 'dualistic thinking' is based on stereotyping 'the other', founded on simplified images from media and other information sources (van der Wurff et al., 1989; Waquant, 2007; Jackson, 2009).

Unsurprisingly, in the western world dominated by 'whites', ethnic minorities are often labelled as 'the others'. However, this is not to say that only 'whites' fear 'others'. Research has found that ethnic minorities also experience more fear in neighbourhoods with inhabitants from different ethnicities (Lizotte and Bordua 1980, as referred by Moeller, 1989; Hopkins and Smith, 2008; Day, 2009). This diversity within the neighbourhood will cause for more uncertainty and anxiety and thus reduce the perceived safety of a neighbourhood, for individuals of all racial groups.

However, most of the research elaborating on the relationship between perceptions of safety and the presence of ethnic minorities has focused on 'whites' (e.g. Moeller, 1989; Eitle and Taylor, 2008). It has been well established that 'whites' fear of crime is heavily influenced by the presence of ethnic minorities (Bursik and Grasmick, 1993; Hough, 1995; Pain, 2001; Eitle and Taylor, 2008; Hopkins and Smith, 2008; Day, 2009). Research has often found that 'whites' are especially afraid of 'blacks' (Harris, 1999; Crowder, 2000; Sampson and Raudenbush, 2004) although in recent years empirical research has also found relationships with other ethnicities, as for example Hispanics (Eitle and Taylor, 2008) and Muslims (Haldrup, Koefoed, and Simonsen, 2008).

The perceived safety of a neighbourhood is thus profoundly influenced by this fear of others. The perceived safety of the own neighbourhood is heavily influenced by the "familiarity" (p. 92) with the living environment (Bursik and Grasmick, 1993). "People different from us" and "unknown strangers" challenge this "familiarity" and can thus cause anxiety, perceptions of risk and ultimately fear (Bursik and Grasmick, 1993). The racial composition of a neighbourhood is therefore of significant influence on individual fear of crime as well as on the perceived safety of a neighbourhood (e.g. Moeller, 1989; Wittebrood and van Dijk, 2007; Eitle and Taylor, 2008). "The central theoretical basis for examining whether neighbourhood racial composition is a determinant of individual fear of crime is the racial or minority group threat theory." (Eitle and Taylor, 2008; 1104).

The racial threat theory thus argues that the fear of 'others', and anxieties and uncertainties that make people worry about crime and risk when living amongst 'others', causes the relationship between the ethnic composition, and the perceived safety of a neighbourhood. Ethnic minorities are naturally different from 'native' inhabitants, which causes native inhabitants to perceive 'others' as a threat as a result of "binary thinking" (Day, 2009; 96). "Binary thinking reflects a concern with order and conformity, and a desire to keep unlike groups separate through boundaries between imagined safe and dangerous spaces" (Day, 2009; 96). Through this binary thinking certain areas are perceived as safe, while others are perceived as dangerous. As a result "[w]hite neighbourhoods (and white people) are then regarded as 'naturally' good and safe, and non-white neighbourhoods and individuals become 'naturally' suspect." (Day, 2009; 96).

Fear or preference? The racial proxy thesis

Fear of ethnic minorities and the relation to perceptions of safety within the neighbourhood does not only stem from the anxiety and fear related to 'others', but also to residential preferences. Academics have shown the ethnic composition of a neighbourhood to affect neighbourhood preferences for all racial groups (e.g Clark, 1991; 1992; Harris, 2001). These preferences can be explained by the racial proxy hypothesis (Harris, 1999; 2001). The racial proxy hypothesis suggests the preference for all ethnic groups to live amongst predominantly whites: "represent a desire to live in areas free of crime, deteriorating buildings, ineffective public schools, and other social ills" (Harris, 1999; 464). These 'social ills' are believed to mainly exist in neighbourhoods dominated by minority groups. Minorities as well as 'whites' tend to avoid these neighbourhood problems or 'ills' and therefore prefer to live amongst non-minority groups.

The ethnic build up of the neighbourhood can thus influence perceptions of safety, as minority groups are associated with crime, vice, and disorder. As Eitle and Taylor (2008) have shown, "the relative size of the minority population" (p. 1104) can influence the perceived risk and safety of a neighbourhood. However, not only the relative size but also the mixture within the ethnic composition of a neighbourhood is expected to influence the level of perceived safety. As Crowder (2000) has shown, 'whites' are not only wary of neighbourhoods with high percentages of ethnic minorities, they are: "especially likely to leave neighborhoods containing combinations of multiple minority groups" (p. 223). The more diverse and heterogenic a neighbourhood becomes in ethnic composition, the more uncertainties there are for its inhabitants. Therefore, and a more diverse ethnic composition within a neighbourhood, and a higher proportion of ethnic minorities can be of effect on the perceived safety of a neighbourhood, as minorities are associated with crime and disorder.

Next to the mixture, also the type of minorities that are present within a neighbourhood can affect perceptions of safety. Most of the research discussing the effects of the ethnic composition of a neighbourhood on levels of crime and safety is performed within the US and has focused on the percentage of blacks within the neighbourhood (e.g. Moeller, 1989; Harris, 1999). "The association of race and crime does, however, have different manifestations in different places." (Pain, 2001; 906). Fear related to ethnic minorities can therefore differ per place, but also per type of minority. Eitle and Taylor (2008) applied this reasoning as a starting point for their research in Miami-Dade county in Florida, where Hispanics are the largest minority. Their results show the relative size of Hispanics within the neighbourhood to be a major predictor of fear of crime of white residents (Eitle and Taylor, 2008), indicating that the largest minority groups are often the most feared.

Fear of Muslims?

As these results show, the perceived safety of a neighbourhood is thus dependable on the type of ethnicity that is dominant within a certain context, or which is *perceived* as the biggest threat. In the research of Eitle and Taylor (2008) Hispanics are the largest minority, and thus seen as the biggest threat. Research within the Netherlands has shown feelings of un-safety within the neighbourhood to be most significantly influenced by the percentage of non-western immigrants within the neighbourhood, as they are often the dominant minority within the neighbourhood (Wittebrood and van Dijk, 2007). In this present research, Moroccans and Turks are the dominant minority and could therefore be expected to be perceived as the biggest threat.

The perceived threat of these two groups is probably dependable on multiple factors. As stated, Moroccans and Turks are by far the largest non-western minority group within Utrecht. Together they account for 42 % of all non-western ethnic minorities within Utrecht and this group is almost four times bigger than the second biggest group of non-western ethnic minorities (Gemeente Utrecht, 2007). Secondly, criminal offences and problems with minority groups are often perceived to be caused by (mostly younger) Moroccans and Turks. Although (young) Turks and Moroccans are relatively often

involved in criminal offences, it is also believed that their representations by especially media and politicians account for their ethnicity to be labelled as a risk (Bovenkerk, 2009).

The final reason for the presumed perceived threat of Moroccans and Turks is somewhat more complicated. Many of the Moroccans and Turks living within the Netherlands are of Islamic religion. In 2004, Turks and Moroccans accounted for almost 66% of all Islamic people within The Netherlands, and 93 % of all Turks and 96 % of all Moroccans living in the Netherlands stated to be of Islamic religion (CBS, 2010). It is therefore not surprising that Turkish and Moroccan people are often referred to, or labelled as, Muslims by Dutch inhabitants as well as media.

This labelling of Turks and Moroccans as Muslims could have profound effects of the perceived risk of these two groups. As Smith and Pain (2009) argue:

> [E]vents shaping the twenty-first-century have focused attention towards a different kind of fear: towards anxieties that are new, (ostensibly) 'global' and which express the uncertainty of life in a fragile world (...) Attention now given to issues (which are not new, but which have the appearance, at least of accelerating) such as immigration and asylum, infectious disease epidemics, terrorism and environmental catastrophe, is indicative of the growing portrayal and experience of risk and fear as globalised phenomena. (p. 45)

They go on to argue that: "the entwined nature of globalised fears and the processes underlying them; to work the immediate local everyday fears that are already there" (Smith and Pain, 2009; 55). Thus, global events (like the war on terrorism and immigration of Muslims to western Europe) do not only effect fear on a global scale, but can also be expected to enhance more local fears that are already present in the everyday lives of citizens.

This connection from global to local fears could therefore be of influence on the perceived risk associated with Moroccans and Turks. As stated, these two groups are often labelled as Muslims. After the attacks of 9-11, there has not only been an increase in fear of terrorism but also in fear of Muslims (Haldrup et al., 2008; Hopkins and Smith, 2008). As Hopkins and Smith (2008) argue, after 11 September 2001: "Muslims have become the ultimate Other" (p. 110). Therefore, Moroccans and Turks could be feared even more, as they are not only minorities, but also 'Muslim minorities'.

Thus, because of the high percentage of Turks and Moroccans living in Utrecht and the labelling of these groups as Muslim, they can be expected to be the most feared minority within Utrecht. Because of the ongoing war on terror and the labelling of Muslims as a 'threat' Muslims can be expected to be feared in particular. Therefore, neighbourhoods with a large population of Turks and Moroccans can be expected to especially have a low perceived safety. Therefore:

The percentage of Turkish and Moroccan inhabitants within the neighbourhood will have a negative effect on the perceived safety of the neighbourhood.

Next to the percentage of Turks and Moroccans, research within the Netherlands has also found the percentage of non-western immigrants within the neighbourhood to be of significant influence on the perceived safety (Wittebrood and van Dijk, 2007). Turks and Moroccans naturally account for a significant proportion of this group of non-western immigrants. However, also groups from former Dutch colonies like Suriname and the Dutch Antilles are assigned to this group. As these groups can also be seen as 'others' the same reasoning applies as with the percentage of Turks and Moroccans. Therefore it is also expected that:

The percentage of other non-western inhabitants within the neighbourhood will have a negative effect on the perceived safety of the neighbourhood.

Ethnic composition and reputation

Research from varying studies within Europe all reach to the same conclusion: "negative reputations are linked to the presence of ethnic minorities" (Permentier et al., 2008; 42). The higher the percentage of ethnic minorities within a neighbourhood, the lower the reputation of that neighbourhood becomes. According to Waquant (2007) the negative reputation of neighbourhoods with a high percentage of ethnic minority inhabitants is related to: "the already existing stigmata traditionally associated with poverty and ethnic origin or postcolonial immigrant status" (p. 67) of these neighbourhoods. Furthermore, this relationship is closely related to the racial proxy thesis (Harris, 1999) that has been discussed earlier. Ethnic minority groups are often associated with disorder, crime, and vice, and thus neighbourhoods with large percentages of ethnic minorities are associated with these neighbourhood characteristics. These characteristic negatively influence the perceived reputation of a neighbourhood, and therefore neighbourhoods with high percentages of ethnic minorities will have a lower perceived reputation. Research has provided evident empirical evidence to support this relationship (Wassenberg, 2004; Permentier et al., 2008; 2010; Skifter Andersen, 2008).

There is thus a large similarity between the effect of the presence of ethnic minorities on the perceived reputation and the perceived safety of a neighbourhood. On both of these subjective neighbourhood characteristics the ethnic composition of the neighbourhood, seems to be an important determinant. As with the perceived safety, this present research will try to investigate the relationship between the ethnic composition of a neighbourhood and its perceived reputation. To test these relationships, the effect of the relative size of the two earlier discussed groups of ethnic minorities (Turks and Moroccans, and other non-western immigrants) will be tested for the perceived reputation of the neighbourhood. Therefore the following hypotheses will be tested:

The percentage of Turkish and Moroccan inhabitants within the neighbourhood will have a negative effect on the perceived reputation of the neighbourhood.

The percentage of other non-western inhabitants within the neighbourhood will have a negative effect on the perceived reputation of the neighbourhood.

Socio-economic status of the neighbourhood and safety

The relationship between the socio-economic status of a neighbourhood and its perceived safety has received quite some attention. Mulvey (2002) found that residents in lower income areas perceive less neighbourhood safety than residents in higher income neighbourhoods. Williams and Kitchen (2010) report that neighbourhoods with a low SES (which was based on income as well as education of the inhabitants) are perceived as less safe and have higher crime rates. Furthermore, Rosenbaum, Reynolds and Deluca (2002) found residents that moved to a higher SES neighbourhood to feel safer in the neighbourhood than before this move. Finally, Fitzgerald, Wisener, and Savoie (2004) established higher levels of crime and less perceived safety in neighbourhoods that: "are characterized by populations that are more economically disadvantaged, less educated, more likely to have higher numbers of female single parent families, Aboriginal residents and/or recent immigrants" (p. 42).

Research has thus clearly shown a relationship between the SES and the perceived safety of a neighbourhood. However, with respect to this present research, one needs to be cautions when interpreting these results. Firstly, there is the problem of selection effects. As discussed earlier, people with a high SES (mostly high educated individuals with a high income) have more resources to choose between neighbourhoods and are therefore more prone to choose a neighbourhood that is perceived as safe. This is clearly exemplified by the increased popularity of suburbs and gated communities. The socio-economic build up of these communities consist mostly of white, high income households, who moved to these areas because of safety related issues (Low, 2004). People with the resources to

move to a neighbourhood which is perceived as safe, often make such a move. Neighbourhood with a high SES are thus not necessarily perceived as safe because of this socio-economic status, but *people* of high SES *move to neighbourhoods* which are perceived as safe.

As a result, neighbourhoods with a high SES, have a high percentage of inhabitants with a high SES. As discussed before, the individual level of SES is believed to have a significant influence on the perceived safety of the neighbourhood. It could therefore be that the effect of the SES of the neighbourhood on the perceived safety is partly influenced by the individual level of education and income. In other words, the effects of individual levels of income and education directly influence the perceived safety of a neighbourhood, but also have an indirect effect through the SES of the neighbourhood.

Finally, there is a strong correlation between the SES of people and their ethnicity. Within the Netherlands, the income and education level of non-western ethnic minorities is significantly lower than those of Dutch inhabitants (CBS, 2008). The social-economic status of ethnic minorities is therefore also lower. As discussed before, the ethnic composition of a neighbourhood is expected to be of major influence on the perceived safety of a neighbourhood. One could therefore argue that it is not so much the socio-economic neighbourhood characteristics that influence the perceived safety of a neighbourhood, but the correlation between the ethnic composition and the SES of a neighbourhood.

This present research offers a great possibility to test these relationships. In the multiple regression analyses that will be conducted, the effect of the SES of the neighbourhood will be controlled for all these other determinants. Therefore it is possible to distinguish if the SES of the neighbourhood will have a direct effect on the perceived safety of the neighbourhood, or if the effect is mediated through other variables. As a low SES of a neighbourhood was found to have a direct negative effect on the perceived safety of a neighbourhood in previous research (e.g. Mulvey, 2002; Fitzgerald et al., 2004; Williams and Kitchen, 2010) this relationship is also tested in this present research. It is therefore expected that:

The socio-economic status of a neighbourhood will have a significant positive effect on the perceived safety of the neighbourhood.

Socio-economic status of the neighbourhood and reputation

The socio-economic status of a neighbourhood is found to be a significant determinant of the reputation of a neighbourhood (Wassenberg, 2004; Perementier et al., 2008). Permentier et al. (2008) found higher levels of average income and average education (indicators of the SES of a neighbourhood) to lead to a higher perceived reputation. This effect is explained by the status aspect of a reputation (ibid). The perceived reputation is for a large part dependable on the status of that neighbourhood within the neighbourhood hierarchy. The SES of the neighbourhood has an effect on the images outsiders (as well as insiders) have of the overall status of the neighbourhood. Naturally, the higher the socio-economic status of the neighbourhood becomes, the higher the general status, and hence its reputation.

As with the perceived safety, there are however some complications with this relationship. The level of education and income of neighbourhood residents are found to be major predictors of the perceived reputation of a neighbourhood (Wassenberg, 2004; Permentier et al, 2007; 2009; Skifter Andersen, 2008). Individuals with higher levels of education and income live in neighbourhoods with a high SES, and thus it is not clear if individual levels of SES or the SES of the neighbourhood influences the perceived reputation. Furthermore, as with safety, the SES of the neighbourhood is closely related to its ethnic composition, which further intervenes between the SES and perceived reputation of a neighbourhood.

Again, as with safety, this research offers the possibility to test to what extent the relationship between the perceived reputation and the socio-economic status of the neighbourhood truly exists. Research has however already provided evidence of a relationship, with neighbourhoods of high SES receiving higher reputation ratings (Permentier et al., 2008). Therefore it is expected that:

The socio-economic status of a neighbourhood will have a significant positive effect on the perceived reputation of the neighbourhood.

Physical characteristics and safety

The last objective neighbourhood characteristic discussed in this section are the physical characteristics of the neighbourhood. Objective physical neighbourhood characteristics have proven to have an effect on the fear of crime and perceived safety of a neighbourhood (Newman and Franck, 1982). The relationship between these characteristics has been explained with the use of the "defensible space theory" (ibid). "Defensible space theory posits that the physical design of residential settings has a strong influence on both the occurrence of crime and residents' fear of crime" (Newman and Franck, 1982; 203). In multiple studies it is found that the larger the design of the building type within the neighbourhood (high rise buildings, large apartment complexes) the higher the fear of crime, and thus the lower the perceived safety (Newman and Franck, 1982; Taylor, Gottfredson, and Brower, 1984; Kleinhans and Bolt, 2010).

This relationship is found to establish its effect through three linkages. Firstly, residents of high or large sized buildings are less able to exert control in their living environment, and therefore feel less secure. Secondly, residents of large buildings are less able to use the space outside their immediate homes. As a result, they are less familiar with the direct surroundings of their homes and feel more insecure within their living environment. Finally, larger buildings allow for less social interaction between residents (Kleinhans and Bolt, 2010). Residents are therefore more fearful of the other inhabitants within the building because they are less aware of what is happening within their direct living environment, and thus feel less secure (Newman and Frank, 1982).

According to the defensible space theory, the perceived safety of a neighbourhood could also be affected by the percentage of high rise or large sized buildings. However, this relationship might not be so straightforward. As was discussed before, tenure is believed to have a significant influence on the perceived safety of a neighbourhood, with homeowners perceiving more safety. Furthermore, a higher percentage of socially rented dwellings will lead to a lower perceived safety (Wittebrood and van Dijk, 2007; Kleinhans and Bolt, 2010). High rise buildings are often rented dwellings. Therefore, tenure could prove to be an intervening variable in this relationship.

Although its effect might be intervened by tenure, the defensible space theory posits that objective physical characteristics in the neighbourhood influence the perceived safety. High rise and large sized buildings are believed to have a negative effect on the perceived safety of the neighbourhood. Therefore it is tested if the relative size of these high rise and large sized buildings influence the perceived safety of a neighbourhood. Because this relationship is controlled for tenure, it can be tested if this variable might intervene. It is hypothesised that:

The percentage of high rise and large sized buildings within a neighbourhood has a negative effect on the perceived safety of the neighbourhood.

Physical characteristics and reputation

"A range of physical neighbourhood characteristics such as general aesthetics, building density, the maintenance of buildings and public space, and the spatial arrangement of infrastructure, green spaces and dwellings can be expected to affect a neighbourhood's reputation" (Permentier et al., 2008; 41). The visual quality of the build environment has been found to explicitly influence the

perceived reputation of a neighbourhood (Wassenberg, 2004; Skifter Andersen, 2008; Permentier et al., 2008; 2009). Furthermore, research has shown the mix of dwelling types (Van der Meer, 1996, as cited by Permentier et al., 2008) and the dominating architectural style (Wassenberg, 2004; Permentier et al. 2008) to be of influence on the reputation of a neighbourhood.

The building type, style and density of the dwellings within a neighbourhood thus influence the perceived reputation of a neighbourhood. The quality of high-density neighbourhoods is often rated as lower, as: "many city residents consider large housing estates to be massive, monotonous and alien, and therefore as a deviation from other residential areas" (Permentier et al., 2008; 41). As a result many residents prefer low-density neighbourhoods, not only because of the aversion for the building style, but also because: "population density has a negative impact on neighbourhood desirability" (ibid; 87). High and large size buildings lead to a higher population density, and hence they cause the neighbourhood to be less desirable and to have a lower rated reputation.

Therefore, a neighbourhood's reputation can be affected by the objective physical characteristics of the neighbourhood. High rise and large sized buildings are less preferred, and thus expected to have a negative effect on the perceived reputation of a neighbourhood. Therefore:

The percentage of high rise and large sized buildings within a neighbourhood has a negative effect on the perceived reputation of the neighbourhood.

2.3.4 Subjective Neighbourhood Characteristics

This section will discuss the effect of multiple subjective neighbourhood characteristics on the perceived safety and reputation of a neighbourhood. Firstly, the effect of the satisfaction with the neighbourhoods' location will shortly be discussed, as objective levels of this determinant were found to be of influence on the perceived reputation of a neighbourhood (e.g. Costa Pinto, 2000). Next, this section will extensively focus on the effect of social cohesion and neighbourhood attachment on the perceived safety and reputation of a neighbourhood. These two determinants are measured on a subjective level within this present research. Therefore these determinants are discussed within this section.

Location of the neighbourhood and reputation

Research has illustrated the location and accessibility of a neighbourhood to influence the perceived reputation of the neighbourhood (Costa Pinto, 2000). Not only the accessibility of the neighbourhood itself, but also the accessibility to certain facilities can influence the perceived reputation of a neighbourhood (Wassenberg, 2004; Skifter Andersen, 2008). Costa Pinto (2000) found that the poor location and accessibility of a stigmatised neighbourhood in Portugal was of significant influence on the perceived reputation of that neighbourhood. Furthermore, Permentier et al. (2010) found a negative effect of the neighbourhoods' distance to the city centre in kilometres on its perceived reputation.

Academics have thus found an effect of the neighbourhoods' location on its perceived reputation. However, these effects were found by using objective measurements. This research will investigate if a more subjective measurement of the neighbourhoods' locations (satisfaction with the location in comparison to the city centre) is also of influence on the perceived reputation. From previous research it can be expected that the more satisfied with the location to the city centre, the higher the perceived reputation will be. Therefore the following hypothesis is tested:

Satisfaction with the location of the neighbourhood in relation to the city centre will have a positive effect on the perceived reputation of the neighbourhood.

Social cohesion and the social disorganisation theory

Social cohesion within the neighbourhood has a long tradition within urban research. However, the use of the concept social cohesion has been declining and researchers are nowadays more focused on certain aspects and determinants of social cohesion (Kleinhans and Bolt, 2010). This research will focus on two aspects of social cohesion (contacts between neighbourhood residents and neighbourhood attachment) and discuss these elements in relation to the perceived safety and reputation of the neighbourhood with the use of the social disorganisation theory (Shaw and Mckay, 1969) and the concept of collective efficacy (e.g. Sampson and Raudenbusch, 2004).

The social disorganisation theory argues the level of heterogeneity (together with the level of residential mobility or stability named the social disorganisation of a neighbourhood) to be a major predictor of multiple neighbourhood conditions (Shaw and Mckay, 1969). This social disorganisation within the neighbourhood is believed to affect the level of social cohesion, social contacts and social control within the neighbourhood. Through these relationships, the social disorganisation can influence the perceived safety of a neighbourhood. Firstly, the more heterogenic a neighbourhood is with respect to its ethnic and socio-economic build up, the less social contacts and social cohesion will exist (van Wilsem et al., 2003). "Such heterogeneity undermines the build up of social contacts between neighbourhood residents, and with that the ability to pursuit collective goals like the safety of a neighbourhood" (ibid; 7; authors translation). Furthermore, less contacts and social cohesion will lead to less social control, thus the norms that are set will harder to enforce and neighbourhood inhabitants will be less likely to address misbehaviour (van Wilsem et al., 2003).

Secondly, residential mobility and the level of social stability within a neighbourhood can be of influence on the perceived safety and level of crime within a neighbourhood (Wittebrood and van Dijk, 2007). The higher the mobility in and out of a certain neighbourhood, the less stable this neighbourhood becomes, and hence social ties and cohesion between residents will be less strong. As social ties and cohesion are less strong, collective goals are harder to pursuit, social control will be harder to enforce, and misbehaviour less likely to addressed. When misbehaviour is not addressed, deviant behaviour causing disturbance and disorder can become more prevalent, which will have a negative impact on the perceived safety of the neighbourhood.

Thus, more heterogeneity and instability within a neighbourhood population will lead to less social contacts between residents', leading to less social control, which can ultimately lead to more crime and less safety within a neighbourhood. Van Wilsem et al. (2003) showed this relationship to not only exist in neighbourhoods where there is a high level of social disorganisation because many low-income and ethnic minorities are moving in. Also in neighbourhoods where there is a lack of social organisation because new residents from the high-end of the spectrum move in, instability and heterogeneity can cause problems.

Collective efficacy

What becomes evident from the social disorganisation theory is that there seems to be a relationship between the level of social contacts between residents, and the perceived safety of a neighbourhood. To begin with, through contacts with other neighbourhood residents individuals become more familiar with other neighbourhood residents. This familiarity takes away uncertainties and anxiety about the 'unknown' or 'others' which can influence the perception of safety (Permentier et al., 2009; Kleinhans and Bolt, 2010). Secondly, contacts between neighbourhood residents can lead to more social control and the ability to pursuit collective goals (Sampson and Raudenbusch 2004; Wittebrood and van Dijk, 2007; Kleinhans and Bolt, 2010). This ability and willingness to pursue collective goals by neighbourhood residents combined with the level of social cohesion is called 'collective efficacy' (Sampson and Raudenbusch, 2004; Kleinhans and Bolt, 2010). This collective efficacy has also been

proven to have a significant effect on the perceived safety of a neighbourhood (Rosenbaum et al., 2002; Sampson and Raudenbusch 2004; Wittebrood and van Dijk, 2007; Kleinhans and Bolt, 2010).

Collective efficacy can lead to more perceived safety within the neighbourhood because of multiple reasons. Firstly, if neighbourhood residents are more able and willing to pursue collective goals, they are more willing and able to participate in actions to improve liveability problems within the neighbourhood (Kleinhans and Bolt, 2010). If certain problems within the neighbourhood (e.g. disorder, litter, disturbance) are collectively resolved, this could improve the neighbourhoods' quality and order and ultimately lead to more perceived safety (Permentier, 2009). Secondly, collective efficacy influences expectations and willingness to exert and enforce social control. Consequently, social norms and values will be more thoroughly enforced and misbehaviour will be addressed. This enforcement of social control could ultimately lead to a higher level of perceived safety as deviant behaviour causing disturbance and disorder is addressed (Rosenbaum et al., 2002; Wittebrood and van Dijk, 2007).

Next, a higher level of collective efficacy will lead to a higher level of social cohesion (Kleinhans and Bolt, 2010). Social cohesion in turn leads to more familiarity between neighbours. This familiarity can influence the level of perceived safety, as it leads to less anxiety and fear for 'others' in the neighbourhood, as one is more familiar with their neighbours (Rosenbaum et al., 2002; Permentier et al., 2009; Kleinhans and Bolt, 2010). Finally, a higher level of collective efficacy can lead to less perceived disorder or more willingness to resolve signs of disorder (Wittebrood and van Dijk, 2007; Kleinhans and Bolt, 2010). Through collective efficacy residents are for example more prone to clean the streets from litter or address misbehaviour within the neighbourhood. As will be more thoroughly discussed below, forms of disorder have an effect on the level of perceived safety within the neighbourhood (e.g. Wilson and Kelling 1982; Sampson and Raudenbusch, 2004; Wittebrood and van Dijk, 2007). As collective efficacy can resolve disorder, collective efficacy can influence the perceived safety of a neighbourhood.

From the above, a couple of conclusions can be drawn about the relationship between, social contacts, social control, collective efficacy and the perceived safety of a neighbourhood. Firstly, social contacts with other neighbourhood residents reduce uncertainties and anxieties between residents, which can lead to higher perceived safety within the neighbourhood. Secondly, social contacts can lead to more social control and social cohesion, which will lead to a higher level of perceived safety through enforcement of norms and addressing misbehaviour. Thirdly, social contacts and social cohesion can influence the collective efficacy within the neighbourhood, which in turn can influence the perceived safety of a neighbourhood. In sum, social contacts and collective efficacy can lead to a higher level of perceived safety within the neighbourhood, as has been empirically shown (e.g. Rosenbaum et al., 2002; Sampson and Raudenbusch 2004; Wittebrood and van Dijk, 2007; Kleinhans and Bolt, 2010).

This present research will further test these relationships. Both the direct effect of social contacts between neighbours within the neighbourhood will be tested, as the effect of collective efficacy (through social contacts, cohesion, and control) within the neighbourhood. Both are believed to have a positive effect on the perceived safety of a neighbourhood and therefore the following hypotheses are formulated:

Social contacts between neighbourhood residents will have a positive effect on the perceived safety of the neighbourhood.

Collective efficacy within the neighbourhood will have a positive effect on the perceived safety of the neighbourhood.

Neighbourhood attachment and perceived safety

In addition to social contacts and cohesion within the neighbourhood, neighbourhood attachment could also influence the perceived safety of the neighbourhood. Permentier (2009) argues that neighbourhood attachment can lead to more participation and social cohesion within the neighbourhood. Residents who feel more attached to their neighbourhood are more likely to participate in activities to improve or maintain the liveability and quality of the neighbourhood (ibid). This participation in these activities can in turn influence the perceived safety within the neighbourhood, as liveability issues within the neighbourhood are more actively resolved.

Furthermore, "attachment can breed a sense of security, build self-esteem, forge a bond among people, and maintain group identity" (Permentier, 2009; 115). Thus, attachment can increase feelings of security which can influence the perceived safety of the neighbourhood. Furthermore, people who are more attached to their neighbourhood feel more 'at home' or familiar with the neighbourhood (e.g. Permenier et al., 2009). This familiarity takes away uncertainties, which is of significant influence on feelings of safety and security, as has been thoroughly discussed above. Thus, the more attached one is with the neighbourhood, the higher the safety will be perceived. Therefore, it is hypothesised that:

The individual level of neighbourhood attachment has a positive effect on the perceived safety of the neighbourhood.

Social cohesion and reputation

Research on the relationship between social contacts, social control, collective efficacy, and the perceived reputation of the neighbourhood, has mainly focused on how the latter influences these first determinants. Academics have found residents who live in a neighbourhood with a perceived bad reputation to be less likely to have social contacts with other neighbourhood residents (e.g. Waquant, 2007 Rosenbaum et al., 2002). This is believed to be a result of the disassociation with place that inhabitants of bad reputation neighbourhoods experience (Waquant, 2007). These residents try to disassociate themselves from the neighbourhood and its residents because they do not want to be compared or related with these residents and the perceived bad reputation. As a result, they do not seek contact with other residents, and social contacts as well as social cohesion within the neighbourhood are negatively influenced.

Furthermore, the reputation of a neighbourhood is found to affect the collective efficacy within the neighbourhood (Rosenbaum et al., 2002; Permentier et al., 2007; 6). As stated, the collective efficacy within a neighbourhood is dependent on the ability and willingness of residents to pursue collective goals, combined with the social cohesion in the neighbourhood. As social contacts and cohesion within neighbourhoods with a bad reputation are lower, the collective efficacy will also be lower. Furthermore, research has shown participation by residents within neighbourhoods with an unfavourable perceived reputation to be lower, as a result of this reputation (e.g. Permentier, 2009). Therefore, participation and collective actions to improve the liveability of the neighbourhood will be less likely, which influences the perceived reputation of the neighbourhood.

Although research has thus found the reputation of a neighbourhood to influence social contacts between residents and the level of collective efficacy, the opposite relationship is less studied. As far as known, only Permentier et al. (2010) directly studied this relationship. They found social contact between neighbourhood inhabitants to have no significant effect on the perceived reputation of a neighbourhood. However, the presence of family within the neighbourhood (which can also be perceived as social contacts) did have a positive effect on the perceived reputation of the neighbourhood (ibid).

Although this relationship was not found by Permentier and colleagues (2010), this present study does expect a relationship between the level of contacts between residents, collective efficacy and the

reputation of the neighbourhood. As stated, social contacts between residents influence the social cohesion and (both directly as indirectly) the collective efficacy. If the collective efficacy within a neighbourhood rises, collective action to resolve neighbourhood problems and disorder will be higher. More action could lead to less disorder and problems, which will have a positive effect on the perceived reputation of the neighbourhood. Therefore it is expected that social contacts between neighbourhood residents, as well as the level of collective efficacy within the neighbourhood, will have a positive effect on the perceived reputation of the neighbourhood.

Social contacts between neighbourhood residents will have a positive effect on the perceived reputation of the neighbourhood.

Collective efficacy within the neighbourhood will have a positive effect on the perceived reputation of the neighbourhood.

Neighbourhood attachment and reputation

Neighbourhood attachment of residents is found to be affected by the perceived reputation of the neighbourhood. As Waquant (2007) argues, residents of stigmatised neighbourhoods experience "a dissolution of place" (p.69) and therefore feel less attached to the neighbourhood and its residents. As they feel less at home and attached to the neighbourhood, they are less willing to participate in all sorts of neighbourhood activities, including those to improve the liveability of the neighbourhood (Permentier, 2009).

This relationship is however also believed to exist vice versa. Permentier et al. (2009) found a moderate correlation between neighbourhood attachment and the perceived reputation. The higher the attachment to the neighbourhood, the higher the level of the perceived reputation becomes. Furthermore, residents who feel more attached to the neighbourhood feel more at home and will be more likely to participate (Permentier, 2009). Residents that feel more at home and participate more within the neighbourhood are more likely to have a positive connotation with different subjective characteristics, as they feel that neighbourhood problems are more actively resolved. As a result, neighbourhood attachment can influence the perceived reputation of a neighbourhood through this level of participation. This relationship is tested using the following hypotheses:

The individual level of neighbourhood attachment has a positive effect on the perceived reputation of the neighbourhood.

Disorder in the neighbourhood and the broken windows theory

Within this literature review, the topic of disorder within the neighbourhood has been briefly touched upon. It is widely believed that both physical disorder as social disorder within the neighbourhood can be of effect on the perceived safety and reputation of the neighbourhood (Wilson and Kelling, 1982; Sampson and Raudenbush, 2004; Wittebrood and van Dijk, 2007; Kleinhans and Bolt, 2010). An influential theory that elaborates on this relationship is the broken windows theory by Wilson and Kelling (1982). This theory has however received quite some critique in the last decade (e.g. Sampson and Raudenbush 2004, Franzini et al., 2008). The broken windows theory explains how physical disorder can affect the perceived safety and reputation of the neighbourhood, and its critics argue social disorder to even be of more importance as a determinant for both of the studied concepts.

"According to the 'broken windows' theory of urban decline, minor forms of public disorder lead to serious crime and a downward spiral of urban decay." (Sampson and Raudenbush, 2004; 319). This theory assumes that minor forms of physical disorder like garbage, litter, graffiti, and broken windows in a neighbourhood attract criminals and enhance criminal activity within a neighbourhood. These forms of disorder would indicate a lack of social control and cohesion, therefore misbehaviour and the norms within the neighbourhood would be less enforced (Kleinhans and Bolt, 2010). This would in turn

stimulate criminal activity within the neighbourhood, and hence affect the perceived safety of the neighbourhood.

Minor forms of physical disorder have been shown to affect the perceived safety of a neighbourhood (e.g. Rosenbaum et al., 2002; Wittebrood and van Dijk, 2007). Within neighbourhood where physical disorder is more present (for example, graffiti, litter) the perceived safety receives a lower rating. Furthermore, this relationship can also be expected for the perceived reputation of a neighbourhood. As has been stated, physical neighbourhood characteristics are found to influence the perceived reputation of the neighbourhood (Wassenberg, 2004; Permentier et al, 2008; Skifter Andersen, 2008). Therefore, forms of physical disorder like graffiti and litter in the streets can negatively influence the perceived reputation of a neighbourhood.

In sum, the level of physical disorder within the neighbourhood is found to influence both the perceived safety (Rosenbaum et al., 2002; Wittebrood and van Dijk, 2007) as the perceived reputation of the neighbourhood (Wassenberg, 2004; Skifter Andersen, 2008). These relationships are also expected within this present research which results in the following hypotheses:

The level of physical disorder has a negative effect on the perceived safety and the perceived reputation of the neighbourhood.

Not physical, but social disorder

Researchers have heavily debated the broken windows theory (Sampson and Raudenbush, 1999; 2004; Franzini et al., 2008). The relationship between the physical level of disorder and the perceptions of the living environment is contested in multiple ways. Firstly, it has been argued that perception of the living environment are not dependable on the level of physical disorder within the neighbourhood, but are dependable on the social and ethnic disorder within the neighbourhood as these are more influential for neighbourhood perceptions (Sampson and Raudenbush, 2004; Franzini et al., 2008). Secondly, the relationship between the perceived disorder and crime within the neighbourhood has been called "spurious" (p.603) because of the effect of collective efficacy (Sampson and Raudenbush, 1999). As has been argued, a lack of collective efficacy is believed to affect social cohesion and control within the neighbourhood, which can lead to more disorder and undesirable behaviour within a neighbourhood (Sampson and Raudenbush, 1999; Wittebrood and van Dijk, 2007). Thus for example, graffiti in the neighbourhood does not cause crime, but lack of collective efficacy in the neighbourhood causes graffiti *as well as* crime (Sampson and Raudenbush, 1999).

Although the effect of objective measurements of the social and ethnic composition has been thoroughly discussed (the percentage of minorities and the SES of the neighbourhood) subjective measurements of both neighbourhood characteristics have not. As is argued by critics of the broken windows theory (e.g Sampson and Raudenbush, 1999; 2004; Franzini et al, 2008), social disorder can also affect the perceived safety and reputation of a neighbourhood. Social disorder leads to less cohesion, contacts, and attachment as has been discussed by the social disorganisation theory (Shaw and McKay, 1969) which influences perceptions of safety and reputations of neighbourhoods. If residents are less satisfied with the social and ethnic composition of the neighbourhood, they might perceive more social disorder, and hence lower levels of perceived neighbourhood safety and reputation. Therefore, it is fair to presume that the satisfaction with both the social as well as the ethnic composition of the neighbourhood can significantly influence the perceived safety and reputation of the neighbourhood. These relationships are tested within this present research with the following hypotheses:

Satisfaction with the social composition of the neighbourhood has a positive effect on the perceived safety and reputation of the neighbourhood.

Satisfaction with the ethnic composition of the neighbourhood has a positive effect on the perceived safety and reputation of the neighbourhood.

2.4 The Relationship between Safety and Reputation

Thus far, this present research has implicitly discussed many similarities and differences in the determinants of the perceived safety and reputation of a neighbourhood. Both subjective neighbourhood characteristics are for example believed to be significantly influenced by the ethnic composition of a neighbourhood (e.g. Low, 2004; Permentier et al, 2008; Eitle and Taylor, 2008; Skifter Andersen, 2008). Furthermore, both the perceived reputation and the perceived safety of a neighbourhood are influenced by physical (Newman and Frack, 1982; Sampon and Raudenbush, 2004; Wittebrood and van Dijk, 2007; Permentier et al, 2008), and social neighbourhood characteristics (e.g. Hough, 1995; Lee, 2007; Permentier et al, 2007; 2009). There thus seems to be quite some overlap in the determinants of both subjective neighbourhood characteristics.

The connection between the perceived safety and the reputation within a neighbourhood has been shortly elaborated on by academics (e.g. Wassenberg, 2004; Permentier et al., 2008). The relation between the two subjective neighbourhood characteristics has been mostly discussed with respect to different liveability problems. Wassenberg (2004) states that problems affecting the liveability of a neighbourhood (safety, crime, pollution, disorder) are of significant influence on the perceived reputation of a neighbourhood. Waquant (2007) also acknowledges that districts of cities and towns that are known as "those urban hellholes in which violence, vice and dereliction are the order of things" (p. 67) have a low perceived reputation. Thus, both these authors note neighbourhood liveability problems (in which safety is also included) to be of influence on the perceived reputation of a neighbourhood.

Furthermore, research has described a more direct relationship between the determinants of safety and the reputation of a neighbourhood (Permentier et al., 2010; Skifter Andersen, 2008). Both studies found crime rates of a neighbourhood to have a significant influence on the perceived reputation of a neighbourhood. If crime rates rise, the reputation of a neighbourhood will become more negative (Wassenberg, 2004; Permentier et al., 2010; Skifter Andersen, 2008). Although crime rates are not the same as the perceived safety, these results do indicate determinants related to safety and security issues, to be of influence on the perceived reputation

Furthermore, the reputation of a neighbourhood is based on stereotypes and "drawing sharp boundaries" "exaggerated differences", and "simplified images" (Permentier et al., 2008; 39) of a neighbourhood. These images: "are used to make the city comprehensible for daily activities: 'is it safe to go here'; and status considerations: 'what sort of people live here?" (ibid). Perceptions of a neighbourhoods' reputation are thus partly based on images about the safety of the neighbourhood. Next, the perceived reputation of a neighbourhood is based on "simplified images" (p. 39) either through media, relatives, friends, or personal experiences (Permentier et al., 2008). As Nauta et al. (2001) have shown reports by media on neighbourhoods often concentrate on issues of crime and safety. Therefore, these images of a neighbourhood are largely influenced by the information one receives about issues of crime and safety in the neighbourhood. Therefore, the reputation of a neighbourhood can be expected to be significantly influenced by the perceived safety.

What needs to be noted however is that the perceived reputation of a neighbourhood could also be of influence on the perceived safety of a neighbourhood. Rosenbaum et al. (2002) found residents who moved to neighbourhoods with a higher reputation to feel safer. Furthermore, Permentier et al., (2007) found that due to the negative reputation of a neighbourhood, residents and non-residents could become fearful of the local community, and thus experience less safety within a neighbourhood. However, this relationship might be less direct as vice versa. Neighbourhoods with a good reputation are characterised by other neighbourhood characteristics that are also believed to influence the

perceived safety (for example, high SES, low percentage of ethnic minorities). Therefore, the relationship of the perceived reputation on the perceived safety might be channelled through these neighbourhood characteristics.

This research expects the reputation of a neighbourhood to have a positive influence on the perceived safety of the neighbourhood. Within neighbourhoods with a high reputation there will be fewer problems of disorder and liveability, which in turn affect the perceived safety. Furthermore, as has been argued above, it is expected that the perceived safety is of significant direct influence on the perceived reputation of a neighbourhood, as both represent an image of a neighbourhood and these images could influence one another. While others have only briefly touched upon this relationship (e.g. Permentier et al., 2008) this present research deliberately uses both subjective neighbourhood characteristics as determinants of each other and expects:

The perceived safety of a neighbourhood has a significant positive effect of the perceived reputation of a neighbourhood and vice versa, even after controlling for neighbourhood characteristics.

2.5 Media and Crime Statistics

Reports by media on crime and criminal incidents are often believed to be of significant influence on images and feelings of safety (e.g. Koomen, Visser and Stapel, 2000; Vanderveen, 2006; Lee, 2007; Wallace, 2008). Furthermore, media are believed to highly contribute in the creation of images, stigmas and reputations of neighbourhoods (Wassenberg, 2004). Next, statistics about crime, safety, disorder and disturbance could further influence individual perceptions of the safety and reputation of a neighbourhood. There is however little agreement amongst researchers if these relationships truly exist, and therefore this following section will discuss literature concerning the influence of media attention and crime statistics on the perceived safety and reputation of a neighbourhood.

2.5.1 Media, crime statistics, and perceived safety

The basic assumption underlying the relationship between media reports and fear of crime is that the victimisation of others could lead to fear by individuals (Bursik and Grasmick, 1993; Box, Hale and Andrews, 1988; as referred to by Vanderveen, 2006). Vanderveen (2006) calls this relationship 'imaginable victimisation'. Information about victims (either through media reports, stories of relatives, movies, literature etc.) can cause cognitive processes, causing perceptions of individual vulnerability and risks (ibid). This imaginable victimisation can result in increased levels of fear and un-safety. It is however not important:

> "Whether the victim really exists, is a fictional character, somebody who is actually (privately) know, or whether the victim is simply somebody in the news or a public figure. What is fundamental is that knowledge about others, in this case about others who have been victims, is perceived and processed and the way(s) that this is done, accounts for 'fear of crime'." (Vanderveen, 2006; 124)

Therefore, some academics believe that exposure to different types of media can have an effect on levels of fear and safety (e.g. Koomen et al., 2000; Vanderveen, 2006; Wallace, 2008). Koomen et al. (2000) for example showed that respondents reading articles about street robbery reported more fear of crime (especially robbery) than respondents who did not read these articles. Vanderveen (2006) notes, in an overview on the relationship between fear of crime and the media, that: "[s]ome studies indicate that more exposure to news and stories on crime in the media, contributes to higher levels of 'fear of crime'." (p. 127). Through 'imaginable victimisation', exposure to crime and violence via media can thus enhance feelings of un-safety and fear of crime.

This relationship is further believed to exist as media reports influence the public opinion and creation of images about crime and safety (Vanderveen, 2006; Lee, 2007; Wallace, 2008). "The 'popular images', reflected in everyday narratives, are affecting people's lives in various ways (...) and people

are taught what crimes to fear, where and when to be afraid, who is dangerous and who is safe" (Vanderveen, 2006; 127). Through their influence on public opinions, media thus create, develop, and sustain images about who, what, where and when people are ought to feel safe and not. Information about victims and offenders feed these images and through this 'imagination' or 'identification' certain stereotypical images about victims and offenders will develop (Vanderveen, 2006). As Lee (2007) states: "*Feared subjects* are constantly and easily created" (p. 154; italics in original).

Furthermore, representations of places by journalist in different media can cause "idyllic constructions of places as safe enclaves" (p. 399) creating a sense of where crime is supposed to happen and where not (Wallace, 2008). Next, crime that has happened within a neighbourhood can be transmitted through reports in the media. This transmission of information about crime within the neighbourhood influences inhabitants' perceptions of crime within the neighbourhood, and hence influences their perception of neighbourhood safety (Bursik and Grasnick, 1993). This thus implies that there is indeed an influence of media reports on the perceived safety of neighbourhoods.

Although exposure to media reports is thus found to influence feelings and images of safety, researchers acknowledge that the effect of media on levels of crime and safety is often over exaggerated (e.g. Lee, 2007; Wallace, 2008). Some have even argued that there is no simple causal link between (mass) media and levels of fear of crime within communities (e.g. Howitt, 1982; Lee, 2007). Although this relationship might exist weakly, what might be of more importance is that media feed an already existing fear (Lee, 2007). Lee (2007) argues that crime reports and exposure to these stories do not directly but indirectly influence perceptions of safety and fear of crime. Reports on crime, violence, and vice further develop feelings of fear and un-safety but they are never the originator of these fears. Therefore, it has been argued that there might be an intersection between fear of crime and the media, but there seems to be no causal linkage.

Although academics do not fully agree on the causal linkage between media, and feelings of safety and fear, they do seem to agree on one certain aspect. Media create, sustain, and develop simplistic and misrepresented images about crime, safety, victims, and offenders within society (Howitt, 1982; Vanderveen, 2006; Lee, 2007; Wallace, 2008). Firstly, media over represent certain crimes, victims, and offenders (Lee, 2007). Especially violent crimes receive a disproportionate amount of attention (Vanderveen, 2006; Lee, 2007; Wallace, 2008). Furthermore: "not only the type of crime, but characteristics of the victim, defendant and place are related to the coverage as well" (Vanderveen, 2006; 128) and unlikely victims and offenders receive more attention than those who fit the 'stereotype'.

Secondly, media have a high tendency to report crimes that are sensational or statistically uncommon. For example, media often report on crimes taken place on an 'innocent victim' that is randomly attacked, raped, or killed by a stranger. However, "[s]tatistically in Australia, as in the Western world more generally, most murders are committed by members of the victim's own family or by close acquaintances" (Lee, 2007; 188). Furthermore, violent or criminal events taken place in unlikely places (e.g. rural towns, suburbs) often receive disproportionate attention, because such events are not 'supposed' to happen in those places (Wallace, 2008). As a result crime is routinely (re)presented in the media as being 'worse than ever' (Lee, 2007; 189), while actual crime rates are consistently dropping (Koskela, 2009).

Although crime rates might be dropping, their effect on perceptions of safety is believed to be significant. The information residents and non-residents have about crime and disorder within a neighbourhood is often based on these crime statistics. Furthermore, the reports by media use crime rates and figures to illustrate the developments on these issues (although they might have a focus on negative developments). As they thus serve as an information source and (to some extent) represent the level of crime within a neighbourhood, objective levels of crime can be seen as an important determinant of the perceived safety within the neighbourhood.

As has been stated, media can construct images about which places are safe, and which are not (Wallace, 2008). The same is true for the construction of safe and unsafe neighbourhoods. Especially negative representation on neighbourhood problems by media (e.g. disturbance, crime, violence) can therefore cause certain neighbourhoods to be perceived as unsafe. Furthermore, crime rates are believed have a significant influence on feelings of safety, as they are representations of the level of crime within a neighbourhood. This present research will investigate both these relationships and hypothesise that:

Negative representation by media and crime statistic of the neighbourhood will have a negative effect on the perceived safety of a neighbourhood.

2.5.2 Media, crime statistics, and perceived reputation

As has been stated, the perceived reputation of a neighbourhood is a collective shared view that reflects the status of a neighbourhood within the urban hierarchy (Permentier et al., 2008). This collective shared view is affected by many determinants, but to a large extent also by the information individuals have gathered about a neighbourhood (ibid). This information stems from multiple sources like family, friends and relatives, but a significant amount of this information is gathered through media. Reports in the media about neighbourhoods therefore provide individuals with the information used to produce a reputation of a neighbourhood.

Media reports repeatedly emphasise the negative aspects and developments within the neighbourhood. Over half of the reports in Dutch newspapers on a stigmatised neighbourhood in Amsterdam where found to be negative in tone, and only longer articles emphasised positive developments within this neighbourhood (Nauta et al., 2001). As a result, such reports could have a negative impact on the already damaged reputation of this neighbourhood. Permentier et al. (2008) reached the same conclusion in their analyses of reputations of 24 neighbourhoods in Utrecht. The reputation of the lowest ranked neighbourhood is: "possibly influenced by the local media, continuously emphasising the negative aspects of this neighbourhood" (Permentier et al., 2008; 54).

Furthermore, research has devoted attention to the effect of crime statistics on the perceived reputation of a neighbourhood. Research has found neighbourhood crime rates to have a significant effect on the perceived reputation of a neighbourhood (Permentier et al., 2009; 2010) as they further influence and construct images of the neighbourhood. The perceived reputation is also to a large extent based on information gathered through media. Therefore, media can be of significant influence on the perceived reputation. Although research has not deliberately investigated this relationship, negative attention by the media has been suggested to negatively influence a neighbourhoods' reputation (Wassenberg, 2004; Permentier et al., 2008). This present research will therefore test this relationship and hypothesise:

Negative representations by media of the neighbourhood as well as crime statistic will have a negative effect on the perceived reputation of a neighbourhood.

2.6 CCTV and the Perceived Safety of a Neighbourhood

Although this topic could not be tested in this present research because of methodological limitations, an overview on determinants of the perceived safety of a neighbourhood would not be complete without discussing the possible effects of measurements to enhance feelings of safety. Especially the use of Closed Circuit Television cameras (CCTV) as a measurement to enhance feelings of safety has received a vast amount of scientific attention in the last decade or so (Fyfe and Bannister, 1996; Ditton, 2000; Williams and Johnstone, 2002; Welsh and Farrington, 2002; Koskela, 2000; 2002; 2003). However, researchers have found quite differing results (see for example, Koskela, 2000; Ditton, 2000;

Welsh and Farrington; 2002) which led to much debate. Therefore, this specific measurement will receive some extra attention in this section.

The use of CCTV as a security measurements has been thoroughly debated amongst academics, as the use of CCTV has been growing extraordinarily throughout the Western World (Fyfe and Bannister, 1996; Koskela, 2000; 2002). While politicians and policy makers applaud the results and low costs of CCTV for reducing crime, academics seem to be quite critical of its presumed effectiveness (see for example Ditton, 2000; Koskela, 2000; Williams and Johnstone, 2002). Criticizers have claimed that CCTV merely displaces crime and has moderate effects on actual crime reduction (e.g. Koskela, 2000; 2002) while politicians and authorities use statistics of lowered crime rates (see for example, Fyfe and Bannister, 1996) to exemplify the success of CCTV.

Most of the critique on CCTV is based on negative results related to the installation of CCTV. With respect to crime prevention, critics mostly argue that CCTV does not reduce crime but merely replaces it, and that CCTV only reduces property crime not violent crime (Koskela, 2000; Williams and Johnstone, 2000; Lee, 2007). Furthermore, it has been argued that the presence of CCTV further "feeds" (p.182) feelings of fear and un-safety, because it makes people aware that 'danger could be present' (Lee, 2007). Finally, it has been stated that CCTV ads to existing power relations between the sexes within public space, creates new forms of social control, and contributes to the labelling of whom, and what behaviour, is accepted within public space (Koskela, 2002). Some critics have even claimed that CCTV will turn public space into a "panopticon" (p. 251) and: "spontaneous social behaviour in it – will be forced to *die*" (Koskela, 2002; 247 italics in original).

What is however interesting to notice, is that nearly all the critical reviews of CCTV have also established positive effects of CCTV (Fyfe and Bannister, 1996; Ditton, 2000; Williams and Johnstone, 2000; Koskela, 2002; Welsh and Farrington, 2002). The study of Welsh and Farrington (2002) reviews multiple studies researching the effect of the installation of CCTV in public space. From the 22 evaluations, 11 found a desirable effect on crime (crime decreased within the area), 5 found an undesirable effect (crime increased within the area) and 5 found no effect, after the installation of CCTV camera's. A meta-analysis was also conducted, which resulted in a positive effect of CCTV for 50% of the areas, although the reduction in crime was fairly small (4% on average in actual crime rates). The research concluded that CCTV had no effect on violent crimes, significant effect on vehicle crimes, and only a small reduction in crime when implemented within public spaces (Welsh and Farrington, 2002).

Furthermore, although academics are quite sceptical, the general opinion about CCTV is much more positive (Koskela, 2003; Lee, 2007). A study by Koskela (2003) on the use of CCTV in Helsinki, showed that 70% found CCTV to be useful for crime investigation, and 58% believed that CCTV could prevent crime. Furthermore, 63% found surveillance within urban space with the use of CCTV a good thing, and 62% of the respondents state that the presence of CCTV in urban space has no negative consequences for them at all. As Ditton (2000) states: "overall, there is a majority support for open-street CCTV" (p. 693).

Next, CCTV also has some advantages. "Compared to patrolling by foot, video-surveillance makes it possible to oversee larger spaces with the same amount of personnel" (Koskela, 2000; 244). Furthermore, CCTV is believed to be useful in detecting (potential) offenders, reducing the time available to commit a crime, and symbolise efforts to tackle crime (Welsh and Farrington, 2002). Furthermore, the images made by CCTV camera's can be used for crime solving purposes or as evidence in court. However, this is only an advantage after the crime has taken place, and naturally preventing crime is of more use than solving it (Koskela, 2002).

Although academics are not unanimous on the presumed positive effects of the use of CCTV, it could be expected that this measurement could influence the perceived safety of a neighbourhood. The

presence of a CCTV camera can make one feel that someone is 'watching over you' which could result in enhanced feelings of safety. However, it could also be argued that the presence of surveillance camera's shows that there could be possible threats, therefore making oneself feel more anxious within that area for these possible threats. Therefore, it is not quite clear if the installation of CCTV camera's within the neighbourhood would render a positive or negative effect on the perceived safety of a neighbourhood.

However, what is clear is that the installation of a CCTV within a neighbourhood could have an effect on the perceived safety of a neighbourhood. Although there are some neighbourhoods within the research area that are equipped with CCTV cameras, it is not possible to test the effects of these cameras on the perceived safety of a neighbourhood in this present research. However, as academic as well as public and political interests in these effects have been growing and heavily contested, this topic needed to be discussed in this present research as a discussion of determinants of the perceived safety of a neighbourhood would not be complete without at least mentioning this topic.

2.7 Conceptual Model

This chapter has discussed a vast amount of theories, relationships, and previous findings on determinants of the perceived safety and reputation of the neighbourhood. With the use of these theories, multiple hypotheses and assumptions were developed which will be tested in the following chapters. In order summarize all these hypotheses and relationships, a conceptual model was produced which is displayed in Figure 2.1. This conceptual model graphically displays the assumptions and hypotheses made, and can be used as a quick overview of these assumptions and hypotheses within this present research.

The conceptual model consists of those determinants that are believed to influence the perceived safety and reputation of the neighbourhood. These determinants are represented in the uninterrupted boxes (e.g. ethnic composition of the neighbourhood). These boxes are grouped by a dotted box, which represent the type of characteristics the determinants belong to (e.g. objective neighbourhood characteristics). These dotted boxes correspond to the different models that will be added within each analysis, as will be further explained in the following chapters. Finally, the two dependent variables (the perceived safety and perceived reputation of the neighbourhood) are displayed within the model with an arrow between them, which represents their believed relationship.

Lines are drawn which represent the relationship between the determinants (e.g. between objective and subjective neighbourhood characteristics), and their relationship to the two dependent variables. It was chosen to only display the lines from the dotted boxes because of the readability of the model. Furthermore, relationships between determinants that are grouped within the dotted boxes have not been displayed, as this would make the model quite cluttered. For example, age and tenure are believed to be related (as those of higher age have more resources to buy a home, and are thus more prone to be homeowners) but these relationships are thus not represented within Figure 2.1.

Each arrow represents a presumed relationship, based on the literature and theories that have been discussed above. With the use of these arrows, the presumed relationships are graphically displayed. As a form of guidance in the interpretation of the model, the arrows stemming from the dotted box 'individual household characteristics' will be explained. Individual household characteristics are believed to directly influence the perceived safety and reputation of the neighbourhood, as women are for example believed to experience less safety within the neighbourhood. Selection effects can also be influenced by individual characteristics, as those of higher age and homeowners are more prone to specifically select a neighbourhood. Next, individual characteristics can influence both objective as subjective neighbourhood characteristics. For example, those of higher socio-economic status live in higher SES neighbourhoods (objective characteristics) and homeowners (tenure) are believed to be more positive about subjective neighbourhood characteristics as researchers have shown (e.g. Parkes

et al., 2002; van Ham and Feijten, 2008). The relationships that have been posed throughout this chapter can thus be derived by the arrows displayed in Figure 2.1, and therefore the conceptual model can be used as an overview of the assumptions made within this literature review.

CONCEPTUAL MODEL

3. Data and Method

To answer the questions and hypothesis posed within this research, a dataset was used which was gathered within 24 different neighbourhoods in the city of Utrecht, The Netherlands. Utrecht is the fourth largest city within the Netherlands with 281,011 residents at the time the data was gathered (2006) (Permentier et al., 2008). Because of the presence of an university within the city, the city has a large proportion of highly educated residents in the Netherlands and a high percentage of residents under the age of 25 when compared to the other three big cities in the Netherlands (Amsterdam, Rotterdam, The Hague) (ibid). It was selected as "the city contains relatively clearly demarcated neighbourhoods (...) [and] the size of this city ensured the recognition of different neighbourhoods by the city residents" (Permentier, 2009; 21).

To ensure this recognition of the neighbourhoods by the city residents, a telephone survey was firstly conducted. With the use of this telephone survey, 24 out of the total of 38 neighbourhoods were selected (representing 69 percent of the Utrecht population), as they were found to have a wide recognition amongst the city residents. The 24 neighbourhoods and the city of Utrecht are displayed in Figure 3.1. These neighbourhoods were not only well known amongst city residents, they also had a considerable variation based on neighbourhood aspects like building type and style and the socio-economic and ethnic build up (Permentier et al., 2008). Within these 24 neighbourhoods questionnaires were distributed to randomly selected households, which were collected in person by student assistants. "In total, 1,389 paper questionnaires were collected in a three month period in the spring of 2006, with a response rate of 44,1 percent (Permentier, 2009; 22). For more information on the collection and gathering of the data, see for example Permentier (2009).

3.1 Additions and Adjustments to the Data

The dataset was obtained for an earlier analysis of the effects of neighbourhood reputations (see for example Permentier et al., 2007; 2008). The dataset could with some additions be used for this present research. Therefore, the dataset had to be expanded. Data on key variables about neighbourhood characteristics were gathered through the internet site of the municipality of Utrecht (www.wistudata.nl). This site contains an extensive amount of statistics of the city of Utrecht and its residents over the last 6 years. Therefore, information on objective neighbourhood characteristics for the 24 neighbourhoods could be gathered for the year in which the original dataset was gathered (2006). Data was gathered from this website for the following variables: percentage of Turks and Moroccans within the neighbourhood; percentage of other non-western immigrants within the neighbourhood; percentage of high rise buildings within the neighbourhood; neighbourhood population; police registered criminal incidents in neighbourhood; police registered incidents of youth disturbance. The police registered incidents (both criminal as youth disturbance) were made relative (number of incidents per 1000 inhabitants), by dividing them with the use of the neighbourhood population and multiplying this with 1000.

Figure 3.1 The city of Utrecht and the surveyed neighbourhoods (Permentier et al., 2010)

The socio-economic status of the neighbourhood was operationalised with the use of the Utrecht monitor 2007 (Gemeente Utrecht, 2007). Within this report, a list was presented of the place of a neighbourhood within the urban hierarchy, based on income and occupation of neighbourhood inhabitants. The place of a neighbourhood within this list was based on the assessments of the respondents in the Utrecht monitor, and thus represents the opinion of inhabitants of Utrecht of a neighbourhoods place within the urban hierarchy. As, the socio-economic status of a neighbourhood is related to the income, occupation, and education of its inhabitants, the socio-economic status of the 24 neighbourhoods could be derived from this list. Furthermore, this list contained a division in those neighbourhoods that were seen as favourable, moderate, or unfavourable, with respect to their socio-economic status. With the use of this division, the 24 neighbourhoods within this present research could be assigned to the three groups made for the socio-economic status of a neighbourhood (favourable = high, moderate = middle, unfavourable = low).

3.2 Measurements of the Used Variables

The questionnaires that were gathered provided the information on most of the variables that were used within this present research. However, variables measuring objective neighbourhood characteristics were acquired through the municipality (www.wistudata.nl). With the use of the statistics obtained from this website, objective neighbourhood characteristics of the 24 neighbourhoods were added to the original data file and used when measuring the effect of objective neighbourhood characteristics on the dependent variables. Information on subjective neighbourhood characteristics and the two dependent variables (perceived safety and perceived reputation of the neighbourhood) were obtained from the answers within the questionnaires.

Both the perceived safety and perceived reputation of the neighbourhood were based on individual assessments. This method was chosen as this research investigated the perceptions of residents of the safety and reputation of their neighbourhood (individual level) instead of the assessment of other city residents (a collective score based on a rating by combing all the individual assessments). To test the perception of safety of the neighbourhood by residents, the following question was asked:

"Please indicate on a 5-point scale (very negative to very positive) how you would assess the safety in your own neighbourhood."

This question was preferred above the question "*I feel safe within my neighbourhood"* as the perceived safety of a neighbourhood is a judgement of the safety, based on more aspects than just feeling safe (as has been argued in chapter 2 of this present study). One could for example feel safe within the own neighbourhood, but not perceive the neighbourhood as safe as a whole.

To measure the perceived reputation of the neighbourhood the following question was asked:

"Please indicate on a 5-point scale (very negative to very positive) how you think other city residents would assess the reputation of your neighbourhood."

This question was used instead of questions asking respondents how *they* would assess the reputation of their neighbourhood. Reputations are collective shared views (Permentier et al., 2008) and it is therefore more important how residents think this collective shared view is perceived by other city residents, than how they themselves assess the reputation. Furthermore, academics have found residents to be more positive about the reputation of their own neighbourhood (Permentier et al., 2008). Therefore, asking the judgement of the reputation of the neighbourhood of residents themselves could result in a distortion of the rating of the reputation of the neighbourhood, as they would on average receive higher ratings.

In the first model, individual characteristics were tested. The information for these characteristics came from the personal questions at the end of the questionnaire. Dummy's were made for the education and income groups (see Table 4.1 for an description of the division of these groups). In the second model, so called selection effects were tested. Selection effects measured the influence of specifically selecting a neighbourhood on the perceived safety and reputation of a neighbourhood. With the use of the question *"Did you deliberately choose to live in this specific neighbourhood"* a dummy variable was constructed. Those who had stated *"yes, I only wanted to live in this neighbourhood"* were assigned to the group that had specifically selected the current neighbourhood, while all other answers (*"Yes, but I also wanted to live in another neighbourhood"* and *"No, I actually wanted to live in another neighbourhood but could not find a suitable dwelling"*) were assigned to the reference group.

This research also tested the effect of certain subjective neighbourhood characteristics on the perceived safety and reputation of the neighbourhood. Except for the level of collective efficacy, neighbourhood attachment, and media influence, all subjective neighbourhood characteristics were measured with the use of the following questions:

"Please indicate on a 5-point scale (very negative to very positive) how you would assess:

- *The location of your neighbourhood in relation to the city centre. (neighbourhood location)*

- *The contact between neighbourhood residents. (social contacts within the neighbourhood)*

- *The neatness of your neighbourhood. (perceived physical disorder)*

- *The income composition of the residents of the neighbourhood. (perceived social disorder)*

- *The ethnic composition of the residents of the neighbourhood. (perceived social disorder)*

The last two questions from this list were both used to test the hypothesis related to the level of social disorder within the neighbourhood. Naturally, satisfaction with the income and ethnic composition were not the same as the amount of social order within the neighbourhood. However, they could be used as indicators of this social order. Respondent which scored low on these two questions can be expected to perceive less social order, as they are dissatisfied with the ethnic and/or income composition of their neighbourhood. Sampson and Raudenbush (2004) have shown the social build up of a neighbourhood to be important determinants on perceptions of disorder. Therefore, dissatisfaction with these indicators of the social build up of the neighbourhood could be interpreted as a perception of social disorder for that respondent. Naturally, this is not to say that social disorder is therefore prevalent within the neighbourhood and the results have to be interpreted with caution, but by using these questions at least indications of the perceived social disorder within the neighbourhood could be measured.

In order to measure the level of collective efficacy (ability and willingness to pursue collective goals by neighbourhood residents), level of neighbourhood attachment, and images of the neighbourhood as portrayed by the media, the following questions were asked:

"Please indicate on a 5-point scale (strongly disagree to strongly agree) till what extend you agree with the following statements:

- *People in this neighbourhood are willing to make an effort in order to maintain or increase the liveability within this neighbourhood. (collective efficacy)*

- *I feel attached to this neighbourhood. (neighbourhood attachment)*

- *The image of this neighbourhood as represented by the media is generally positive. (media influence)*

Finally, the last subjective neighbourhood characteristics used in the analysis were the perceived safety and reputation of the neighbourhood. That is, to test the independent effect of the perceived safety on the reputation and vice versa, both these variables were added to the analysis. The measurements were however the same as with the dependent variables, thus the same questions were used as have been explained above.

3.3 Method

In order to reveal the determinants of the perceived safety and reputation of the neighbourhood, separate multiple linear regression analyses were performed. The determinants of each dependent variable were studied independently in these models, and by comparison of the models differences and similarities between determinants of the perceived safety and reputation of a neighbourhood could be established. For each dependent variable, five models were used and with each model a group of related variables were entered to the analysis. Model I tested the effect of individual and household characteristics. In model II selection-effects were added in order to investigate the influence of

specifically choosing a neighbourhood on both dependent variables. In model III objective neighbourhood characteristics were included, while in model IV subjective neighbourhood characteristics were also added to the analysis. Finally, in model V, variables that measured objective levels of crime and the image of the neighbourhood as portrayed by the media were included to the analyses.

Before the analyses could be performed, a filter was made for two specific neighbourhoods within the data file. The first analyses based on all 24 neighbourhoods provided some unusual and unanticipated results. A further analysis of the data revealed that both the neighbourhood 'Wijk C' as "Binnenstad" had considerable outliers on some key variables (for example, NBH criminal incidents) when compared to the other 22 neighbourhoods. Both these neighbourhoods are located in the centre of Utrecht. Therefore, their characteristics are distinctively different from the other neighbourhoods present in the dataset. For example, these neighbourhoods have high crime rates and high levels of physical disorder, while the reputation is relatively high as they are favourable neighbourhoods to live in (especially amongst younger inhabitants). Therefore, their inclusion in the first analysis distorted the results, and thus it was decided to exclude 'Wijk C' and "Binnenstad' from the analysis, resulting in 1026 usable cases. Finally, within the original dataset, one neighbourhood was overrepresented (Kanaleneiland). This neighbourhood was over-sampled as the researchers which gathered the original data file wanted to focus on this specific area in future research (see Permentier, 2009). Therefore, the data was weighted to account for this oversampling before the analysis was performed.

4. Determinants of 'Safe' and 'Nice' Neighbourhoods

This research was set out to compare the determinants of the perceived safety and reputation of a neighbourhood in order to find similarities and differences in the determinants of both subjective neighbourhood characteristics. Furthermore, this present research attempts to test the relationship between these two studied neighbourhood characteristics. The following section will discuss the analyses performed to study these relationships. Firstly, the descriptive analyses will be presented and next the multiple regression analysis will be elaborated on.

4.1 Descriptive Statistics

Analysis of the correlation of the perceived safety and reputation of the neighbourhood showed a Spearman correlation coefficient of 0.394 ($p<0.01$). This result indicated that although the perceived safety and reputation of the neighbourhood were related, they measured different concepts. Descriptive analyses provided further indications of differences, as well as a relationship between both concepts. These analyses are graphically displayed in Figure 4.1. The figure shows the average rating of the neighbourhoods' perceived safety and reputation ordered by their place within the urban hierarchy. The bar represented the mean perceived reputation, while the line represented the mean perceived safety of the neighbourhood.
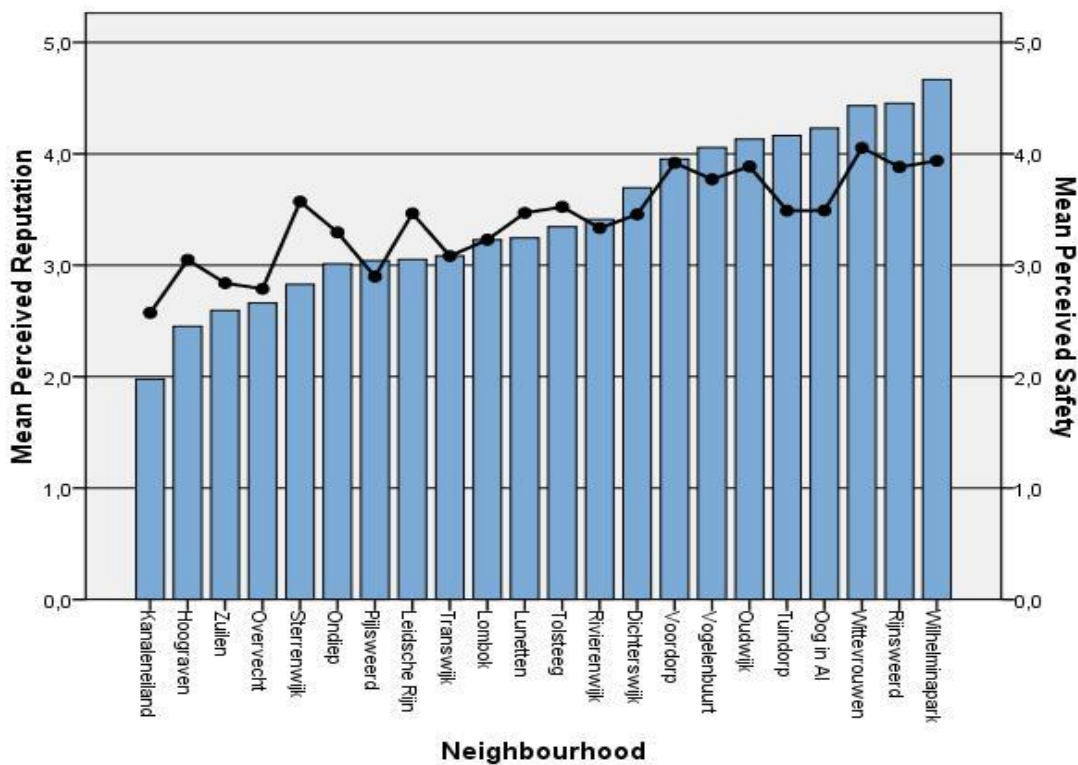

Figure 4.1: Mean of perceived reputation (bar) and perceived safety (line) of 22 neighbourhoods, sorted from the neighbourhood with the lowest mean perceived reputation.

Figure 4.1 provided some primarily insights in the similarities and differences between both studied neighbourhood characteristics. Firstly, the differences between the bars and the line in Figure 4.1 clearly indicated the perceived safety and perceived reputation of the neighbourhood to receive different ratings (except for Transwijk). This result provided additional evidence of both subjective neighbourhood characteristics to be separate concepts. Secondly, the bars indicated a larger spread than the line, illustrating a higher variance in the mean perceived reputation than the mean perceived

safety of the 22 studied neighbourhoods. Furthermore, from the 22 studied neighbourhoods, 11 neighbourhoods had a higher mean perceived reputation compared to the mean perceived safety, while 10 neighbourhoods scored higher on mean perceived safety. Furthermore, a further analysis of the differences between the bars and line showed the mean of the perceived reputation to generally be lower than the mean perceived safety for the 10 lowest ranked neighbourhoods. However, for the 10 highest ranked neighbourhoods the mean of the perceived reputation was generally higher than the mean perceived safety.

This result indicated the effect of neighbourhood characteristics and media attention to possibly have a differing influence on both concepts. For example, the socio-economic and ethnic build up of the neighbourhoods at the top and bottom are distinctively different. The neighbourhoods with a higher mean for the perceived safety than the perceived reputation (e.g. Kanaleneiland, Zuilen, Overvecht, Sterrenwijk) are known to have high concentrations of ethnic minorities and inhabitants of low SES while those at the top (Oog in Al, Wittevrouwen, Wilhelminapark) are associated more positively with respect to these characteristics. These differences in objective neighbourhood characteristics could thus be of effect on the differences in the mean of the perceived safety and reputation of the neighbourhoods, and provided a primarily indication of different a effect of objective neighbourhood characteristics on the perceived safety and reputation of a neighbourhood.

Furthermore, the influence of media could be of effect on the discrepancy between the perceived safety and reputation at the top and bottom of the hierarchy. This relationship was even further illustrated in Figure 4.1 by analyzing the largest differences in the mean of the reputation and safety for each neighbourhood. The largest differences between both means were found for the neighbourhoods Kanaleneiland, Hoograven, Sterrenwijk, Tuindorp, Oog in Al, and Wilhelminapark. The first three neighbourhoods receive a vast amount of negative publicity while the last three neighbourhoods are often positively mentioned. The large gaps between both ratings for these six specific neighbourhoods therefore provided indications of media attention to be of more effect on the perceived reputation, than the safety of a neighbourhood.

Next to the differences between both concepts, similarities were also found. A further analysis of the neighbourhood hierarchies showed 8 out of the top 10 lowest- and highest ranked neighbourhoods based on the average perceived safety to also be placed in the top 10 of lowest- and highest ranked neighbourhoods based on the average perceived reputation. This result indicated both concepts to be related to each other, as was further illustrated by comparison of the line and bars in Figure 4.1. In Figure 4.1, the line showed a general upward trend in concurrence with the bars. It could be therefore concluded that generally neighbourhoods with a higher perceived reputation also have a higher perceived safety and vice versa, and a positive relationship exists between both subjective neighbourhood characteristics.

The descriptive analyses discussed above revealed some primary similarities and differences between the perceived safety and perceived reputation of a neighbourhood. Next, this section will analyse why and how these similarities and differences come about. Therefore, multiple regression models were used which measured the effect of multiple variables of both concepts. The results of these analyses will be discussed in the following section. Table 4.1 shows the descriptives of the variables used in these regression models, as well as the two dependent variables.

Table 4.1 Statistics of variables used in regression analyses (N = 1026)

	N (%)	Mean (s.d.)	Min./Max.
Perceived safety of the neighbourhood		3.39 (0.92)	1 – 5
Perceived reputation of the neighbourhood		3.42 (1.02)	1 – 5
Individual and household characteristics			
Gender			
Male	465 (45.4)		
Female	557 (54.6)		
Age		44.51 (14.93)	19 – 94
Ethnicity			
Native	904 (88.1)		
Ethnic minority[1]	122 (11.9)		
Level of education[2]			
Low	218 (21.2)		
Middle	246 (24.0)		
High	562 (54.8)		
Level of Income[3]			
Low	272 (26.5)		
Middle	533 (52.0)		
High	221 (21.5)		
Tenure[4]			
Owner-occupant	626 (61,1)		
Rent	385 (37.5)		

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[1] Ethnic minorities are people who defined themselves from all ethnic groups different from Dutch.

[2] Highest completed level of education: low = primary or no education and lower vocational training; middle = secondary education, high school, and middle vocational training; high = higher vocational training and university

[3] Household income per month: low = less than € 1599; middle = € 1600 – 3300; high = higher than € 3300

[4] Owner occupant = homeowner; Rent = social or private rented dwelling

	N (%)	Mean (s.d.)	Min./Max.
Selection effects			
Current neighbourhood first choice	306 (29.9)		
Objective neighbourhood characteristics			
% Turks and Moroccans		12.00 (14.05)	0.2 – 58.7
% other non-western immigrants		6.71 (3.13)	2.36 – 12.65
Neighbourhood socio-economic status			
Low	359 (35.0)		
Middle	298 (29.1)		
High	369 (36.0)		
% of high rise buildings in NBH[5]		34.23 (27.57)	0.00 – 88.20
Subjective neighbourhood characteristics			
Satisfaction with location of NBH		4.18 (0.81)	1 – 5
Contact between neighbourhood residents		3.52 (0.99)	1 – 5
Level of collective efficacy in NBH		3.51 (0.83)	1 – 5
Level of neighbourhood attachment		3.50 (1.07)	1 – 5
Perceived neatness of NBH		3.38 (0.99)	1 – 5
Satisfaction with the NBH income composition		3.36 (0.91)	1 – 5
Satisfaction with the NBH ethnic composition		3.29 (0.95)	1 – 5
Media and Crime statistics			
Positive image of NBH by media		3.28 (1.00)	1 – 5
NBH criminal incidents (police registered)[6]		173.90 (60.26)	100.20 – 362.46
NBH youth disturbance incidents (police reg.)[7]		20.74 (1.02)	3.96 – 185.54

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[5] High rise building is defined as a residential accommodation with multiple layers and one central entrance

[6] Number of reported crimes (burglary, theft, assault, vandalism, disturbance) plus number of police registered incidents concerning disturbance and vandalism which were not reported per 1000 inhabitants

[7] Number of reported and police registered incidents of disturbance and vandalism caused by youth per 1000 inhabitants

4.2 Multiple Regression Analyses

In order to test and compare which determinants were of influence on the perceived safety and perceived reputation of the neighbourhood, separate multiple regression analyses were performed. In each model, the influence of a group of related variables on the dependent variables was tested. The results are presented in Table 4.2 and 4.3 and revealed all models to be statistically significant (p=0.000). With the inclusion of each group of variables the fit of the models improved for both dependent variables. This illustrated the addition of the variables in each model to be useful determinants in the explanation of both dependent variables. The fit of the models improved from 0.051 to 0.392 for the perceived safety, and 0.126 to 0.634 for the perceived reputation. In the final model V, almost 40 % of the variance in perceived safety, and 63% of the variance in perceived reputation was explained. The determinants used in both models were more suited to explain the variance in neighbourhood reputation than neighbourhood safety, as the R-square of all the models was consequently higher when the perceived reputation was the dependent variable.

Neighbourhood characteristics were found to be important determinants for both dependent variables. The inclusion of objective neighbourhood characteristics in Model III drastically improved the fit of the models, especially when the perceived neighbourhood reputation was the dependent variable. The strongest change in model fit for the perceived reputation showed after objective neighbourhood characteristics were added to the analysis in model III (from 0.170 to 0.504). This result was expected as research has found objective neighbourhood characteristics to be important predictors for neighbourhood reputations (Permentier et al., 2008; 2010).

This result could be explained by the inclusion of social neighbourhood characteristics (e.g. percentage of ethnic minorities, SES of neighbourhood) in Model III. As was argued, the ethnic and socio-economic build up of a neighbourhood were believed to be strong predictors of the perceived reputation of the neighbourhood, as the image (non)residents have of a neighbourhood are strongly related to this social build up. The increase in R-square in Model III provided empirical evidence of the importance of objective social neighbourhood characteristics in the explanation of the perceived reputation of the neighbourhood and supported that: "objective, contemporary neighbourhood characteristics are very good predictors of neighbourhood reputations. Social factors are especially good predictors in this respect" (Permentier et al., 2008; 61).

Next, Table 4.2 and 4.3 show the inclusion of subjective neighbourhood characteristics to significantly help in the explanation of the variance of the perceived safety and reputation of a neighbourhood, when compared to only using objective neighbourhood characteristics. The model fit increased from 0.180 to 0.386 (safety) and 0.504 to 0.595 (reputation) when subjective neighbourhood variables were added to the analyses. This was a clear indication that subjective neighbourhood characteristics were an important determinant of both studied concepts, and inclusion of these variables was useful in order to explain both dependent variables.

Especially for the perceived safety the fit of the model dramatically improved with the inclusion of subjective neighbourhood characteristics. Subjective neighbourhood characteristics were expected to be of importance in the explanation of the perceived safety based on previous research (e.g. Shaw and McKay, 1969; Sampson and Raudenbush, 2004; Wittebrood and van Dijk, 2007) and Table 4.2 provided empirical evidence to support these expectations. As research has argued, feelings of safety and fear of crime are to a large extent subjective assessments and judgements of security, based on multiple aspects (e.g. Lee, 2009; Koskela, 2009). Therefore, it was expected that the subjective judgment on neighbourhood characteristics would influence the perceived safety of the neighbourhood, as is supported by the results in Table 4.2.

Finally, the addition of variables measuring the effect of media and crime statistics improved the fit of the model for both dependent variables, although the improvements for the perceived safety were

marginal. However, the increase of the R-square indicated the addition of these variables to help in the explanation of the two studied subjective neighbourhood characteristics. Therefore, variables on crime statistics and media influence proved to be useful determinants when explaining the perceived safety and reputation of a neighbourhood.

4.2.1 Model I

Perceived safety

Model I tested the effect of individual and household characteristics on the perceived safety of a neighbourhood. As can be seen from Table 4.2, age, level of education, and tenure all showed significant effects on the perceived safety of the neighbourhood. Tenure showed a moderate positive effect on the perceived safety of the neighbourhood ($p<0.10$). This is in line with expectations and previous research (e.g. Permentier et al. 2010; Kleinhans and Bolt, 2010), as home-owners were expected to give higher ratings to subjective neighbourhood characteristics as a result of cognitive processes. Homeowners have made more investments in their dwelling (and neighbourhood) and were therefore more satisfied with their living environment. As a result, they gave a higher rating to the perceived safety of the neighbourhood, as was supported by the analysis.

Age showed a slight positive effect on the perceived safety of a neighbourhood, indicating that higher age groups perceive their neighbourhood as safer. Those of higher age were expected to be less exposed to, and avoid more dangerous situations. Therefore, higher age groups feel less afraid, and thus perceive more safety in general. The results confirmed these expectations and supported previous findings (e.g. Pain, 2001). The level of education and level of income were added to test if the safety of a neighbourhood is perceived differently by individuals of different socio-economic status (SES). Individuals of higher SES were expected to perceive more safety because of avoidance and exposure. People of higher SES are less exposed to crime and vice and are also more able to avoid crime and unsafe situations, as they have more resources to do so (see for example Low, 2004). As expected, the results showed the level of education to positively influence the perceived safety of a neighbourhood. However, household income showed unexpected results, as the level of household income did not reveal a significant effect on the perceived safety of the neighbourhood.

Finally, gender and ethnicity did not show any significant results. These results were surprising as previous studies have repeatedly discussed relationships between ethnicity, gender, and fear of crime (e.g. Smith, 1988; Brooks Gardner, 1990; Hough, 1995; Smith and Torstensson, 1997; Pain, 2001). Especially for gender this was a surprising result, as women were believed to perceive less safety within their direct living environment as a result of 'ecological vulnerability' (Smith and Torstensson, 1997) and thus also perceive less safety within the neighbourhood. However, both gender as ethnicity were not statistically significant in any of the models, illustrating that gender and ethnicity have no direct effect on the perceived safety of a neighbourhood.

Perceived reputation

As becomes clear from Table 4.3, all individual and household characteristics used in the regression analysis in model I were of significant effect, except for ethnicity and the group middle education and income level. Ethnicity was expected to have a direct negative effect on the perceived reputation of the neighbourhood, as ethnic minorities often live in neighbourhoods with unfavourable neighbourhood characteristics. As a result, they live in neighbourhoods with a lower perceived reputation, and thus ethnicity was expected to have a negative effect on the perceived reputation of a neighbourhood. This result was however not found.

TABLE 4.2

TABLE 4.3

Gender and age were both found to have a significant effect on the perceived reputation of a neighbourhood. Females and older age groups were both expected to give higher ratings to the perceived reputation of a neighbourhood, because of preferences (gender) and differences in live-cycle stages (age), which was supported by the results. Tenure showed a significant positive effect on the perceived reputation of a neighbourhood (p<0.01), as was also found by Permentier et al. (2009). As with the perceived safety, the reputation of a neighbourhood was expected to receive a higher rating by homeowners as a result of cognitive processes.

Furthermore, the results showed education and income level to be of significant influence on the perceived safety of a neighbourhood, but only for the highest groups (p<0.01). As with the perceived safety, the individual level of SES was expected to have a positive effect on the perceived reputation of a neighbourhood as people of higher SES had more resources to choose a (good) neighbourhood. These results provided empirical evidence to support this relationship and coincided with the hypothesis and previous research (e.g. Wang and Li, 2004; Niedomysl, 2008).

Comparison of both models

Age, level of education, and tenure all had a significant positive effect on both dependent variables. Homeowners and those of higher age and education have more resources to choose between neighbourhoods, and will thus choose neighbourhoods with a higher perceived safety and reputation. Ethnicity was of no significant effect on both subjective neighbourhood characteristics, which opposed the expectations made in this research. Gender was found to have a significant effect on reputation, while no effect was found for safety. This result was surprising, as research on safety has largely emphasized differences according to gender (e.g. Smith and Torstensson, 1997; Pain, 2001) while research on reputations showed contradicting results concerning this relationship (compare Niedomysl, 2008 and Permentier et al., 2010).

In sum, for both the perceived safety as the perceived reputation of a neighbourhood, individual levels of SES had a positive effect, especially for individuals at the high end of the spectrum. These effects were explained as higher SES groups had more resources to choose a safe or good reputation neighbourhood. Therefore, they were also less exposed to crime and disorder, which further influenced their perception of both dependent variables. The question however remained if these individual characteristics proved to be of importance after controlling for selection effects and neighbourhood characteristics. These issues will we dealt with further on.

4.2.2 Model II

Perceived safety

In model II the effect of specifically choosing a neighbourhood (selection effects) on both dependent variables was tested. The results showed specifically choosing to live in a certain neighbourhood to have a direct positive effect on the perceived safety of a neighbourhood (p<0.01) as was expected. Those specifically choosing a neighbourhood have chosen this neighbourhood because it suits their preferences. As the neighbourhood suits their preferences, they were more satisfied with certain subjective neighbourhood characteristics, and thus also with the perceived safety.

Except for the level of education (which remained of significant importance through all models) none of the individual and household characteristics from model I were of significant effect after controlling for selection effects. The effects of age and tenure on the perceived safety of a neighbourhood were thus channelled through selection-effects. That is, those of higher age and owner-occupants were more likely to specifically choose a certain neighbourhood. Individuals of higher age had more resources to specifically choose a neighbourhood, and owner-occupants will be more likely to do so as they will buy a house in a neighbourhood that suits their preferences. Therefore, when taken into consideration that individuals of higher age and homeowners often specifically choose their neighbourhood, the results

showed the effects found in Model I to disappear. Model II thus provided empirical evidence that homeownership and age does not have a direct effect on the perceived safety of a neighbourhood, but this effect is indirect (or channelled through) selection effects.

Perceived reputation

As with perceived safety, specifically choosing a neighbourhood had a direct and significant positive effect on the perceived reputation of the neighbourhood ($p<0.01$). As explained above, this was the result of the relationship between preferences and neighbourhood satisfaction, and the result confirmed the expectations made based on other research (e.g. Permentier et al., 2007; van Ham and Feijten, 2008). However, the addition of controlling for selection effects yielded no major changes in the variables used in model I, which was expected as those of higher income and age are more prone to specifically select a neighbourhood. The results showed the addition of selection effects to not diminish the effect of individual and household characteristics on the perceived reputation of a neighbourhood, as they remained to have a direct effect.

Comparison of both models

Selection effects were found to have a direct positive influence on individual perceptions of the reputation as well as the safety of the neighbourhood. The relationship between selecting a neighbourhood based on preferences, increased neighbourhood satisfaction, and the appreciation of subjective neighbourhood characteristics can be seen as a major explanation for this finding (van Ham and Feijten, 2008). Furthermore, after controlling for selection effects, the effects of individual characteristics disappeared in the analyses for the perceived safety, while these remained significant determinants for the perceived reputation. Those of higher age, income, and homeowners were thus more positive about the perceived safety of a neighbourhood as a result of their selection of this neighbourhood, while this effect was not found for the perceived reputation.

4.2.3 Model III

Perceived safety

In model III objective neighbourhood characteristics were added to the analysis. Table 4.2 shows the percentage of Turks and Moroccans within the neighbourhood to have a strong negative effect on the perceived safety of a neighbourhood ($p<0.01$). As has been stated, Turks and Moroccans were the biggest minority groups within the research area. The presence of these groups within a neighbourhood was expected to have a significant negative effect on the perceived safety, as the presence of minorities leads to more uncertainties and anxieties for neighbourhood inhabitants (racial threat theory) and these groups were associated with problems and 'social ills' (racial proxy thesis). The results have clearly underlined the expectations and theories, and showed the percentages of Turks and Moroccans within the neighbourhood to have a negative effect on the perceived safety. However, the presence of other non-western immigrant groups was not found to significantly influence the perceived safety of a neighbourhood, while the same effect was expected.

Especially interesting to notice was that the effect of the percentage of Turks and Moroccans was significant, even while the model controlled for the SES of the neighbourhood. Minority groups are often overrepresented, and predominantly live in neighbourhoods with a low socio-economic status. Therefore, it has been debated if the presence of minority groups has direct effects on feelings of safety, or if these effects are related to the SES of these neighbourhoods. As model III controlled for SES of the neighbourhood and the results showed a significant effect, it could be concluded that the percentage of ethnic minorities had a direct effect on the perceived safety of a neighbourhood, despite its socio-economic status.

Next, the results also revealed a significant positive effect of the socio-economic status of a neighbourhood on its perceived safety (both groups: p<0.01). As lower SES neighbourhoods are often associated with more disorder, crime, and vice, this relationship was expected. The SES of the neighbourhood is however closely related to the presence of minority groups within the neighbourhood and individual socio-economic status of its inhabitants. As Model III controlled for these other characteristics and the effect of the SES of the neighbourhood remained significant, it could be concluded that the SES of the neighbourhood had a direct positive effect on the perceived safety of the neighbourhood, regardless of the ethnic build up or individual levels of socio-economic status.

The percentage of high rise buildings within the neighbourhood showed no significant effect on the perceived safety of a neighbourhood. Based on the defensible space theory (Newman and Franck, 1982) the percentage of high rise buildings was expected to have a negative effect on the perceived safety. This theory states the physical design of the neighbourhood to be of effect on the perceived safety, with more large and high rise living complexes leading to less perceived safety as a result of a lack of social interaction and control for inhabitants of these living complexes. However, the results did not show a significant relationship, thus solely the percentage of high rise buildings was proven to have no direct effect on the perceived safety of a neighbourhood.

The addition of objective neighbourhood characteristics to the analysis showed no significant changes for the determinants tested in the previous two models. After controlling for neighbourhood characteristics, the effect of the level of education remained significant, indicating the individual level of education to have a direct effect on the perceived safety of a neighbourhood despite different neighbourhood characteristics. Furthermore, as those specifically selecting a neighbourhood were expected to select neighbourhoods with more favourable neighbourhood characteristics, selection-effects were expected to disappear after controlling for objective neighbourhood characteristics. Even though neighbourhoods that were specifically chosen had more favourable objective neighbourhood characteristics, the results thus indicated selection-effects to still have a positive direct effect on both dependent variables. This can be explained as homeowners remained more satisfied with subjective neighbourhood characteristics, as a result of cognitive processes.

Perceived reputation

As reputations are mostly formed through information about objective neighbourhood characteristics, previous research has found objective neighbourhood characteristics to be important determinants for the reputation of a neighbourhood (e.g. Wassenberg, 2004; Skifter Andersen, 2008). The results displayed in Table 4.3 provided empirical evidence to support these findings, as all of the variables added in model III were found to have a significant effect on the reputation of the neighbourhood. Only the percentage of high rise buildings within the neighbourhood was found to have no significant effect on the perceived reputation. This specific aspect of building type and style was thus not proven to influence the perceived reputation.

The percentages of Turks and Moroccans (p<0.01), as well as the percentage of other non-western minority groups (p<0.05), had a significant negative effect on the perceived reputation of a neighbourhood. As stated by the racial proxy thesis (Harris, 1999), minority groups are frequently associated with crime, disorder, and poverty. As reputations are closely linked to images of the status and disorder within the neighbourhood (e.g. Permentier, 2009), neighbourhoods with high percentages of minority groups were expected to have a lower perceived reputation, The results clearly confirmed this expectation and supported the hypotheses concerning this relationship.

The status of a neighbourhood is an important aspect for the perceived reputation of a neighbourhood (Permentier et al., 2008). As the SES of a neighbourhood can be seen as an apparent indicator of the status of a neighbourhood, this SES was believed to be of significant influence on the reputation. The results presented in Table 4.3 confirmed these expectations, as the socio-economic status of the

neighbourhood was found to have a significant positive effect on the perceived reputation of a neighbourhood (both groups; p<0.01). This finding further supported the findings of previous research (e.g. Wassenberg, 2004; Permentier et al, 2007; Skifter Andersen, 2008).

Both the socio-economic status as objective levels of the ethnic build up of the neighbourhood had a direct effect on the perceived reputation. Both determinants were believed to be related, and therefore the independent effect of both determinants has been debated. As both these determinants were added within the same model, the model controlled for this relationship. From the results it could be concluded that the ethnic and socio-economic build up of a neighbourhood both affected the perceived reputation individually, as both were found to be statistically significant.

After controlling for objective neighbourhood characteristics, all individual characteristics were no longer of significant effect, except for tenure and ethnicity. The relationship between the gender, age, and income and education level of individuals were thus channelled through objective neighbourhood characteristics. This is logically explained as people of higher age, education and income level are more prone to live in neighbourhoods with a high SES, because they have more resources to choose such a neighbourhood. This result confirmed the hypotheses that the effect of the individual level of education and income would disappear after controlling for objective neighbourhood characteristics. However, while the effect of tenure was expected to disappear after controlling for neighbourhood characteristics, tenure continued to have a significant direct effect on the perceived reputation of the neighbourhood as a result of the relationship between tenure and the satisfaction with subjective neighbourhood characteristics.

While the effect of ethnicity was not significant in the first two models, a significant positive effect was found in model III. Although this seemed to be an unexpected result, it actually confirmed expectations. Although no significant effect was found in Model I, it was expected that being of ethnic minority would have a direct negative effect on the perceived reputation of the neighbourhood. This was expected, as those belonging to an ethnic minority are more prone to live in a neighbourhood with a low reputation, and thus give lower ratings to the reputation of the neighbourhood. However, when this relationship was taken into consideration, it was expected that ethnic minorities rate the reputation of their neighbourhood more positively, because of "cognitive dissonance reduction" (Permentier et al., 2010; 72). Ethnic minorities often live in low reputation neighbourhoods because of a lack of choice. Because they are less able to choose, they are more easily satisfied with their choice, and thus give higher ratings to subjective neighbourhood characteristics. Therefore, when neighbourhood characteristics were controlled for, ethnicity was expected to have a positive effect on the perceived reputation of a neighbourhood, which was supported by the results.

Comparison of both models

As expected from the racial threat and racial proxy thesis, the percentage of Turks and Moroccans within the neighbourhood was found to have a significant negative influence on both the perceived safety and reputation of the neighbourhood. The percentage of other non-western immigrants was only significant for the perceived reputation. Furthermore, the SES of the neighbourhood was found to positively influence both dependent variables. As model III added both the ethnic build up and the SES of the neighbourhood at the same time, their independent effects could be tested as both determinants were controlled for. The results clearly indicated that both the ethnic build up, as the SES of a neighbourhood, had a direct and significant influence on both of the studied dependent variables.

The addition of objective neighbourhood characteristics diminished the effect of most of the individual determinants on the perceived reputation (except for tenure and ethnicity), while these effects had already disappeared for the perceived safety in model II. Individual characteristics thus had an indirect effect on the perceived reputation of a neighbourhood through neighbourhood characteristics, mostly because individual characteristics were related to the SES of the neighbourhood individuals live in.

Specifically choosing a neighbourhood remained to have a positive direct effect, as cognitive processes and investments in dwelling and neighbourhood cause homeowners to be more satisfied with their living environment and as a result also with both studied neighbourhood characteristics

4.2.4 Model IV

Perceived safety

According to the social disorganisation theory (Shaw and Mckay, 1969) social contacts between neighbourhood residents were believed to have a positive direct effect on the perceived safety of a neighbourhood. Contacts between neighbours can remove uncertainties and anxieties about other neighbourhood inhabitants, which cause feelings of fear and insecurity (as also explained by the racial threat theory). Furthermore, social contacts between neighbours were believed to improve social control and neighbourhood attachment. Neighbourhood attachment could in turn influence the willingness to improve the liveability of the neighbourhood, which could have a positive effect on the perceived safety of the neighbourhood. The results in Table 4.2 provided empirical evidence to support these mechanisms, as both the satisfaction with the contact between neighbourhood residents ($p<0.01$) as neighbourhood attachment ($p<0.05$) had a significant positive effect on the perceived safety of the neighbourhood.

The level of collective efficacy was also expected have a significant effect on the perceived safety of the neighbourhood. This effect was however not found. Collective efficacy could be influenced by the determinants social contacts and neighbourhood attachment. The effect of collective efficacy could therefore be indirect through these two determinants and therefore no direct effect of collective efficacy was found. However, further analysis (not shown) in which social contacts and neighbourhood attachment were removed from the regression did not show a significant effect of collective efficacy on the perceived safety (beta= 0.043 sig= 0.128). It could therefore be concluded that collective efficacy had no direct significant effect on the perceived safety of a neighbourhood in this present research, which contradicted the expectations.

According to the broken windows theory, minor forms of physical disorder in the neighbourhood can affect its perceived safety, as disorder would enhance more serious criminal activity and negatively influence the image of a neighbourhood (Wilson and Kelling, 1982). The results showed strong empirical evidence to support this theory, as the satisfaction with the perceived neatness of the neighbourhood was found to have a strong positive effect on the perceived safety of the neighbourhood ($p<0.01$). Critics have however claimed that it is not physical, but social disorder that influences the perceived safety of the neighbourhood (e.g. Sampson and Raudenbush). Table 4.2 also offered evidence to support this critique, as the satisfaction with the ethnic composition (an indicator of social disorder), was found to have a positive effect on the dependent variable ($p<0.01$). This effect was however not found for the satisfaction with the composition of the income level of neighbourhood inhabitants.

Of all the variables tested in model IV, the effect of the perceived reputation was the strongest (Beta=0.291). The results revealed a clear and significant effect of the perceived reputation of the neighbourhood on the perceived safety of the neighbourhood, even after controlling for neighbourhood characteristics ($p<0.01$). A higher perceived reputation leads to more perceived safety within the neighbourhood, even when the relationships with subjective and objective neighbourhood characteristics were accounted for. This result provided strong empirical evidence of the expectations made in this research and revealed the reputation of a neighbourhood to significantly influence, and to be a useful determinant in the explanation of the variance in the perceived safety of a neighbourhood.

Specifically selecting a neighbourhood was no longer of direct influence on the perceived safety when subjective neighbourhood characteristics were controlled for. As has been argued, specifically

selecting a neighbourhood could lead to a higher level of neighbourhood satisfaction, and therefore a more positive view on multiple subjective neighbourhood characteristics (as for example its perceived safety). When other subjective neighbourhood characteristics were controlled for in model IV, selection effects were found to be indirect through satisfaction with the other subjective neighbourhood characteristics entered in model IV. Selecting a neighbourhood thus influenced these subjective neighbourhood characteristics, which in turn influenced the perceived safety. This result further revealed the strong influence of selection effects on subjective neighbourhood characteristics.

Both the effect of the percentage of Turks and Moroccans, and the SES of the neighbourhood disappeared in model IV by the addition of the subjective neighbourhood characteristics. The direct effect of these objective neighbourhood characteristics became indirect via the subjective neighbourhood characteristics. This can be explained as these objective characteristics were of influence on some of the subjective neighbourhood characteristics, mainly the satisfaction with the ethnic build-up and the reputation of the neighbourhood. The percentage of ethnic minorities and SES of the neighbourhood influenced the reputation and the satisfaction with the ethnic build up of a neighbourhood, which in turn affected the level of perceived safety. Therefore, in model IV, the direct relationship between these objective characteristics and the perceived safety disappeared.

The effect of individual tenure status became significant and negative after controlling for subjective neighbourhood characteristics ($p < 0.05$). This result indicated homeowners to be less positive about the perceived safety of the neighbourhood than those renting a dwelling, after controlling for subjective neighbourhood characteristics. As has been argued, homeowners were believed to be more attached to the neighbourhood and to be more positive about multiple subjective neighbourhood characteristics (as for example the perceived safety). However, when subjective neighbourhood characteristics and neighbourhood attachment were controlled for in model IV, it was revealed that being a homeowner had a negative effect on the perceived safety of the neighbourhood. This result therefore provided empirical evidence of homeowners to only be more positive about the perceived safety of the neighbourhood, as a result of more neighbourhood attachment and satisfaction with other subjective neighbourhood characteristics, and revealed on opposite relationship when these relationships were taken into account.

Perceived reputation

Almost all of the subjective neighbourhood characteristics entered were of significant effect on the perceived reputation of the neighbourhood. Only the subjective measurement of the ethnic build up of the neighbourhood and the location of the neighbourhood had no significant effect. This last result was surprising, as previous research had found objective measurements of the location of the neighbourhood in relation to the city centre to influence the perceived reputation of a neighbourhood (Costa Pinto 2000). However, the results provided in Table 4.3 showed a subjective measurement of the location of a neighbourhood to not influence the perceived reputation of this neighbourhood.

Residents who are more attached to their neighbourhood were believed to feel more at home and to be more likely to participate in neighbourhood activities. When neighbourhood problems were more actively resolved through actions and activities by neighbourhood residents, a more positive connotation with the reputation of the neighbourhood was expected. Therefore, neighbourhood attachment and the level of collective efficacy were expected to have a positive effect on the perceived reputation of a neighbourhood. The result provided empirical evidence to support these mechanism as both neighbourhood attachment as the level of collective efficacy (both; $p < 0.01$) showed a significant positive effect on the dependent variable

Surprisingly, social contacts between neighbours within the neighbourhood showed a negative effect in the analysis ($p < 0.05$). This result indicated that more satisfaction with the contact with neighbours resulted in a lower level of perceived reputation. This result contradicted the hypothesis made, as an

opposite effect was expected. This result was hard to explain. The only logical explanation for this result could be that neighbours often discuss neighbourhood problems in their day to day interactions. Therefore, contacts between neighbours could influence one's image about the neighbourhood in a negative sense, as problems are overrepresented in these interactions. Therefore, more contacts between neighbours could thus lead to a lower perceived reputation of the neighbourhood.

The level of perceived neatness of the neighbourhood proved to be a significant determinant of the perceived reputation of the neighbourhood (p<0.01). Furthermore the satisfaction with the income composition of the neighbourhood was also found to influence the reputation of a neighbourhood (p<0.01). Both results supported the expectations and assumptions that both physical (neatness) as well as forms of social disorder (income composition) affect the perceived reputation of a neighbourhood. These results revealed the mechanisms discussed in the broken windows theory (Wilson and Kelling, 1982) and its critics (e.g. Sampson and Raudenbush, 2004) to also be of effect in the explanation of the perceived reputation of a neighbourhood. However, only satisfaction with the income composition of the neighbourhood was found to be statistically significant, while the same was also expected for the ethnic composition.

The analysis provided clear evidence of the perceived safety of a neighbourhood to be a determinant of the perceived reputation of a neighbourhood. As Table 4.3 shows, the perceived safety of a neighbourhood was found to have a significant positive effect on the perceived reputation of a neighbourhood, after controlling for objective and subjective neighbourhood characteristics (p<0.05). The findings thus supported the hypothesis made in this present research that despite of objective and other subjective neighbourhood characteristics, the perceived safety of a neighbourhood has a direct effect on the perceived reputation of a neighbourhood.

All of the objective neighbourhood characteristics remained significant after controlling for subjective neighbourhood characteristics, except for the percentage of other non-western immigrants. These results indicated that objective neighbourhood characteristics remain important determinants of the perceived reputation of a neighbourhood, even when subjective characteristics were controlled for. This result further underlined the importance of objective neighbourhood characteristics on the reputation of a neighbourhood (see also Permentier et al., 2008: Skifter Andersen, 2008). Finally, the effect of tenure disappeared after controlling for subjective neighbourhood characteristics. This effect became indirect through the subjective neighbourhood characteristics, as homeowners were more likely to be positive about these subjective neighbourhood characteristics as has been thoroughly explained.

Comparison of both models

A comparison of the determinants used in model IV provided some interesting results. The perceived physical disorder within the neighbourhood was proven to be a significant predictor for the safety as well as the reputation of a neighbourhood, even after controlling for other neighbourhood characteristics. Furthermore, the satisfaction with the income and ethnic build up of the neighbourhood (which revealed an indication of the social order within the neighbourhood) was found to also have a significant effect on the perceived reputation and perceived safety of the neighbourhood. These results supported both the broken windows theory (Wilson and Kelling, 1982) as critique on this theory (e.g. Sampson and Raudenbush, 2004; Franzini et al., 2008) as it could be concluded that both physical as well as indicators for social disorder were important determinants for the perceived safety and reputation of the neighbourhood. However, as has been explained in chapter 3, the results with respect to the social disorder have to be interpreted with some caution as social disorder within the neighbourhood was only partly measured.

Table 4.2 and 4.3 both show a significant effect of the perceived reputation on the perceived safety, and vice versa. These results indicated both concepts to have a significant effect on each other while

objective and subjective neighbourhood characteristics were controlled for, and thus supported the direct relationship between both concepts as was hypothesized in this research. Furthermore, these results revealed both subjective neighbourhood characteristics to be useful determinants in explaining the perceived safety and reputation of a neighbourhood. Contrary to expectations, the results did indicate the effect of the reputation on the perceived safety (Beta= 0.291; p<0.01) to be considerably stronger than the effect of the safety on the reputation of the neighbourhood (Beta= 0.057; p<0.05), while the opposite was expected. This could however be explained as the effect of objective neighbourhood characteristics on the perceived safety were largely channelled through the perceived reputation.

Model IV also provided some differing results. Although contact between neighbours was found to have a significant positive effect on the perceived safety, this effect was found to be negative for the reputation of a neighbourhood. The level of collective efficacy did not influence the perceived safety of the neighbourhood, while it was found to be an important determinant for the perceived reputation. These results were not expected, as both determinants were expected to have the same effect on the two dependent variables. Neighbourhood attachment however was found to have a significant positive effect on both of the dependent variables. Attachment to the neighbourhood leads to more participation and satisfaction with the neighbourhood, which resulted in a higher rating for both studied dependent variables.

A final interesting result was that after controlling for subjective neighbourhood characteristics, the effects of the objective neighbourhood characteristics in model III were no longer significant for the perceived safety, while these variables remained a significant determinant for the perceived reputation. The effects of objective neighbourhood characteristics were thus indirect through the subjective neighbourhood characteristics for perceived safety, while objective characteristics remained to have a direct effect on the perceived reputation. This result provided more empirical evidence for objective neighbourhood characteristics to be the most important determinants for the perceived reputation, while subjective characteristics were found to be of more importance for the perceived safety.

4.2.5 Model V

Perceived safety

In the final model, variables measuring the effect of media and crime statistics were added to the analysis. A positive image portrayed by media about the neighbourhood did not have a significant positive effect on the perceived safety, although this relationship was expected. However, the effect of crime statistics did provide a significant result. The level of police registered crime within the neighbourhood was found to have a significant negative effect on the perceived safety of the neighbourhood (p<0.01). Registered crime by police (burglary, assaults, vandalism etc) within the neighbourhood had a direct effect on the individual level of perceived safety within the neighbourhood, as higher rates represent more crime within the neighbourhood, which will eventually lead to less perceived safety. Records on youth disturbance however, did not provide any significant results on the perceived safety, although this relationship was expected.

Perceived reputation

In model V, the number of police registered incidents of youth disturbance was found to have a significant negative effect on the perceived reputation of a neighbourhood (p<0.01). Youth disturbance can be seen as a form of disorder within the neighbourhood. A higher level of such disorder therefore led to a lower perceived reputation of the neighbourhood. Objective levels of actual crime (burglary, theft, assault etc.) within the neighbourhood did not affect the reputation, indicating that this

information does not affect personal perceptions of a neighbourhoods' reputation, although this was expected.

Reports by media proved to have a significant effect on the perceived reputation of a neighbourhood ($p<0.01$), as was expected. Representations about neighbourhoods by media were of significant importance, as reputations are largely formed based on information about the neighbourhood through media. This result emphasised the significant influence media can have on the construction of reputations of neighbourhoods, as has been suggested by academics (e.g. Wassenberg 2004; Permentier, 2008). This research has however provided empirical evidence to support these assumptions and proved a relationship between media representations and the perceived reputation of a neighbourhood.

Comparison of both Models

As can be seen from Table 4.2 and 4.3, the police registered crime incidents in the neighbourhood had a negative effect on the perceived safety, while no effect was found for the perceived reputation. Incidents concerning youth disturbance however, were found to have a negative effect on the perceived reputation, while no effect was found for the perceived safety. The perceived safety of a neighbourhood was thus influenced by actual levels of crime within a neighbourhood, while the reputation was influenced by visible forms of disorder (in this case youth disturbance). These results revealed a difference between both determinants, as levels of crime are naturally of more importance for safety, while visible signs of disorder were thus more important for the perceived reputation.

Finally, the image of the neighbourhood as portrayed by the media showed to have a significant negative effect on the perceived reputation of the neighbourhood, while no relationship was found for the perceived safety. This result revealed information sources through media to be of significant effect in the creation of a reputation, while images of the perceived safety of a neighbourhood were not directly influenced by these sources of information. This could be explained, as the perceived safety of a neighbourhood is a more complex judgement based on multiple determinants and personal experiences with safety, while reputations are more easily formed based on information about neighbourhood characteristics and through representations by the media.

4.3 Summary of the Main Determinants

Neighbourhood characteristics were found to be the most important determinants for the perceived safety and reputation of the neighbourhood. Especially the level of physical disorder was found to be an important determinant for both these dependent variables. Furthermore, neighbourhood attachment and satisfaction with the social composition of the neighbourhood influenced both subjective neighbourhood characteristics. Next, the results presented in Table 4.2 and 4.3 revealed individual characteristics (except for the level of education for perceived safety) to have no direct effect on the two dependent variables. These results revealed individual characteristics to have an indirect effect on the perceived safety and reputation of a neighbourhood through neighbourhood characteristics, as those of higher age, income, and homeowners are more prone to live in neighbourhoods with favourable neighbourhood characteristics.

The analysis clearly revealed a direct effect of the perceived safety on the reputation of a neighbourhood, and vice versa. This research has argued that as both subjective neighbourhood characteristics represent a certain image of a neighbourhood, they influence each other and could therefore be used as determinants of each other. The results provided empirical evidence to support this mutual influence and relationship, and showed the reputation and safety of neighbourhood to be useful in the explanation of the variance of these subjective neighbourhood characteristics. Furthermore, the addition of the reputation to the analysis of the perceived safety of a neighbourhood

revealed objective neighbourhood characteristics to have an indirect influence on perceptions of safety through this reputation.

While both objective and subjective neighbourhood characteristics influenced the perceived safety and reputation of the neighbourhood, the biggest difference in the determinants of both dependent variables was found by comparing the addition of objective and subjective neighbourhood characteristics. Objective neighbourhood characteristics were found to be of more importance in explaining the perceived reputation of a neighbourhood, while subjective characteristics were of more importance in the explanation of the perceived safety. As has been argued, the reputation of the neighbourhood is largely based on information on objective neighbourhood characteristics by (non)residents (e.g. Permentier et al, 2008). Information on these characteristics, like the social build up of the neighbourhood were therefore important determinants of the perceived reputation. The perceived safety however, is by definition a more subjective assessment. Therefore, subjective neighbourhood characteristics were of more importance in the explanation of the perceived safety of a neighbourhood, when compared to objective neighbourhood characteristics.

5. Conclusion and Discussion

This research was set out to investigate the differences and similarities between two subjective neighbourhood characteristics which have received a vast amount of academic interest independently, but never simultaneously (e.g. Hough, 1995; Koskela, 1999; Day, 2001; Pain, 2001; Tsfati and Cohen, 2003; Wassenberg, 2004; Vanderveen, 2006; Permentier et al., 2007; Eitle and Taylor, 2008; Hopkins and Smith, 2008; Jackson, 2009). The perceived safety and perceived reputation of the neighbourhood were combined in this research to attain more academic knowledge about the determinants on both of these characteristics, but more importantly, to derive knowledge about the relationship and differences between these two studied concepts. Furthermore, combining both of these subjective neighbourhood characteristics in this present research made it possible to analyze if both neighbourhood characteristics were not just related but also determinants of each other. The main research question this present research therefore tried to answer was:

What are the determinants of the perceived safety and perceived reputation of a neighbourhood, and what is the effect of both characteristics on each other?

More knowledge about the determinants and relationship of the perceived safety and reputation of a neighbourhood could provide important insights, from both a scientific as a societal point of view. Research has shown increasing interest in the effects of subjective neighbourhood characteristics on processes of neighbourhood decline, residential preferences (e.g. Niedomysl, 2008; Skifter Andersen, 2008) and their relation to liveability issues within the neighbourhood (e.g. Low, 2004; Wittebrood and van Dijk, 2007). Therefore, a better understanding of the determinants of the two studied subjective neighbourhood characteristics and their mutual relationship could provide further insights in such relationships, but also be useful for urban policy. This section will discuss the findings of this present research and the implications for urban policy and future research.

5.1 Determinants of the perceived safety

Before the differences and similarities between the perceived safety and reputation could be discussed, the determinants of both subjective neighbourhood characteristics needed to be established. Therefore, two separate linear regression models were used, and the main conclusions from these analyses will be discussed below. Firstly, the determinants of the perceived safety of a neighbourhood will be elaborated on by answering the following question:

What are the determinants of the perceived safety of a neighbourhood?

Based on previous research and influential theories like the racial threat and the racial proxy thesis, the presence of ethnic minorities within the neighbourhood was believed to have a significant negative effect on the perceived safety of the neighbourhood (e.g. Hough, 1995; Harris, 1999; Pain, 2001; Eitle and Taylor, 2008; Hopkins and Smith, 2008; Day, 2009). According to the racial proxy thesis, ethnic minorities are associated with disorder, crime and vice, and therefore have a negative influence on perceptions of safety within the neighbourhood (Harris, 1999). Furthermore, as the racial threat theory argues, ethnic minorities are distinctively different than natives (based on for example religion, culture, colour of the skin), and what is different causes fear and anxiety, which results in a lower level of perceived safety in the neighbourhood (Eitle and Taylor, 2008). Therefore, the ethnic build up was considered to be an important determinant of the perceived safety of the neighbourhood.

However, from the results it could be concluded that the ethnic build up of a neighbourhood did not have a direct effect on the perceived safety, but an indirect effect through its influence on subjective neighbourhood characteristics. The reputation of a neighbourhood was found to significantly influence the perceived safety, and objective neighbourhood characteristics influence this reputation. Because minorities are feared, different, or associated with disorder, their presence negatively affects the image

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and status of the neighbourhood, causing the reputation to become more negative. Through this reputation, the ethnic and socio-economic build up of a neighbourhood have an indirect effect on the perceived safety of a neighbourhood, which revealed new insights in the relationship between the ethnic composition of the neighbourhood and its perceived safety.

Subjective neighbourhood characteristics were the most important determinants of the perceived safety of a neighbourhood. Next to the reputation, the level of physical and social disorder were important determinants of the perceived safety. As has been argued in the broken windows theory (Wilson and Kelling, 1982) physical disorder within the neighbourhood is a visual cue for (non)residents of deterioration and decline within the neighbourhood. This disorder portrays the image that social norms and control within the neighbourhood will be low, and therefore leads to suggest that misbehaviour is tolerated and crime will be more prevalent within the neighbourhood. Critics of the broken windows theory have however argued that not physical, but social disorder leads to a lower perceived safety within the neighbourhood (e.g. Sampson and Raudenbush, 2004). As the satisfaction with the ethnic build up of a neighbourhood (which can be seen as an indicator of the social order within the neighbourhood as more satisfaction resembles more social order) and the neatness of the neighbourhood (an indicator of physical disorder) had a direct effect on the perceived safety, it could be concluded that actually both physical as well as social disorder are determinants of the perceived safety of the neighbourhood.

The importance of subjective neighbourhood characteristics on perceptions of neighbourhood safety can be explained as the perceived safety of a neighbourhood is by definition a subjective assessment (Lee, 2009). As has been argued, perceptions of safety are not always rational (e.g. Pain, 2001) but dependable on feelings of security, anxiety, and perceptions of disorder. These perceptions and feelings are all based on subjective assessments, and therefore the perceived safety of a neighbourhood is by nature subjectively based. Furthermore it has been shown that satisfaction with a certain subjective neighbourhood characteristics generally leads to a higher rating of other subjective neighbourhood characteristics (e.g. Austin et al., 2002; Williams and Kitchen, 2010). Neighbourhood residents that are satisfied with a certain subjective neighbourhood characteristic will be more likely to be satisfied with other subjective neighbourhood characteristics, as a positive assessment of one result in a positive assessment of the other.

Next to subjective neighbourhood characteristics, the individual level of education was found to be an important determinant of the perceived safety of a neighbourhood. Even when accounted for the fact that higher educated often live in neighbourhoods with favourable neighbourhood characteristics, higher educated people feel safer within their neighbourhood, as a direct effect was found in all the models. This result can be explained as lower educated are found to have a higher change to become a victim of crime (e.g. Lavrakras, 1982; Pain, 1997). Both in private as in public space, lower educated people are more often the victim of (domestic) violence, burglary, rape, or assaults, and victimisation has been proven to be an important determinant for levels of safety and fear of crime (see for example Hough, 1995; Pain, 1997; Austin et al., 2002). Unfortunately, personal victimisation (or the fear of becoming one) could not be controlled for in this study, as the data did provide such information. It can therefore be suggested that differences in victimisation based on education level can explain the variances in the perceived safety of the neighbourhood based on the level of education.

Based on the social disorganisation theory (Shaw and Mckay, 1969), social contacts and neighbourhood attachment were expected to positively influence the perceived safety of a neighbourhood. Social contacts lead to familiarity with neighbours, and can therefore take away uncertainties and anxieties which cause fear and insecurity. Furthermore, social contacts can enhance social control, which can enhance the liveability and security of the neighbourhood as misbehaviour is addressed and resolved when the level of social control rises. Furthermore, residents who feel more attached to the neighbourhood, are more familiar with the neighbourhood (taking away insecurities), and are more willing to participate in neighbourhood activities. As a result, they are more actively

involved with resolving neighbourhood problems which positively influences their image of neighbourhood safety as they feel that problems are being actively dealt with. These mechanisms were supported by the results, as both social contacts as neighbourhood attachment had a positive effect on the perceived safety of the neighbourhood.

The analysis that was presented in this research also provided some unexpected results. Academics have well debated perceptions of safety and fear of crime to be influenced by individual characteristics (Smith, 1988; Hough, 1995; Smith and Torstensson 1997; Koskela, 1999: Day, 2001). Especially women are found to feel less safe within public space (e.g. Pain, 1997; Koskela, 1999) and feel more vulnerable within their living environment (called "ecological vulnerability", Smith and Torstensson, 1997; 629) and were therefore expected to also perceive less neighbourhood safety but such a relationship was not found. Furthermore, except for level of education, none of the individual characteristics were found to have a significant influence on perceptions of neighbourhood safety. Individual characteristics were found to be channelled through specifically selecting a neighbourhood and neighbourhood characteristics. Those of higher age, income, and homeowners are more likely to specifically select a neighbourhood, or live in a neighbourhood with more favourable neighbourhood characteristics, as they have more resources to select such neighbourhood and therefore the effect of individual characteristics became indirect.

It has been argued that media can influence perceptions of safety, as they construct images of safe and dangerous places (e.g. Vanderveen, 2006; Lee, 2007; Wallace, 2008). This present research did however not find support for this relationship, as no effect of the image of the neighbourhood as portrayed by the media was found on the perceived safety of the neighbourhood. However, it has to be noted that this effect was only tested with the use of one question, and the effect of media on perceptions of crime and safety might be more complicated than could be measured with the use of this single question. Crime statistics were found to have a direct negative effect on the perceived safety of a neighbourhood, as they represent the occurrence of crime within the neighbourhood, and perceptions of safety are of course influenced by this occurrence. Surprisingly enough, while media, politicians, and neighbourhood residents often blame disturbance caused by youth hanging around within the neighbourhood to affect safety issues within the neighbourhood, no such relationship was found as an objective measurement of youth disturbance did not show a significant relationship with the perceived safety of a neighbourhood.

In sum, the level of education and subjective neighbourhood characteristics were found to be the most important determinants of the perceived safety of a neighbourhood. Especially the perceived reputation and level of physical and social disorder were found to be important subjective neighbourhood characteristics influencing the perceived safety. The addition of the perceived reputation of a neighbourhood as a determinant of the perceived safety did not only reveal a direct effect, but also revealed objective neighbourhood characteristics to be largely mediated through this subjective neighbourhood characteristic. The addition of the perceived reputation in the explanation of the perceived safety thus proved to be a useful determinant, and provided new insights in the effects of the determinants of the perceived safety of the neighbourhood.

5.2 Determinants of the perceived reputation

In order to compare the determinants of the perceived safety and reputation of the neighbourhood, the determinants of the perceived reputation had to be established. Academics have shown profound interest in the determinants of the reputation of the neighbourhood in recent years (e.g. Wassenberg, 2004; Permentier et al., 2008; 2010). This present research further contributed to this line of research as it tried to answer the following question.

What are the determinants of the perceived reputation of a neighbourhood?

In line with other academics, this present research found objective social neighbourhood characteristics (percentage of ethnic minorities and the SES of the neighbourhood) and information sources to be important determinants of the perceived reputation (e.g. Permentier et al., 2007; 2008; Waquant, 2007; Niedomysl, 2008). The effect of the presence of ethnic minorities can be linked to the negative image associated with these groups. As stated by the racial proxy thesis (Harris, 1999), ethnic minorities are associated with crime, vice, and disorder. This negative stigma associated with ethnic minorities causes their presence within a neighbourhood to have a negative effect on the perceived reputation of a neighbourhood. Furthermore, the socio-economic status of a neighbourhood has a large effect on the status a neighbourhood. As the reputation of a neighbourhood is partly based on its status within the urban hierarchy, the SES of a neighbourhood had a direct effect on the perceived reputation.

Next to these objective neighbourhood characteristics, subjective neighbourhood characteristics were also found to have an independent effect on the perceived reputation of a neighbourhood. Firstly, the perceived safety of a neighbourhood has a direct effect on the reputation, but this issue will be dealt with in more detail later. Secondly, the perceived physical disorder within the neighbourhood was found to have a significant positive effect on the perceived reputation. A low level of physical disorder represents a clean and ordered neighbourhood, which positively influences the image of the neighbourhood and thus its perceived reputation. This present researched thus revealed that besides objective neighbourhood characteristics, subjective neighbourhood characteristics can also have a significant direct effect on the perceived reputation of a neighbourhood.

Reputations are largely based on information about neighbourhoods. Information about neighbourhoods for (non)residents mostly comes from (popular) media, and therefore researchers have suggested that media attention could influence the reputation of a neighbourhood (e.g. Wassenberg, 2004; Permentier et al., 2008). Although this relationship had not been tested before, this present research provided empirical evidence to support these expectations, as a positive image portrayed by the media showed a positive effect on the perceived reputation. From the results it could therefore be concluded that media have a significant influence in the creation and development of neighbourhood reputations.

Deliberately selecting a certain neighbourhood (selection effects) has been shown to have a positive effect on subjective neighbourhood characteristics (van Ham and Feijten, 2008). Those who have specifically chosen a neighbourhood are more satisfied with neighbourhood conditions, as they have selected the neighbourhood based on certain neighbourhood characteristics. As no one will specifically select a neighbourhood with unfavourable neighbourhood characteristics, they will be more positive about these (subjective) neighbourhood characteristics, Therefore, selection effects have an independent direct effect on the perceived reputation of a neighbourhood, as was supported by the results.

Research had found the reputation of a neighbourhood to affect social contacts, collective efficacy, and neighbourhood attachment within the neighbourhood (e.g. Rosenbaum et al., 2002; Permentier et al., 2007; Waquant, 2007). The effect of social contacts, collective efficacy, and neighbourhood attachment on the perceived reputation has however been scarcely studied (see for example Permentier 2009). This research investigated these relationships and found collective efficacy and neighbourhood attachment to be determinants of the perceived reputation of a neighbourhood. Neighbourhood attachment and a higher level of collective efficacy will result in a higher level of social control, sense of involvement, and more active participation within the neighbourhood. With this heightened involvement and social control, neighbourhood problems will be more actively resolved leading to less problems, or residents will at least have a sense that 'something is been done' to tackle the problems. As a result, they will have a more positive image of the neighbourhood, which results in a higher perceived reputation.

Although previous research has found the building type and style (Wassenberg, 2004; Skifter Andersen, 2008; Permentier et al., 2008; 2009) and the location of the neighbourhood to influence the reputation of a neighbourhood, this research did not find such effects. However, building type and style are probably dependable on more than just the percentage of high rise buildings within the neighbourhood, which was used as a measurement within this present research. Furthermore, social contacts between neighbours showed an unexpected negative effect, which can probably be explained as neighbours predominantly talk about neighbourhood problems in their day to day interactions, therefore causing a negative effect on the perceived safety.

In conclusion, in line with earlier findings this present research revealed objective neighbourhood characteristics on the social build up of the neighbourhood to be the most important determinants of the reputation of the neighbourhood. Furthermore, subjective neighbourhood characteristics (perceptions of disorder and neighbourhood safety) were also found to influence the perceived reputation of the neighbourhood. Empirical evidence was provided which showed media to have a significant effect on the perceived reputation of a neighbourhood, as has been suggested by previous research (e.g. Wassenberg, 2004). Finally, while research had found reputations to affect levels of collective efficacy, neighbourhood attachment and social contacts within the neighbourhood, this present research found these same determinants to also have an effect on the perceived reputation of a neighbourhood.

5.3 Similarities and Differences

As the determinants of the perceived safety and reputation had been discussed, the differences and similarities between both concepts could be analyzed. Therefore, the following question was answered:

What are the differences and similarities in the determinants of the perceived safety and reputation of a neighbourhood and how can these differences be explained.

The most significant difference in determinants of both studied concepts lays in the different effect of objective and subjective neighbourhood characteristics. For the perceived reputation, objective neighbourhood characteristics were found to be important predictors, while for the perceived safety, subjective neighbourhood characteristics were found to be the most important predictors. Objective neighbourhood characteristics (the ethnic and socio economic build up of the neighbourhood) had an indirect effect on the perceived safety of a neighbourhood through subjective neighbourhood characteristics, while the ethic and socio-economic build up remained to have a significant direct effect on the perceived reputation, even when subjective neighbourhood characteristics were controlled for.

Especially with respect to the presence of ethnic minorities within the neighbourhood this was an interesting conclusion. It has been argued that the presence of minorities within the neighbourhood is associated with crime, vice, fear, and disorder, which leads to a lower perceived safety and reputation within the neighbourhood (e.g. Hough, 1995; Harris, 1999; Pain, 2001; Eitle and Taylor, 2008). However, this present research clearly revealed that the presence of ethnic minorities has a direct effect on the perceived reputation, and through this effect on the reputation, their presence has an indirect effect on the perceived safety. Neighbourhoods with a large share of ethnic minorities are thus not perceived as less safe because of the presence of these groups, but their presence affects the status, and reputation of the neighbourhood (together with other subjective neighbourhood characteristics) which negatively influence the perception of safety.

The differences found between the effect of objective and subjective neighbourhood characteristics can be explained by the definition of the perceived safety and reputation of the neighbourhood. As stated, the reputation of a neighbourhood represents a collective shared view of the relative stable image and status of a neighbourhood within the urban hierarchy (Permentier et al., 2008). This

collective shared view is primarily based on objective neighbourhood characteristics, as collective images are more easily formed through objective than subjective neighbourhood characteristic (objective neighbourhood characteristics are similar to all, while subjective neighbourhood characteristics are individually based). The perceived safety of a neighbourhood was however defined as *a subjective judgment experienced and measured on multiple dimensions, of the security within a neighbourhood.* Naturally, this subjective judgement is considerably affected by subjective neighbourhood characteristics, and hence the different effects come about.

The image of the neighbourhood as portrayed by the media was also included as a determinant, as this image was expected to influence both the reputation as the perceived safety of the neighbourhood. Contrary to expectations, the image that was portrayed by the media only had a significant effect on the perceived reputation. However, the influence of media attention on perceptions of safety is related to some complex mechanisms, as the safety of a neighbourhood is based on multiple subjective assessments. It might be therefore not justified to conclude that the images portrayed by media only have an effect on the perceived reputation and not on the perceived safety.

Next to these main differences, some similarities between both concepts were also found. Physical disorder within the neighbourhood negatively influences both the perceived safety as the reputation. This conclusion supported the broken windows theory (Wilson and Kelling, 1982) and revealed the significant influence of the status of the physical environment (e.g. neatness, litter) for both subjective neighbourhood characteristics. Social disorder revealed a negative relationship with both studied concepts, although social disorder was measured on a subjective individual basis, and might not have given an accurate representation of the social disorder within the neighbourhood. Finally, the level of neighbourhood attachment had a positive effect on both concepts, as residents whom feel more attached, feel more connected to the neighbourhood and therefore have a more positive connotation with both subjective neighbourhood characteristics.

In conclusion, this research found many differences in the determinants of the perceived safety, while some similarities were also found. Especially objective and subjective neighbourhood characteristics have different effects on the perceived safety and reputation. The addition of the perceived safety and reputation of a neighbourhood as determinants of each other showed that objective neighbourhood characteristics have a direct effect on the reputation of a neighbourhood, while the effects are indirect for the perceived safety. Perceptions of disorder were found to significantly influence both neighbourhood characteristics, which can be seen as the most important similarity in the determinants of both studied neighbourhood characteristics.

5.4 Safety and Reputation: determinants of each other?

Although the issue has been touched upon by academics (Wassenberg, 2004; Waquant, 2007; Permentier et al., 2008; Skifter Andersen, 2008) research has not investigated the effect of the perceived safety and reputation of a neighbourhood on each other. This research did however expect both subjective neighbourhood characteristics to be determinants of each other, as they both represent a certain image of the neighbourhood. In order to test this relationship the following question was answered:

What is the direct effect of the perceived safety of a neighbourhood on its perceived reputation, and what is the direct effect of the perceived reputation of a neighbourhood on its perceived safety.

This research has revealed the perceived safety of a neighbourhood to have a direct positive effect on the perceived reputation, even when objective and subjective neighbourhood characteristics were controlled for. Thus, irrespective of the fact that safer neighbourhoods have more favourable neighbourhood characteristics that influence the perceived reputation, the perceived safety directly

influences this reputation. Reputations are "simplified images" (p. 39) of neighbourhoods that are used to make understandable differences between 'good' and 'bad' neighbourhoods within urban environments (Permentier et al., 2008). The safer the neighbourhood, the more positive the image of the neighbourhood will be. Hence, perceptions of safety contribute in the creation of 'good' and 'bad' neighbourhood reputations and thus have a direct effect on the perceived reputation.

This research also expected an effect of the reputation of a neighbourhood on the perceived safety. Thus far, research has not used the reputation of a neighbourhood as a determinant for the perceived safety, but from all the variables entered, the perceived reputation of the neighbourhood had the largest effect on the perceived safety. This was an interesting result as it did not only reveal the significant influence of the reputation of a neighbourhood on its perceived safety, but also revealed unexpected results in relation to the effect of objective neighbourhood characteristics, as they were found to have an indirect effect on the perceived safety.

Therefore, a couple conclusions can be drawn with respect to the influence of the perceived reputation on the perceived safety. Firstly, the perceived reputation is an image residents have of the status of the neighbourhood. The perceived safety is an image of its security. Irrespective of other neighbourhood characteristics, if the image of the status of a neighbourhood becomes more positive, so will the perception of safety. The perceived safety of a neighbourhood is thus related to its status, as the perceived safety of a neighbourhood is largely influenced by connotations with (subjective) neighbourhood characteristics. Therefore, the reputation of a neighbourhood has a significant influence on the perceived safety.

Secondly, the reputation of a neighbourhood is mostly based on the ethnic and socio-economic build up of the neighbourhood. With the addition of the perceived reputation of a neighbourhood as a determinant of the perceived safety it was revealed that a high percentage of ethnic minorities and low socio-economic build up of the neighbourhood, leads to a lower reputation of the neighbourhood, which negatively affects its perceived safety. Although these mechanisms have been explained by for example the racial proxy thesis (Harris, 1999) this research revealed that the ethnic and socio-economic build up of the neighbourhood do not directly influence perceptions of safety, but influence the status and collective image of the neighbourhood. Thus, neighbourhoods with a high percentage of minorities or inhabitants of low socio-economic status are associated with disorder, crime and vice, which negatively influences the status of this neighbourhood, which results in the neighbourhood to be perceived as less safe.

5.5 Implications and Limitations of this research

5.5.1 Policy implications

The results of this study can have important implications for the development of neighbourhoods. As this present research revealed, a lower reputation leads to less safety, and less safety leads to a lower reputation, causing a downward spiral for the image of these neighbourhoods. Research has shown neighbourhoods with a low perceived reputation (Niedomysl, 2008; Permentier et al., 2009) and a low perceived safety (Low, 2004; Hong and Farley, 2008) to be less favourable places to live. As neighbourhoods with a low level of safety and a bad reputation become less favourable, only those who have no choice or no resources will be forced to live in these neighbourhoods. Unfortunately, those who have less choice or resources are predominantly people of low socio-economic status, and ethnic minorities. And as this research has shown, these groups both directly and indirectly negatively influence the perceived safety and reputation of a neighbourhood.

Therefore, low levels of perceived safety and reputation can cause a vicious circle of neighbourhood decline. Therefore, knowledge on the determinants and relationship between both studied subjective neighbourhood characteristics has proven to not only be relevant from an scientific, but also from a

societal point of view. Furthermore, from the conclusions derived from this study, policy implications and measurements can be developed in order to stop these processes of neighbourhood decline.

Firstly, measurements and policy implications can focus on fixing physical and social disorder within the neighbourhood. Both physical as social disorder have a significant effect on the perceived safety and reputation, and especially the level of physical disorder within the neighbourhood could easily be declined. Removing litter, graffiti and keeping the streets orderly and clean can all be effective measurements, as has also been argued by the broken windows theory (Wilson and Kelling, 1982). Former major Guilliani of New York applied this same reasoning, and for some neighbourhoods the effects for perceptions these neighbourhoods were very positive.

Resolving social order could also be effective, although this might be hard to establish. In the Netherlands, and the rest of Western Europe, creating socially mixed neighbourhoods is intensively used to establish more social order within the neighbourhood. Through restructuring of the housing stock and measurements to attract certain (high-income) groups to less favourable neighbourhoods (Galster, 2007; Wittebrood and van Dijk, 2007) a social mix is tried to be created. This can result in more social order and satisfaction with the neighbourhoods' social composition, and therefore positively influence images of the neighbourhood. However, the presumed advantages of these socially mixed neighbourhoods have been heavily debated amongst academics (e.g. Galster, 2007; Wittebrood and van Dijk, 2007; Musterd, 2008) and creating a social mix might not be as effective as is sometimes presumed.

Neighbourhood attachment, participation, involvement and contact between residents all have a positive effect on either the perceived safety, reputation, or both. Policies and measurements could be developed to stimulate the contact and involvement between neighbourhood residents through neighbourhood activities, meetings, or even small initiatives like barbecues and neighbourhood party's. Although the effects might be small it can be worth it to at least stimulate the sense of attachment, involvements and belonging of neighbourhood residents to improve their perceptions of subjective neighbourhood characteristics.

Media influence was found to affect the perceived reputation, and although this present research did not find an effect on perceptions of safety, others have (e.g. Vanderveen, 2006; Wallace, 2008). This present research found positive media attention to positively influence the reputation of the neighbourhood. This is led to conclude that positive reports by media can also positively influence the image of neighbourhoods by residents and non-residents. Although it might not be possible to enforce media to be merely positive about the developments within neighbourhoods, it could at least be stimulated or encouraged. Furthermore, through information sources provided by municipalities (for example neighbourhood newspapers) an emphasis could be placed on positive developments within the neighbourhood in order to positively influence the image residents have of their neighbourhood.

5.5.2 Limitations and future research

This present research has provided new insights in the differences, similarities, relationships, and determinants of the perceived safety and reputation of a neighbourhood. Furthermore, it has discussed how these subjective neighbourhood characteristics can influence processes of neighbourhood decline, and how policy can affect these processes. This research has therefore revealed new insights that are socially and scientifically interesting, but also encourages further research on this topic. Next, because of limitations to this present research, further research on the relationship between, and determinants of, the perceived safety and reputation of a neighbourhood could be initiated.

Firstly, the data used for this present research had some important limitations. The data was gathered to study the determinants and effects of neighbourhood reputations. Therefore, the data on

perceptions of safety and the possible determinants was limited, while data on reputations was slightly overrepresented. For example, the data did not contain information on previous experiences with crime or violence. However, victimisation has proven to be an important determinant on perceptions of safety (e.g. Hough, 1995; Pain, 1997), but this research could not control for this relationship as this was not included in the data. Furthermore, especially with respect to the influence of media and levels of social cohesion and collective efficacy, the data was somewhat limited and further research should more specifically include variables that measure these determinants.

Secondly, as the perceived safety and reputation of a neighbourhood are subjective neighbourhood characteristics, a qualitative analysis might provide further insight in the mechanisms that affect both subjective neighbourhood characteristics. With the use of interviews, content analysis, and focus groups, more in depth knowledge can be derived about these mechanisms and determinants. Furthermore, as the variables used to explain the perceived reputation and perceived safety of the neighbourhood are interrelated, a multilevel analysis could better establish the independent effect of the determinants that were used in this present research. Furthermore, from this study the exact direction of the relationship between the perceived safety and reputation could not fully be established. Although it seemed that the reputation of a neighbourhood is of larger effect on the perceived safety than vice versa, future longitudinal research could further investigate this relationship and reveal a more detailed explanation of the causality between both characteristics

Another limitation of this study, and suggestion for further research, is a larger emphasis on the effect of security measurements and reputation management on both subjective neighbourhood characteristics. Wassenberg (2004) has for example argued that reputation management could have a positive influence on the image of a neighbourhood, and should be included in neighbourhood regeneration policies. Measurements that are frequently recommended to increase feelings of safety within a neighbourhood are, installing street lightning (Nair, Ditton, Phillips, 1993) reducing the perceived disorder in a neighbourhood (e.g. Wilson and Kelling, 1982) police presence and foot patrolling (Bennet, 1991: Hough, 1995; Enders et al., 2009) and installation of Closed Circuit Television Cameras (CCTV) (e.g. Fyfe and Bannister, 1996; Ditton, 2000; Williams and Johnstone, 2002; Welsh and Farrington, 2002). Although this last measurement has shortly been discussed, this research could not investigate these relationships, as the data did not provide measurements for these variables.

Finally, this research has only dealt with the determinants, differences and similarities of the perceived safety and reputation of the neighbourhood and the effect on each other. However, future research could further investigate the effects of both subjective neighbourhood characteristics (especially for perceived safety) and their relationship on for example, behavioural responses, neighbourhood participation, moving intentions and neighbourhood preferences. Especially the relation with moving intentions and neighbourhood preferences could provide useful insights, as they are both related to mobility behaviour and processes of neighbourhood decline. Further insights and scientific knowledge on the perceived safety and reputation of a neighbourhood in relation to these aspects can therefore not only be interesting from a scientific point of view, but can also result in a better understanding of processes and determinants of neighbourhood decline. With this knowledge, the ever evolving spirals of decline often present in these neighbourhoods could be stopped. Consequently declining neighbourhoods can become 'attractive', 'safe' and 'nice' neighbourhoods again. Preferred by the majority, and not just those with a lack of choice.

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