Collective efficacy and fear of crime in the Flemish region. Looking back on the results and preview of additional research.

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1. A multilevel study of collective efficacy, victimisation and fear of crime

The 10th of November 2010 I defended my doctoral dissertation “Social Cohesion and Crime – A Multilevel Study of Collective Efficacy, Victimisation and Fear of Crime” under the supervision of Prof. dr. Paul Ponsaers and Prof. dr. Lieven Pauwels in the culture and congress centre ‘Het Pand’ of Ghent University. This dissertation is the result of almost four years of scientific research into indicators of social cohesion in several spatial settings and into the influence of social processes on crime-related outcomes such as victimisation and fear of crime. However this dissertation has primarily a theory-testing character, some important results and recommendations can be extracted for the sake of an integrated (security) policy. For this reason, in this contribution I will discuss the most essential results of this research and possible implications for policymakers. In a second part I will examine some opportunities for additional research and in a concluding third part I will try to fit this contribution within the program of the Research Unit Social Analysis of Security (in Dutch: ‘Onderzoeksgroep Sociale Veiligheidsanalyse – SVA’).

1.1. Preliminary considerations

The central topic in this contribution probes to the question if social cohesion in the community can form a buffer against the negative consequences of structural area characteristics such as economic disadvantage on (fear of) crime. Social cohesion is a large and multidimensional concept. An in-depth study of the literature indicates that different authors work with different definitions of this concept (de Hart, Knol, Maas–de Waal & Roes, 2002; Harell and Stolle, 2008; Schnabel, Bijl & de Hart, 2008). For some, social cohesion is analogous to strong social bonds which are achieved through a shared norm and value pattern, while for others social cohesion signifies well-developed participation in associational life and extensive social networks. Yet others define social cohesion as the presence of reciprocal trust among the (local) population.

Because the absence of an unequivocal, definitive description of the concept of social cohesion is problematic when studying causes and effects of social cohesion and when measuring indicators of social cohesion, close attention was paid particularly to the definition, operationalisation and measurement of social cohesion by explicitly focusing on a clear-cut dimension of the concept, namely ‘collective efficacy’. In the next paragraph we go more deeply into this choice.

In the meantime the collective efficacy concept is thoroughly established in the United States and the past decade a theoretical model was composed around this concept, which follows from the social disorganisation theory. The core objective of this dissertation consisted of putting, within the Belgian and primarily Flemish context, the collective efficacy theory to a critical and empirical test by determining the structural characteristics which influence collective efficacy and the consequences of these for spatial differences in fear of crime on the

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one hand and individual differences in fear of crime on the other hand. Based on this objective, the main research question can be situated at two levels:

- firstly, examine to which extent spatial differences in fear of crime can be explained by the collective efficacy theory; and
- secondly, examine to which extent individual differences in fear of crime can be explained by the collective efficacy theory.

To answer these research questions in the first part of this contribution, we discuss the origin and meaning of the collective efficacy concept in a first step. In the framework of this research, we were able to build up and make use of a coherent and interdisciplinary database which is uniquely for Flanders and which has never been done before in Belgian criminology. In a second step we discuss this database and amplify on the survey that was administered to measure collective efficacy among other things. In a third step we discuss the theoretical models, both the model to explain spatial differences in fear of crime and the model to explain individual differences in fear of crime, and we present the used data and methods. To avoid excessive numerical data, in a fourth step we exclusively discuss the most important results of this research. In a fifth step we lay stress on the correct interpretation of the results and the relevance for policymakers.

1.2. Origin and meaning of collective efficacy

Throughout history, much has been written about and there have been many discussions on social cohesion in the interest of societal security. Since the beginning of the industrial revolution at the end of the 18th century and during the entire 19th century, there has been talk of the continuous erosion or loss of social cohesion among the population due to unremitting urbanisation (Durkheim, 1893; Park, 1915; Park, Burgess & McKenzie, 1925; Tönnies, 1887; Wirth, 1938). This continues today in 2010 when security issues involving social cohesion are still by and large sustained by points of view which point to a lack or deterioration of social cohesion. For this, specific reference is often made to what are considered the negative characteristics of an urbanised context: economic disadvantage, high percentages of foreign (non-Belgian) nationalities or ethnic heterogeneity, high residential mobility or a lack of residential stability, etc. (Bursik & Grasmick, 1993; Granovetter, 1973; Kasarda & Janowitz, 1974; Sampson, 2002; Sampson, Raudenbush & Earls, 1997; Shaw & McKay, 1942).

Figure 1: Spatial distribution of avoidance behaviour in Belgium (Security Monitor 2002, 2004 and 2006)
Figure 1 demonstrates urbanisation still has an important impact on the spatial distribution of crime-related characteristics to this day. On this map of Belgium the spatial distribution of avoidance behavior is shown for all 589 municipalities based on three editions of the Security Monitor (N = 106,637). Avoidance behaviour is better known as the behavioural component of fear of crime and can be interpreted as a defensive reaction to an emotional state of mind when experiencing fear (Ferraro & LaGrange, 1987; Gabriel & Greve, 2003). In the framework of this contribution we will focus on this behavioural component of fear of crime. Appendix 1 shows how avoidance behaviour has been operationalised in this study. Although one could empirically establish till the eighties that above-mentioned structural characteristics of highly urbanised areas have a baleful influence on fear of crime among other things, one could not give a clear answer to the question why these specific area characteristics such as economic disadvantage, ethnic heterogeneity and residential mobility lead to a greater probability of fear of crime among individuals. The mechanisms or processes whereby the social structure of a residential area encourages (fear of) crime were clustered around the concept of ‘social disorganisation’ and various hypotheses were put forward during the first half of the 20th century: the crumbling away of the social fabric, looser social ties, less conformity, a lack of informal social control, the absence of common values and norms, etc. During these early years, however, these propositions remained to a great extent intuitive in nature because social disorganisation mechanisms were not being measured at the time due to a lack of methodological skills and theoretical lack of clarity (Hedström, 2005).

It was only in the sixties with the ‘community attachment model’ (Kasarda & Janowitz, 1974; Granovetter, 1973), but especially in the eighties with the ‘social capital model’ (Bourdieu, 1986; Coleman, 1988; Putnam, 1995) and stimulated by the optimisation of the survey methodology (Hox, 1998; Nijboer, 1995), these social mechanisms such as network density, social trust and participation in associational life were successfully measured for the first time using surveys, and this made it possible to test the effect of social structural area

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1 In the region of Flanders the highest concentrations can be observed in larger cities such as Ghent, Antwerp, Ostend, Sint-Niklaas, Mechelen, etc. Furthermore we can see high concentrations in the entire Brussels metropolitan region, the Province of Hainaut and the area around Namur and Liège.
characteristics on crime-related outcome variables in accordance with the ‘causal chain’ of the social disorganisation theory. In the middle of the nineties several aspects of these models were retranslated into the contemporary ‘collective efficacy model’. This model was spectacular because social cohesion was conceptualised as more than only the presence of strong and local social ties. In this model social cohesion was associated with a shared norm and value pattern in the community, which shapes a climate of social trust and solidarity whereby the people living in such communities are much more prepared to contribute some of their time by keeping an eye on things when problems arise. The influential contribution of Sampson, Raudenbush and Earls (1997) brought the collective efficacy concept to the attention of social scientists all over the world.\(^3\) They define collective efficacy as “social cohesion among neighbors combined with their willingness to intervene on behalf of the common good” (Sampson et al., 1997, p. 918). Based on this definition, we can infer that collective efficacy is an area characteristic which consists of two components, i.e. social trust and informal social control.

The pioneer study done by Sampson, Raudenbush and Earls (1997) was carried out in 1995 and involved 343 neighbourhoods in Chicago, the birthplace of the social disorganisation theory. It was demonstrated that the most significant structural determinants of crime in the social disorganisation theory, namely economic disadvantage, ethnic heterogeneity and residential mobility, can account for 70 percent of the variations in collective efficacy between neighbourhoods and that the degree of collective efficacy in a neighbourhood is very closely related to concentrations of crime and violence. In the United States, the results of this research engendered numerous studies aiming to test the collective efficacy model (Bernasco & Block, 2009; Brown, Perkins & Brown, 2003; Browning, 2002; Browning, Feinberg & Dietz, 2004; Duncan, Duncan, Okut, Strycker & Hix-Small, 2003; Ferguson & Mindel, 2007; Galster & Santiago, 2006; Gibson, Zhao, Lovrich & Gaffney, 2002; Guterman, Lee, Taylor & Rathouz, 2009; Kingston, Huizinga & Elliott, 2009; Maimon & Browning, 2010; Molnar, Cerda, Roberts & Buka, 2008; Morenoff, Sampson & Raudenbush, 2001; Reisig & Cancino, 2004; Roman & Chalfin, 2008; Sampson, Morenoff & Earls, 1999; Sharkey, 2006; Simons, Simons, Burt, Brody & Cutrona, 2005). These studies are markedly consistent in their findings.\(^4\) The negative impact of social structural area characteristics such as economic disadvantage, ethnic heterogeneity and residential mobility on crime-related characteristics such as crime (property crime, violent crime and murder), victimisation and fear of crime can be explained partly by a lack of collective efficacy.

Local settings, in US research generally referred to as ‘neighborhoods’, with a high degree of collective efficacy appear to be in a better position to exert social control on certain phenomena such as youth gangs, illegal drug rings, prostitution, etc., which can lead to an escalation in crime. Settings with a high degree of collective efficacy offer better resistance and are more able to stand up to all sorts of disorder as well as more serious problem situations. When there is a pervading climate of social trust and solidarity, the people living in such settings are much more prepared to contribute some of their time, keep an eye on things and take action when necessary to defend the interests of the community. There will also be much more participation and action coming from the community itself to perpetuate a liveable climate. As such, to a certain extent communities with a high degree of collective efficacy

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\(^3\) The work of Robert Sampson and his colleagues has to date (December 2011) been cited 2,140 times in Web of Science, which makes it one of the most frequently cited works in the social sciences.

\(^4\) This is relatively logical to a certain extent since many of them used the same data taken from the well-known and large-scale Project on Human Development in Chicago Neighborhoods (PHDCN) Community Survey. More information (data access, instruments, methods, publications, etc.) about this project can be found on the PHDCN website: http://www.icpsr.umich.edu/icpsrweb/PHDCN/.
become able to fend for themselves and resist crime. However, when persons from the same residential area have different values and norms or when these are unclear, and when persons distrust or fear each other, then there is a strong chance that there will not be a climate of informal social control. This affects the local setting through increased crime and it also impacts the residents, who bear a much greater risk of becoming victims of crime in their residential area and who will also feel unsafe more often.

When analysing the scientific publications in the Web of Science which directly address the concept of collective efficacy to explain spatial or individual differences in crime, victimisation and fear of crime (46 hits – February 2011), one can observe that close to 90 percent of these studies originated in the United States and that over 90 percent of them were conducted in the Anglo-Saxon world. To date, it is only in the Netherlands (Flap & Völker, 2005; Goudriaan, Wittebrood & Nieuwbeerta, 2006; Nieuwbeerta, McCall, Elffers & Wittebrood, 2008; Wittebrood, 2008), Germany (Oberwittler, 2001; Oberwittler, 2004; Blasius & Friedrichs, 2007; Ludemann & Peter, 2007), Sweden (Mellgren, Pauwels & Torstensson Levander, 2010; Wikström & Dolmén, 2001; Sampson & Wikström, 2008) and China (Zhang, Messner & Liu, 2007; Zhang, Messner, Liu & Zhuo, 2009) that we have seen non-Anglo-Saxon applications within this research tradition in the making. Yet despite this, there are no studies whatsoever in (Western) European criminology which use the concept of collective efficacy as originally measured in the pioneering study by Sampson, Raudenbush and Earls (1997). The only use of this approach has been within the framework of the comparative research by Sampson and Wikström (2008) in Stockholm, where a few items from the original set of items of collective efficacy were questioned for comparison with the neighbourhood study in Chicago. To the best of our knowledge, this study represents the first time that the collective efficacy model is being tested in a European setting while using the original and complete operationalisation of the concept.

1.3. The measuring of collective efficacy

The measuring of the collective efficacy concept fits in with the ‘Social Cohesion Indicators for the Flemish Region (SCIF)’ project with support from the Flemish government (Flemish agency for Innovation by Science and Technology). The goal of the SCIF project was to develop a framework within which social cohesion indicators could be gathered and elaborated for Flanders. For the first time, data which had been gathered for years by various administrative services was brought together in a large coherent database. To do this, an appeal was made to independent data sources such as the Portal for Local Statistics of the Study Service of the Flemish Government (Dutch: Portaal Lokale Statistieken van de Studienst van de Vlaamse Regering), the Crossroads Bank for Social Security (Dutch: Kruispuntbank Sociale Zekerheid), Directorate-general Statistics and Economic information (Dutch: Algemene directie Statistiek en Economische informatie), the National General Database of the Federal Police (Dutch: Nationale Gegevensbank van de Federale Politie), etc. This enabled the building of a highly differentiated dataset of social cohesion indicators containing information on, among other things, participation, nationality, religion, unemployment, housing, health, social welfare, crime, victimisation, fear of crime, etc. All this data was gathered per municipality. The SCIF project was implemented by an

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5 In Dutch: ‘agentschap voor Innovatie door Wetenschap en Technologie – IWT’. All information about the SCIF project can be found on the website: http://www.socialcohesion.eu/.

6 When we talk about municipalities, we refer to the entities, which have been described in Belgium since 1977 as ‘fused communes’ or ‘amalgamated municipalities’. The present division of Belgium in municipalities is the result of a primarily political decision in 1977 in which the number of Belgian municipalities was reduced from 2,359 to 596. Municipalities are the lowest governmental unit in Belgium. Financial, geographical, linguistic, economic, social and cultural motives have
interdisciplinary team comprised of political scientists working under the supervision of Prof. dr. Marc Hooghe (Centre for Political Science – Catholic University of Leuven), sociologists working under the supervision of Prof. dr. Bea Cantillon (Centre for Social Policy – University of Antwerp), economists working under the supervision of Prof. dr. Bruno Heyndels (Centre for Micro-Economics – Free University of Brussels) and criminologists working under the supervision of Prof. dr. Paul Ponsaers (Research Unit Social Analysis of Security – Ghent University). Moreover, for the theoretical part of this research project an appeal was made to the scientific expertise of Prof. dr. Dietlind Stolle, one of the leading experts in the field of social cohesion and social capital in North America and a policy adviser to the Canadian government (Department of Political Science – McGill University, Montreal, Canada).

In addition to establishing a municipal database using various types of existing social cohesion indicators, the SCIF project also set out to develop new indicators by directly measuring social cohesion through a population survey. This was done by the SCIF survey, a representative population survey which was carried out in 2009 in 40 Flemish municipalities. A total of 2080 respondents were questioned in face-to-face interviews carried out by professional interviewers. In this manner, in addition to a municipal database there was also an individual database of respondents created containing data on the attitudes and perceptions of individuals. As social cohesion is a characteristic of the local setting, the individual data on collective efficacy were aggregated at the municipal level. The two sub-components of collective efficacy, i.e. social trust and informal social control, were questioned separately using a set of items (questions). In Appendix 3 the operationalisation of both sub-components can be observed. Respondents received two standardised sets of items: one for social trust and one for informal social control in their neighbourhood. For both components, the average of the answer scores for all respondents in the same setting was calculated to obtain the score for social trust and informal social control at the local setting level, in this study the municipality level. Both scores combined yielded a total score for collective efficacy.

1.4. The data sets

The twofold research question in this study can only be answered by explicitly testing the collective efficacy theory to explain differences in fear of crime at two different levels of analysis. To determine the extent to which spatial differences in fear of crime can be explained by the collective efficacy theory a macro model with exclusively residential area characteristics, i.e. municipality characteristics, was used. To determine the extent to which individual differences in fear of crime can be explained by the collective efficacy theory a cross-level model with both municipality characteristics and characteristics of individual persons (residents of the municipality), was used. For each research question a schematic overview of the theoretical model together with the data and methods we used to test these models, are presented in this paragraph.

1.4.1. Municipal distribution of avoidance behaviour

played a part in the decision process of dividing Belgium into these fused communes. At present, Belgium is composed of 589 (fused) municipalities of which 308 are in Flanders (Dutch-speaking), 19 in Brussels and 262 in Wallonia (French-speaking). Municipalities in Belgium differ in surface area and population (on average 18,000 inhabitants/municipality).

7 So social trust and informal social in the local setting are derived and calculated from the individual perception scores on social trust and informal social control. In other words, when we talk about social trust and informal social control in this dissertation, this refers to ‘shared social trust’ and ‘shared informal social control’ in the local setting.
Figure 2 gives a schematic representation of the theoretical model tested to explain the unequal distribution of avoidance behaviour in Belgian municipalities. Based on this model, it is presumed that urbanised municipalities have higher concentrations of avoidance behaviour due to lower levels of social trust and informal social control and stronger levels of disorder and crime in this type of municipalities.

Figure 2: Macro model to explain municipal differences in avoidance behaviour

The analyses were carried out using data from three editions of the Security Monitor (2002, 2004 and 2006). Analyses based on data from the Security Monitor offer the major advantage that a large number of municipalities can be included in the research and this then makes it possible to take maximum advantage of the variation between the municipalities. This is important to gain an insight into the relationship between the various municipal characteristics in the collective efficacy model. One of the limitations of the Security Monitor, however, is that processes such as social trust and informal social control, which are dimensions of collective efficacy, are not measured. For this reason, variables were used which are closely connected with these social processes from a theoretical point of view. Social trust is therefore measured by its structural condition, namely residential stability (Sampson, 1985). Informal social control is measured by one of the strongest predictors of low informal social control, namely the proportion of single-adult households in the community (Miethe & Meier, 1994). All operationalisations of the variables in the macro model can be found in Appendix 2.

Blockwise regression analyses and structural equation models (SEM) in LISREL were used to examine the effects. In the framework of this contribution we don’t go more deeply into the technical background of these statistical techniques. These techniques were also applied to other components of fear of crime such as risk perception, fear frequency and fear intensity. However, the model best fitting the data is presented in this contribution, which is a behavioural component of fear of crime, namely avoidance behaviour. In this context it is important not to restrict this study to municipal differences, but also assess whether residents from the same municipality have less differences in avoidance behaviour than residents from different municipalities have. The analyses indicate that approximately eight percent of individual differences in avoidance behaviour can be explained by variations in municipal characteristics. In the next paragraph we discuss the model to explain these individual

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8 In total, 346 of the 589 municipalities in Belgium were analysed with 101,303 respondents participating in total. The research only includes municipalities where more than 40 respondents were questioned.
differences in avoidance behaviour, taking into account both municipality characteristics and individual characteristics.

1.4.2. Individual differences in avoidance behaviour

Figure 3 gives a schematic representation of the theoretical model tested to explain the observed individual differences in avoidance behaviour in the SCIF survey. The cause of individual differences in avoidance behaviour can be attributed to the socio-demographic composition of the residential context (individual characteristics) or by characteristics of the residential context itself (municipal characteristics). At the level of the municipality, account was taken of characteristics which are often associated with urbanisation, such as economic disadvantage, ethnic heterogeneity and residential mobility. As is the case for the macro model, it was presumed that these social structural characteristics reduce the degree of collective efficacy in a municipality. This in turn leads to greater concentrations of disorder and crime and means that residents of these municipalities run a higher risk of developing avoidance behaviour than residents of municipalities which do not have these characteristics. At the individual level, account was taken of the background characteristics of residents such as gender, age, nationality, family situation, education and income. It was presumed that both municipal characteristics and an individual’s background characteristics play an important role in whether or not that person becomes a victim of crime. Persons who have already been victimised in their municipality would be expected to have a different perception of disorder and crime in their municipality whereby they run a higher risk of developing avoidance behaviour than persons who have not been victimised in their municipality.

Figure 3: Cross-level model to explain individual differences in avoidance behaviour

The data came from four independent data sources: the Portal for Local Statistics of the Study Service of the Flemish Government (in Dutch: het Portaal Lokale Statistieken van de Studiedienst van de Vlaamse Regering – SVR), the Security Monitor (in Dutch: Veiligheidsmonitor – VM) and the crime statistics (in Dutch: Politionele Criminele Statistieken – PCS) of the National General Database of the Federal Police, and the SCIF survey. Such a triangulation of data sources has never been done before in the field of
contextual criminological research in Belgium. All operationalisations of the variables in the cross-level model can be found in Appendix 3.

The hypotheses were tested using blockwise multilevel or hierarchical linear regression analyses in HLM 6.06. Again, in the framework of this contribution it is not necessary to go more deeply into the technical specificity of this statistical technique. It suffices to know that multilevel models make it possible to explain differences between individuals by simultaneously taking account of the local context (the municipality) and the characteristics of individual persons (residents of the municipality).

1.5. Results

Table 1: The community structure of avoidance behaviour

<table>
<thead>
<tr>
<th>Dependent: avoidance behaviour</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urbanisation</td>
<td>.52***</td>
<td>.45***</td>
<td>.21***</td>
<td>n.s.</td>
</tr>
<tr>
<td>Social integration</td>
<td>--</td>
<td>-.18***</td>
<td>n.s.</td>
<td>n.s.</td>
</tr>
<tr>
<td>Informal social control</td>
<td>--</td>
<td>--</td>
<td>-.59***</td>
<td>-.30***</td>
</tr>
<tr>
<td>Disorder</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>.71***</td>
</tr>
<tr>
<td>R² (Model evaluation)</td>
<td>.27</td>
<td>.30</td>
<td>.50</td>
<td>.77</td>
</tr>
<tr>
<td>Adj. R²</td>
<td>.26</td>
<td>.29</td>
<td>.49</td>
<td>.77</td>
</tr>
<tr>
<td>F-change</td>
<td>125.022***</td>
<td>14.002***</td>
<td>134.964***</td>
<td>418.019***</td>
</tr>
</tbody>
</table>

*** P≤ .001,  n.s. = not significant

From the analyses to explain the municipal distribution of avoidance behaviour, it transpired that highly urbanised municipalities indeed have to deal with the highest concentrations of avoidance behaviour (see Model 1 in Table 1). This is partly attributable to the limited presence of collective efficacy in highly urbanised settings (see Model 2 and Model 3 in Table 1). A climate of social trust and informal social control is more present in non-urbanised settings than in urbanised settings. Nevertheless, the results also indicated that other processes play a role in explaining the higher concentrations of avoidance behaviour in urban settings. The analyses reveal that higher concentrations of disorder (and crime) in highly urbanised municipalities can be considered as the most important ‘trigger’ for high concentrations of avoidance behaviour (see Model 4 in Table 1). According to the structural equation models, disorder and avoidance behaviour do not have a common cause, but disorder can be considered as a catalyst for more avoidance behaviour. This model accounts for 77% of the observed municipal differences in avoidance behaviour.

Table 2: Hierarchical linear models explaining avoidance behaviour
To answer the second research question we would assess to which extent municipality characteristics have an impact on the observed individual differences in avoidance behaviour. In other words, is an individual’s avoidance behaviour exclusively determined by his/her personal characteristics or do have structural and social characteristics of the residential area an impact also? From the analyses, it transpired that individual differences in avoidance behaviour are not the product of purely personal characteristics or purely characteristics of the municipality, but on the contrary these differences are the outcome of a combination of both the socio-demographic composition of the municipality and characteristics of the municipality itself. The socio-demographic composition of a municipality continues to be the most important predictor of an individual’s avoidance behaviour. It was demonstrated that women, senior citizens, people with limited education and the poor are at greater risk of exhibiting avoidance behaviour, just like persons who have already been victimised in their municipality are also at greater risk of exhibiting avoidance behaviour (see Model 1 and Model 5 in Table 2). Results showed that victims generally exhibit greater avoidance behaviour than residents who have not been victimised in their municipality because they have the perception that there is more disorder (and crime) in their municipality (see Model 6 in Table 2). Although the analyses showed that the influence of municipality characteristics is more limited than personal characteristics, some important municipality characteristics can be neglected.

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9 Because 33 respondents did not provide information about all individual level variables, they were deleted from the analyses.
nevertheless. Indeed we were able to determine that economically disadvantaged municipalities generate an increased risk of avoidance behaviour on the part of their inhabitants (see Model 2 in Table 2). This can be explained to a certain extent by a lack of social trust in these municipalities (see Model 3 in Table 2), but primarily by an increased concentration of disorder and violent crime in this type of municipalities (see Model 4 in Table 2). Again, the levels of disorder and crime in a municipality are the strongest predictors.

1.6. Interpretation of the results and policy relevance

The surplus value of this research can be situated in taking account of both individual and area characteristics, through which we were able to dissect the reality and the underlying processes of avoidance behaviour in a better way than when we would have focused purely on one level of analysis. The results which were obtained in this study differ somewhat from what has been established by most US collective efficacy studies carried out to date. One notable observation, which comprises a marked difference with the US collective efficacy studies, is that the two subcomponents of collective efficacy, social trust and informal social control, are not connected to each other in the Flemish municipal context (R = 0.23 with p > 0.05). Although neighbourhood studies in the US have shown that local settings with a high degree of social trust generally also have a high degree of informal social control (R = 0.80 with p < 0.001 in Sampson, Raudenbush & Earls, 1997), this is not the case in Flanders. The analyses in this study, in which both subcomponents of collective efficacy were ultimately studied separately, showed that only differences in social trust between municipalities have an influence on residents’ avoidance behaviour and municipal concentrations of avoidance behaviour, while differences in informal social control between municipalities do not show any connection whatsoever with the avoidance behaviour of residents. However, the above presumption regarding informal social control does not in any way mean that informal social control is unimportant for an individual’s risk on developing avoidance behaviour. This only means that informal social control of specific problem situations, such as young people spray-painting graffiti, fighting in the street, skipping school and hanging out on street corners, etc., yielded insufficient differentiation among the Flemish municipalities to be of any significance in explaining residents’ avoidance behaviour. Following some other international studies, this research finding is a good illustration of the fact that results from a specific international context cannot simply be transferred and applied to other countries and settings (Reisig & Cancino, 2004; Zhang, Messner, Liu & Zhuo, 2009).

The reason for this intriguing difference between the US and Flemish contexts in terms of the connections between social trust and informal social control is worthy of further examination, but one important line of reasoning can already be put forward:

The operationalisation of informal social control as set out in the original set of items for collective efficacy was not sufficiently relevant in the Flemish context and as such could not provide an explanation for variations in avoidance behaviour. Based on the set of items used, it appeared impossible to quantitatively differentiate between the causes and consequences of the presence or absence of informal social control. One possible explanation is that problem situations, such as young people spray-painting graffiti, fighting in the street, skipping school and hanging out on street corners, etc. are phenomena which, in Flanders, occur almost exclusively in a number of economically disadvantaged areas within a big-city context (e.g. big cities such as Antwerp and Ghent). In addition, these situations only involve a few problem areas or neighbourhoods and this means that variations among neighbourhoods at the municipal level are partially lost. Thus, the questions used to measure informal social control
are excessively geared to the big-city context and are not suited to regional cities or a more rural context.

It is only the subcomponent of social trust which contributes to the observed individual differences in avoidance behaviour, but here again the significance of this effect must certainly not be overestimated. Bearing in mind the problem situations which exist in American settings characterised by insufficient collective efficacy, the conclusions of this study should serve to prompt the Flemish Government to continue supporting investments in the social pillar, as well as give the latter the necessary attention to combat the spatial segregation of collective efficacy. Following the European strategy, Flanders modified its policy approach in 2005 and reinforced the economic pillar to the detriment of the social pillar. Although this study shows that the biggest challenge does indeed involve dealing with economic disadvantage, it must always be remembered that the economic and social pillar need not be seen as competing forces, but rather as complementary elements. Additional efforts can still be made, in particular with regard to fostering social trust (the extent to which people are willing to help each other, build up a close-knit community, etc.) in certain economically disadvantaged settings. In other words, a good social climate and high social trust in the municipalities will bring more safety to the residents (this will resist avoidance behaviour such as avoiding to leave home after dark, forbidding children to play on the street, etc.). While US studies show that an increase of social trust goes hand in hand with an increase of informal social control, this is not necessary the case in Flanders. An increase of informal social control obviously has less influence on avoidance behaviour in a Belgian (European?) context. Thus, not a plea for more initiatives such as neighbourhood watch groups (in Dutch: Buurt Informatie Netwerken of BIN’s), but a clear analysis in favour of higher social trust at the municipal level. Based on this research, we are unable to determine what the best strategy is for reinforcing social trust in the local setting. Could this involve organising neighbourhood barbecues, investing in making an area greener or encouraging active participation in associations? However it is impossible to give a concrete and well-founded answer to these questions by a theory-testing research, it may be clear that the reinforcement of the social infrastructure must be a main concern for local policies. Important aspects of this social infrastructure can be: (1) the identification of the inhabitants with each other; (2) the quality of their social relations; and (3) their feeling of responsibility for the neighbourhood (de Hart, Knol, Maas-de Waal & Roes, 2002). With regard to the reinforcement of this social infrastructure, urban renewal is an interesting, but delicate instrument which can be appealed to by local government. Urban renewal offers the opportunity to combat social and physical decay on the one hand, but on the other hand these interventions often conflict with the desires of the inhabitants, who are devoted to their homogenous composed neighbourhoods and who do not believe in urban change. Therefore, more involvement and participation of the inhabitants into local policy is one of the main conditions to shape a climate of reinforced social trust. Additional policy-testing research into the effectiveness of strategies to reinforce social trust in local settings will be necessary to be able to provide a reliable answer to this point of interest.

The results of this study reveal that increasing social trust yields double profit. On the one hand it will reduce the negative impact of disorder and crime. This is necessary because reinforcing the economic and social pillar in a community only will bring the desired result when escalations of disorder and crime can be prevented. If not, it is just banging one’s head against a brick wall. On the other hand an increased social trust will decrease the negative consequences of economic disadvantage. A policy that is only aimed at dealing with disorder and crime while neglecting the structural determinants may reduce the feeling of insecurity.
among the population in the short term, but this approach will create a time bomb in the long term if the issue of economic disadvantage is not addressed.

For this reason, there is a need for a social and economic policy aimed at reducing the unemployment rate and the number of recipients of welfare support, improving living conditions for single-person households, and fighting against concentrations of social housing estates in economically disadvantaged municipalities. In other words, combating the spatial segregation of poor people must be the objective of a policy intended to work proactively to reduce crime and insecurity in a municipal setting. Economic disadvantage will rarely or even never affect the entire territory of a city, but rather it will be concentrated in places where there is a specific organisation of the urban development structure and the housing market. Such places are mostly characterised by a large number of public housing estates, apartment blocks and empty or dilapidated houses. The restructuring of the housing stock or the so-called ‘decentralisation policy’ is often put forward by the authorities as a structural strategy to combat the spatial segregation of deprivation. This signifies that there will be a physical change made in an economically disadvantaged neighbourhood or part of the city by replacing rented public housing estates with (expensive) owner-occupied properties in the hope that the inhabitants of the economically disadvantaged setting will not continue to congregate in a specific neighbourhood, but will rather move out to the rest of the city and the surrounding municipalities. Although recent research in the Netherlands has detected (minor) social effects generated by this decentralisation policy (Wittebrood & van Dijk, 2007), there is a lack of sufficient scientific evidence on the (contextual) effects of restructuring on social climate and safety in various local settings. However, despite the uncertainty regarding the effectiveness of restructuring and, more specifically, the limiting of the contextual effects of economically disadvantaged areas on fear of crime, a decentralisation policy does in any case provide the benefit of reducing segregation in society. Reducing the contextual effects of economic disadvantage obviously does not mean the elimination of problems involving fear of crime in general, and avoidance behaviour in particular. Individuals and households with a low income and a low level of education will still run the greatest risk of exhibiting avoidance behaviour, but a successful restructuring of the housing market could mean that the economic situation of a municipality has a much smaller influence on residents’ avoidance behaviour.

2. Opportunities for additional research

The objective of this dissertation was to test the collective efficacy model, which originated in the US, in a Western European context. Potential prevention strategies were not evaluated within the framework of this dissertation but, as stated above, the findings made could be of assistance in developing prevention initiatives and implementing an integrated security policy. However, this dissertation primarily aims to serve a scientific importance by making a contribution to social-ecological research in the field of (Belgian) criminology. In this respect, we refer interested readers to the book "Social disorganisation, offending, fear and victimisation. Findings from Belgian studies on the urban context of crime” (Pauwels ed.), Hardyns & Van de Velde, 2010). This book summarises ecological and contextual studies of offending, victimisation and fear of crime that were conducted in Belgium between 2000 and 2009. The book has been written from a ‘social disorganisation perspective’ and combines ecological and multilevel studies of offending, fear and victimisation. It evaluates the problems and prospects of a contextual approach, which takes into account area characteristics such as urbanisation, residential stability and disorder. Testing the collective efficacy model in Flanders for the first time in this dissertation is the proverbial icing on the cake for a decade of social-ecological research within Belgian criminology. The results and
answers obtained through the analyses, as well as the resulting new questions, discussions and challenges, pave the way for another decade that promises to be as productive and fascinating as the previous one for this branch of criminology. In this paragraph some of these opportunities for additional research will be discussed.

2.1. Optimisation of the measurement instrument

We have presumed further to this research that the operationalisation of informal social control, as originally measured in the US, is not sufficiently relevant for social-ecological research in the Flemish municipal context. Based on the specific problem situations questioned to measure informal social control, it appeared impossible to quantitatively differentiate between the causes and consequences of the presence or absence of informal social control. By refining and adapting the operationalisation of informal social control to the specific socio-cultural context in future research, we are taking some of the criticism levelled at measuring collective efficacy outside the North American big-city context into account (i.e. cross-cultural validity). By considering the specific Flemish socio-cultural context, it will be ultimately possible to shed light on the processes responsible for individual differences in fear of crime. In that way, it will be possible to consolidate these research results through future studies. Moreover, the relationship between social trust and informal social control has to date been insufficiently researched in the Western European context. As such, future research could focus on the determinants of perceptions of social trust and informal social control so as to study the common/divergent indicators for both components in greater detail and gain a better insight into the construction of the collective efficacy concept.

2.2. Studying different levels of aggregation

Following on from the previous paragraph as regards the measurement of the concept of collective efficacy, we can infer that the selection of a specific spatial setting in social-ecological research has a strong determining influence on the measurement of social mechanisms and on the differentiation between the selected local settings. For example, neighbourhood clusters in a metropolis like Chicago will have different relationships with each other than municipalities in Flanders. The most suitable level of analysis for studying spatial and individual variations in crime continues to be a major subject of discussion. For a number of reasons already repeated at the beginning of this chapter, it was decided to opt for the municipality as the level of analysis for this research. The analyses have shown that the municipality is a meaningful entity in social-ecological research. The differences observed between highly urbanised and non-urbanised settings are not sufficiently available when the scope of the research is limited to neighbourhood studies in the context of big cities. For this reason it is important for social-ecological research within criminology to look not exclusively at intracity, but also at intercity variations in crime, victimisation, and fear of crime (Blau & Blau, 1982; Messner, 1982; Messner & Tardiff, 1986).

However, it is unclear as to which is the most appropriate level of aggregation in ecological studies. Many scholars consider this a huge problem and so studies use different levels of aggregation. Some studies use census tracts, others use clusters of census tracts (Bursik & Grasmick, 1993; Rovers, 1997). This concern can be justified because it has been documented that the choice of a level of aggregation influences the magnitude of correlations found between constructs at the aggregate level (Ouimet, 2000). Wooldredge (2002) concluded that the operational measure of small areas did not affect the conclusions drawn from a contextual analysis of area effects on individual level outcomes. In an empirical study, Oberwittler and...
Wikström (2009) found that small is better: small areas are more homogeneous and it is therefore easier for respondents to judge small areas.

2.3. Understanding cross-level interaction between individuals and settings

In this study, it is emphasised on several occasions that when studying contextual effects on individual behaviour, for example avoidance behaviour, it is necessary to take the contextual background as well as of the individual’s socio-demographic background characteristics into account. Through the use of a cross-level collective efficacy model, it was possible to simultaneously take municipal determinants and individual background characteristics into account to explain individual differences in avoidance behaviour. The research results set out in this dissertation provide a universal picture of the determinants of avoidance behaviour. However, the analyses did not take into account the fact that both the residential area and individuals are in constant interaction with each other and that as such they can have a differential effect on avoidance behaviour depending on the specificity of a person’s context and the socio-demographic background of an individual. Persons who have already been victimised in a residential area that is known to have high concentrations of disorder and crime can, for example, be subject to a much greater risk of exhibiting avoidance behaviour compared to victims from a municipality with low levels of disorder and crime. Therefore, the effect of an individual characteristic, in this case victimisation, can differ based on the specificity of the residential context. Conversely, the context can also have a differential effect based on an individual’s socio-demographic background characteristics. For example, the influence of economic disadvantage on avoidance behaviour can be less pronounced in men than in women. Wikström and Sampson (2003, p. 138) state that “the study of cross-level interactions may be the most promising avenue advancing knowledge about the role of the community context in crime causation”. In light of this, it would be desirable to test the above hypotheses as well as address other possible cross-level interactions to explain individual differences in crime-related characteristics in future research.

2.4. Theoretical integration and the measurement of actual exposure

In focusing on a predefined residential area as a contextual background, the differential exposure of residents to their residential area and the differential exposure of these inhabitants to contexts other than the residential area are often overlooked (Wikström & Sampson, 2003). It is primarily this point which often comes up when efforts are made to place theory-testing research, in line with the social disorganisation theory, within the framework of complex everyday reality. After all, the residential context has not been the only setting which plays a significant role for the individual in contemporary society for quite some time. The area where professional activities are carried out, the school context, the area where a person engages in leisure time activities, etc. are just a few examples of factors which do not necessarily correspond with an individual’s residential area, but which do have a significant impact on his/her daily life. For example, Pauwels’s doctoral dissertation (2007), which was one of the first contextual studies in Belgium, showed that characteristics of the neighbourhood context do not play a role in explaining individual differences in delinquent behaviour among young people. This is opposed to the school context, which does have an effect on delinquent behaviour among young people.

Further to this, future contextual research could work towards integrating various theoretical models with adequate attention being paid to different contexts to which individuals are exposed. For example, the routine activity theory looks at how individuals are differentially
exposed to problem situations and crime-related events as a result of their movements in time and space (Ceccato, 2007; Ceccato & Oberwittler, 2008; Cohen & Felson, 1979; Miethe & Meier, 1994). Scientific research has shown that differential exposure to crime has an impact on the degree to which someone becomes a victim or experiences fear (Ouimet, 2000; Wikström & Butterworth, 2006). Set against this background, time diaries or space-time budgets through which information is gathered about the ‘use’ of and ‘movement’ in the spatial area are an interesting additional source of information (Pentland, Harvey, Lawton & McColl, 1999; Wikström, 2002). These studies provide detailed insight into what activities respondents are engaged in, with whom and where during a predetermined period of time. Through this approach, the researcher obtains a better view of when a specific context influences an individual’s behaviour. Results of space-time budgets, or the study of how many times people commit acts in context, have already been highlighted in British studies on adolescent offending. We believe strongly that this method will come to play an important role in future ecological studies. Let us give an example of why space-time budgets are so important for future ecological studies. One of the major findings of Wikström and Butterworth (2006) was that young adolescents spend 38% of their waking hours at home, 20% in other places in the same neighbourhood, 28% at school and 14% outside the neighbourhood. It is precisely because of this detailed study of the places where adolescents spend their free time that we gained insight into the differences between personal neighbourhoods and administrative neighbourhoods. Studies of how adolescents spend their leisure time in Belgium show that Flemish adolescents spend almost half of their leisure time at home, and that they think it is very important that structural and cultural facilities are available in their residential areas (De Rycke et al, 2005).

Opportunity theories have appeared to be of interest for contextual research into victimisation and fear of crime (Brantingham & Brantingham, 1981; Felson, 1994; Kleemans, 1996). These theories focus on increased concentrations of potential targets and contacts between offenders and victims in highly urbanised areas. Information and data gathering with regard to crime generators (e.g. cafés, cinemas, nightclubs, etc.) and crime attractors (e.g. jewellers, department stores, etc.) are central components. Future studies should build further on previous attempts of theoretical integration by combining these theories, i.e. the routine activities theory and other opportunity theories, with the collective efficacy theory in an integrated theoretical model to explain individual differences in crime-related characteristics (Miethe & Meier, 1994; Meier, 2001; Sampson & Wooldredge, 1987; Kleemans, 1996; Ouimet, 2000).^10^

2.5. Towards a longitudinal design

Studies no longer restrict themselves to explain geographical differences in fear of crime concentrations. They also attempt to longitudinally examine changes in concentrations of fear of crime (Pauwels (ed.), Hardyns & Van de Velde, 2010). Robert Bursik gave important impetus to the implementation of longitudinal studies (Bursik, 1984; Bursik & Grasmick, 1993; Bursik & Webb, 1982, Schuermann & Kobrin, 1986). These dynamic analyses show clearly that local settings are constantly in a state of flux and that unicausal theories and models do not adequately capture the complex relationship between (fear of) crime and social/ecological structures. As the data used in this research is cross-sectional, our findings are limited to explaining differences in fear of crime and causal ordering can never be documented convincingly. From the restrictions in this study it becomes increasingly obvious

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^10^ As regards this, the research project started in 2008 in the Netherlands entitled ‘Study of peers, activities, and neighbourhoods (SPAN)’ is worth mentioning. It involves testing integrated aetiological and ecological theories to explain delinquency among young people (project leaders: Bernasco, Bruinsma & Weerman).
that panel studies measuring respondent’s development in a social context, are indispensable to empirical research into fear of crime. Longitudinal studies are necessary to increase our understanding of the long-time influences of residential settings. Such studies can identify the structural characteristics of these settings and identify their impact on fear of crime more precisely than cross-sectional studies. Such panel studies are very expensive but are of major importance to policies that are derived from these kind of studies.

2.6. A better understanding of the socially differentiated nature of fear of crime

Different studies all over the world have shown that women report more fear of crime than men (Ditton & Farrall, 2000; Ferraro, 1996; Hale, 1996). Furthermore, literature also indicates different levels of fear of crime by age, social class and ethnicity (Pleysier, 2010; Vanderveen, 1999). In this regard, it is necessary to study contextual as well as individual determinants of fear of crime separately by gender, age, social class and ethnicity to gain a better insight in the explanation of individual differences in fear of crime. One application of this research strategy is published by Hardyns, Pleysier and Pauwels (2010), who showed that individual differences in avoidance behaviour can be related to (some) other characteristics for men and women. Further research is necessary to unravel the underlying mechanisms of fear of crime for different aspects of the socio-demographic nature of individuals.

Another point of interest regarding the socially differentiated nature of fear of crime, is the multidimensional character of fear and the impact of different types of disorder and crime on fear. Avoidance behaviour is only one component of fear of crime, and as such complementary research could be carried out to study the other components of fear, such as the cognitive component (e.g. perceived risk of becoming a victim of crime) and the emotional or affective component (e.g. fear intensity and fear frequency). In addition, it is obvious that in the study on the social ecology of fear of crime, a distinction has to be made between different types of disorder and crime. Usually, a general distinction is made between social and physical disorder and between property crimes, which are offences against the property of a person or household, and violent crimes, which are offences against the physical integrity of a person. This theoretical distinction is partly motivated by the fact that different structural and social conditions are responsible for the unequal spatial distribution of both types of disorder and crime (Field 1990; Wilkinson et al. 1998).

3. Research Unit Social Analysis of Security

On the website of the Research Unit Social Analysis of Security (SVA) the intro underlines that ‘the term ‘social’ emphasizes that security is not an equal item in our society: the unequal division of power, income, social and cultural capital is also reflected in the field of security’. This posing can be enforced by the results of my dissertation, which made clear that disorder, crime, victimisation and fear of crime are unequally divided in society. To gain a better insight in the development of crime-related outcomes, it is necessary to explain and declare these inequalities, for example by testing theoretical models which offer a causal order and spatial dimension to explain differences in crime-related outcomes.

This dissertation can be conceived as part of the research discipline in criminology that focuses on the social ecology of crime and on the effects of ecological settings on a range of outcomes related to crime and insecurity. I think these area studies of crime and insecurity play and need to play an important role within the research line Urban Crime & Delinquency.
of the Research Unit Social Analysis of Security (SVA), from both a theoretical and a methodological point of view.

3.1. Theoretical importance

The analytical perspective on crime and insecurity, or what we referred to as an analytical approach to crime, seems to be a very fruitful perspective in analysing the macro-micro context of problems related to crime and insecurity. Within the field of sociology, this analytical tradition has already proven to be useful because it forces one to reflect about causes, consequences and the analytical level at which all central concepts are situated.

From a theoretical point of view, it is clear that the social disorganisation perspective has proven to be a useful framework in the study of crime and insecurity at local levels, but nevertheless one must not overestimate its power. There is more to it than social disorganisation theory alone, especially when it comes to explaining individual and neighbourhood differences in crime, be it offending, victimisation or ‘fear’. However, as has already been stated above and by other scholars, it is clear that theoretical integration with opportunity-based models is valuable. It is clear that the integration between a social disorganisation theory and an opportunity driven model, such as the routine-activity approach, is valuable because crime tends not to be exclusively concentrated in areas that are burdened by social problems, such as a lack of social trust and disorder. In fact, it may be constructive to further distinguish between types of dependent variables when studying the social ecology of insecurity at multiple levels of analysis. One valuable approach put forward by Wikström and Sampson (2003) proposes integrating three types of characteristics of ecological settings, i.e. resources (structural characteristics such as disadvantage), rules (moral climate and social cohesion) and routines (activities that take place and occur in the ecological setting). This model is referred to as the 3-R model.\textsuperscript{11} These are of importance as they shape behavioural settings, i.e. the settings that individuals occupy during their daily routines. From this model it becomes clear that every individual participates in different settings. This is important because social disorganisation theory has predominantly focused on the residential setting.

Furthermore, one of the central points when conducting this kind of studies is the importance of taking into account ecological mechanisms. A recent development of social disorganisation theory, the collective efficacy perspective by Sampson and his colleagues, has proven that it is very important to actually measure these intervening mechanisms that explain why some ecological structures are strongly related to outcomes related to crime and insecurity. Although social capital and social trust are important mechanisms, it is still necessary to look at the effects of low levels of informal control on outcomes such as crime and disorder and the consequences for the individuals that inhabit or use the areas that are characterised by ecological concentrations of crime and disorder. This brings us to one key reflection that has to be made when studying the social ecology of crime: more research is needed to evaluate the contextual influences of ecological settings with regard to the behaviour and attitudes of individuals. Therefore, although context matters, the magnitude of the contextual effect is affected by the dependent variables and individual level characteristics. Social disorganisation theory provides scholars with explanatory concepts that are more effective when it comes to explaining individual differences in local victimisation and components of fear of crime, especially avoidance behaviour and perceived risk of victimisation.

\textsuperscript{11} See Appendix 4.
3.2. Methodological importance

From a methodological point of view, some major criticisms remain unsolved. First of all, the accurate conceptual definition and measurement of ecological settings will continue to challenge (or plague) ecological and contextual studies, be these settings street blocks, neighbourhoods or larger units such as municipalities. Although it has been convincingly demonstrated that small areas are much more important than large ones when the concentration of criminal events is studied, this does not mean that larger areas, such as cities, should be forgotten in ecological studies. Micro-places are situated in larger settings and from a multilevel framework it might be interesting to study the interaction between characteristics of micro-places and larger settings. Secondly, and strongly related to the conceptual definition and measurement of ecological settings, the measurement of actual exposure is crucial. Additional methods are needed to measure the amount of time spent in an ecological setting. With regard to the study of adolescent offending, one such method is the above-mentioned Space-Time Budget Analysis, a new method that allows for collecting exact information on what adolescents have been doing, and more especially where. This is important for understanding activity patterns and daily routines of individuals, so that we can identify the kinds of settings that individuals are exposed to. Such information is of equal importance for the study of victimisation and fear of crime. The use of surveys has become widespread in the study of contextual effects and, thanks to developments in our knowledge about survey measurement issues, improvements have been made. Surveys are for example used to measure both characteristics of individuals and settings. Regarding measurements of ecological processes specifically, huge progress has been made in the methods used to measure the intervening social processes or mechanisms at work. At the same time we must keep a critical eye on the surveys used to answer our research questions. One question that deserves more attention in future studies is the one that deals with the issue of methodology. It is clear that scholars predominantly use surveys of inhabitants, but nevertheless, when it comes to measuring different aspects of the social climate of areas, it is important to ask oneself: what methods are best suited for assessing aspects to do with the social climate of an area? Two ecological mechanisms are often assessed in contemporary research into the social ecology of crime: collective efficacy/social cohesion on the one hand and disorder on the other hand. Traditionally surveys use area inhabitants as respondents and then aggregate such survey responses to create measures of the ecological processes at work. This is not without its flaws. There is a danger that measurement of ecological processes, and thus the creation of ecological variables based on surveys that are also used to measure variables at the individual level, may create artificial results. It may be better to use other sources (different survey types and different structural data) when studying contextual effects. In fact, at this moment we are able to do so in a large-scale neighbourhood study in Ghent, which has started in 2011. This study we will make use of key informants to measure ecological processes such as collective efficacy and disorder on the one hand and inhabitants of neighbourhoods to measure personal characteristics, social capital and individual behaviour related to crime and insecurity on the other hand. Furthermore we can rely on administrative data with respect to social structural characteristics. This project has the ambition to work with a longitudinal design, which has never been done before in Belgian studies towards the social ecology of crime.

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12 This neighbourhood study can be situated within the project ‘Social Capital and Health’ under the supervision of Prof. dr. Sara Willems (Department of Family Medicine and Primary Health Care – Ghent University).
It may be clear that research into survey measurement error should be seen as an integral part of the study of the social ecology of crime and insecurity. And because surveys play such a key role, it is important to understand the effects of method bias, response error and questionnaire error in surveys that are applied in contextual studies.

So far the number of dependent variables has been somewhat limited in Belgian ecological studies of insecurity. There are other unexplored attitudes that are related to the field of criminology, such as trust in the criminal justice system, trust in the police and related attitudes that may be worth studying from a contextual perspective. In short, some knowledge has been produced, but lots of questions remain unanswered. I am convinced these open questions will provide us with many opportunities to further understand the effects of ecological processes in shaping attitudes and behaviour within the Research Unit Social Analysis of Security (SVA).

3.3. Word of thanks

To conclude, I want to extend a word of gratitude to the editor of this book, and also the promotor of my doctoral dissertation, Prof. dr. Paul Ponsaers. I would like to describe Paul as the tremendous experienced and always attentive ‘watchdog’ during my doctoral path. All the time he intently looked on the logical and balanced structure of my research, the feasibility of the planning and the managing of deadlines. He always took the lead in organising meetings and ringing the alarm bell when crucial knots needed to be cut. He constantly radiated his many years’ experience within the academic research, which gave me a self-confident feeling. His supervising and critical eye was always there, but never oppressive. On the contrary, the freedom of action he gave me to complete my research within the Research Unit Social Analysis of Security (SVA) meant an enormous stimulus to persevere and succeed. More than anybody else he knows how to maximise the output and how to make the most of one’s qualities by taking into account someone’s personality. I will never forget this agreeable and unforced atmosphere at work. Paul, to put it briefly: a well-meaning and warm-hearted thanks! I can only but congratulate you for your outstanding and amazing career; this book forms a beautiful and well-deserved pinnacle!

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Appendix 1: Operationalisation avoidance behaviour

Do you ever avoid...

**Item 1** … certain areas in your municipality because you think they are not safe?
**Item 2** … opening the door for strangers because you think it is not safe?
**Item 3** … leaving home after dark because you think it is not safe?

1: Never
2: Seldom
3: Sometimes
4: Often
5: Very often

7: Don’t know *(ENQ: don’t read)*
8: No answer

Appendix 2: Operationalisations macro model

<table>
<thead>
<tr>
<th>Construct</th>
<th>Operationalisation</th>
<th>Factor loading</th>
<th>Reliability (Alpha)</th>
<th>Ecological reliability (Lambda)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urbanisation</td>
<td>The number of inhabitants divided by the surface area of the municipality (in square kilometres).</td>
<td>/</td>
<td>/</td>
<td>/</td>
</tr>
<tr>
<td>Social trust</td>
<td>The proportion of residents that have not moved out the municipality of residence within the past five years. (&lt; residential stability)</td>
<td>/</td>
<td>/</td>
<td>/</td>
</tr>
<tr>
<td>Informal social control</td>
<td>The proportion of residents that live alone without a partner or children. (&lt; single-adult households)</td>
<td>/</td>
<td>/</td>
<td>/</td>
</tr>
<tr>
<td>Disorder and crime (13 items)</td>
<td>Mean score on the perceived disorder and crime scale. Do you consider any of the following to be a problem in your neighbourhood?: Theft of bicycles. Theft from car. Threats. Littered and soiled house fronts/buildings. Rudeness from groups of adolescents. Harassing of people in the streets. Car accidents. Litter in public. Destruction of phone booths and bus stops. Burglary in homes or other buildings. Violence. Incivilities related to drug abuse. Car theft.</td>
<td>0.91</td>
<td>0.92</td>
<td></td>
</tr>
<tr>
<td>Avoidance behaviour (3 items)</td>
<td>Mean score on the avoidance behaviour scale. Do you ever avoid … certain areas in your municipality because you think they are not safe? opening the door for strangers because you think it is not safe? leaving home after dark because you think it is not safe?</td>
<td>0.64</td>
<td>0.88</td>
<td></td>
</tr>
</tbody>
</table>

Appendix 3: Operationalisations cross-level model

<table>
<thead>
<tr>
<th>Construct</th>
<th>Operationalisation</th>
<th>Factor loading</th>
<th>Reliability (Alpha)</th>
<th>Ecological reliability (Lambda)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DATA MUNICIPALTIES (N = 40)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>(SVR)</strong></td>
<td></td>
<td>0.78</td>
<td>/</td>
<td>/</td>
</tr>
<tr>
<td>Ethic heterogeneity</td>
<td>The percentage of foreigners per municipality in 2006 (individuals who have not the Belgian nationality).</td>
<td>/</td>
<td>/</td>
<td>/</td>
</tr>
<tr>
<td><strong>(SVR)</strong></td>
<td></td>
<td>0.86</td>
<td>/</td>
<td>/</td>
</tr>
<tr>
<td>Residential stability</td>
<td>The percentage of inhabitants in a municipality who have been</td>
<td>/</td>
<td>/</td>
<td>/</td>
</tr>
<tr>
<td><strong>(SVR)</strong></td>
<td></td>
<td>0.89</td>
<td>/</td>
<td>/</td>
</tr>
</tbody>
</table>
residents there for more than five years.

Social trust
Mean score on the perceived social trust scale.
<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>People around here are willing to help their neighbours.</td>
<td>0.75</td>
<td></td>
</tr>
<tr>
<td>This is a close-knit neighbourhood.</td>
<td>0.78</td>
<td></td>
</tr>
<tr>
<td>People in this neighbourhood can be trusted.</td>
<td>0.62</td>
<td></td>
</tr>
<tr>
<td>People in this neighbourhood generally don’t get along with each other. (R)</td>
<td>0.57</td>
<td></td>
</tr>
<tr>
<td>Contacts between inhabitants in this neighbourhood are generally positive.</td>
<td>0.74</td>
<td></td>
</tr>
</tbody>
</table>

Informal social control
Mean score on the perceived informal social control scale.
<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Neighbours could be counted on to intervene when … children were skipping school and hanging out on a street corner.</td>
<td>0.62</td>
<td></td>
</tr>
<tr>
<td>children were spray-painting graffiti on a local building.</td>
<td>0.82</td>
<td></td>
</tr>
<tr>
<td>Children were showing disrespect to adults.</td>
<td>0.84</td>
<td></td>
</tr>
<tr>
<td>A fight broke out in front of their house.</td>
<td>0.78</td>
<td></td>
</tr>
</tbody>
</table>

Disorder
Mean score on the perceived disorder and crime scale.
<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Do you consider any of the following to be a problem in your neighbourhood?:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Theft of bicycles.</td>
<td>0.50</td>
<td></td>
</tr>
<tr>
<td>Theft from car.</td>
<td>0.67</td>
<td></td>
</tr>
<tr>
<td>Threats.</td>
<td>0.70</td>
<td></td>
</tr>
<tr>
<td>Littered and soiled house fronts/buildings.</td>
<td>0.66</td>
<td></td>
</tr>
<tr>
<td>Rudeness from groups of adolescents.</td>
<td>0.62</td>
<td></td>
</tr>
<tr>
<td>Harassing of people in the streets.</td>
<td>0.75</td>
<td></td>
</tr>
<tr>
<td>Car accidents.</td>
<td>0.58</td>
<td></td>
</tr>
<tr>
<td>Litter in public.</td>
<td>0.56</td>
<td></td>
</tr>
<tr>
<td>Destruction of phone booths and bus stops.</td>
<td>0.66</td>
<td></td>
</tr>
<tr>
<td>Burglary in homes or other buildings.</td>
<td>0.59</td>
<td></td>
</tr>
<tr>
<td>Violence.</td>
<td>0.83</td>
<td></td>
</tr>
<tr>
<td>Incivilities related to drug abuse.</td>
<td>0.73</td>
<td></td>
</tr>
<tr>
<td>Car theft.</td>
<td>0.72</td>
<td></td>
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</tbody>
</table>

Crime
The prevalence of assaults, which can be described as all violations against the physical integrity, per 1,000 inhabitants in the municipality. (< violent crime rate)

<p>| | |</p>
<table>
<thead>
<tr>
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<tbody>
<tr>
<td>DATA INHABITANTS OF MUNICIPALITIES (N = 2,080)</td>
<td></td>
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</tbody>
</table>

Socio-economic background characteristics
Gender, age, ethnicity, family situation, income and level of education.

Victimisation
Respondents who had been a victim during the last twelve months in their municipality of at least one of the following criminal offences: burglary with theft, car theft, theft from cars, bicycle theft, theft outside of the house and physical violence (unrelated to theft). In the case of burglary, car theft and theft from cars other members of the household are also taken into account.

Perceived disorder
Do you consider any of the following to be a problem in your neighbourhood?:

<p>| | |</p>
<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Adolescents hanging around on street corners.</td>
<td>0.64</td>
</tr>
<tr>
<td>Groups of adolescents harassing persons to obtain money or goods.</td>
<td>0.75</td>
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<tr>
<td>Men drinking alcohol in public.</td>
<td>0.69</td>
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<tr>
<td>Persons selling drugs (hash, weed, etc.) on the streets.</td>
<td>0.75</td>
</tr>
<tr>
<td>People being threatened on the streets with weapons or knives.</td>
<td>0.68</td>
</tr>
<tr>
<td>Fights between adolescents on the streets.</td>
<td>0.79</td>
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<tr>
<td>Men urinating in public.</td>
<td>0.58</td>
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</tbody>
</table>

Avoidance behaviour
Do you ever avoid …

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<tbody>
<tr>
<td>certain areas in your municipality because you think they are not safe?</td>
<td>0.71</td>
</tr>
<tr>
<td>opening the door for strangers because you think it is not safe?</td>
<td>0.55</td>
</tr>
<tr>
<td>leaving home after dark because you think it is not safe?</td>
<td>0.78</td>
</tr>
</tbody>
</table>