Fear drop and fear change

Perceptions of security in the 21st century: their formation, trends, and impact in society

Marnix Eysink Smeets
Amsterdam, August 2021

A thesis submitted to the University of Cardiff in partial fulfilment of the requirements for the degree of Doctor of Philosophy

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Abstract

This thesis is an exploratory study of perceptions of security in the 21st century, the way they form and have developed in recent decades, as well as their impact in society. The study is rooted in the criminological sub-discipline of fear of crime studies, a research tradition that developed in the second half of the last century. At that time, the level of violent (street) and property crimes was rising in western societies, while public fear of this crime was thought to form a social problem in itself. The research tradition that developed yielded an extensive body of knowledge on, for instance, the operationalisation, measurement, and determinants of fear of crime, but remained less developed in theory formation and aspects such as development of fear of crime over time and its impact in society. From the last decade of the 20th century, in western societies the prevalence of 'traditional' crime decreased substantially (the 'crime drop'), while the new millennium confronted these societies with new types of crime and related threats that shook the public (the 'crime change'). The research tradition of fear of crime studies has not shown great agility in accommodating these changes, while these have made the need for a more thorough theoretical foundation even greater. Therefore, an exploratory exercise was undertaken that, based on a mix of empirical and conceptual studies and reviews of the literature, resulted in a *process-oriented perspective on perceptions of security*. This perspective is founded on an interdisciplinary theoretical base, in which notions from social-psychology (and stress-studies in particular) and complexity science form a major part. The study makes plausible that 'new fears' (such as fear of terrorism, cybercrime or even the corona pandemic) form in similar ways as 'traditional' fear of crime and yield similar 'stone in the pond' effects in society. These effects feed back into the process in which perceptions of security form, making this process circular *by definition*. The study also shows that, similar to what has been observed in the prevalence of crime, both a *fear drop* and a *fear change* can be observed in western societies: the prevalence of 'traditional' fear of crime decreased, while 'new fears' emerged and increased in prevalence.

Acknowledgements

First and foremost, I am greatly indebted to Prof. Martin Innes and Prof. Trevor Jones of Cardiff University, my academic supervisors in this thesis. In an elegant, erudite, and stimulating way, they always knew how to bring me one step further again, making me see blind spots I was not aware of before. From their feedback, I have sincerely grown as an academic, making this whole exercise more than worthwhile. Prof. Martin Innes deserves an extra word of gratitude, as I was inspired by his work since his first publications on *signal crime*, long before we met in person. With that work, he sowed the first seeds for this thesis.

I am greatly indebted as well to my university (Inholland University of Applied Sciences), who provided me with the opportunity to spend time on this thesis for four years. I hope my research group at the university has benefited and will still benefit from that opportunity. I thank my (late) father and brother for convincing me to accept the offer my university made, making me realise that it gave me the opportunity to answer the questions I had gathered throughout my career.

I thank all the friends, colleagues, professionals and even family members I had the pleasure to work with on many of the part studies, discuss specific issues, or who provided me with feedback on earlier texts, intermediate findings, or lines of thinking. Not to forget those who provided me with a listening ear or a good glass of whisky when I psychologically hit a wall. I enjoyed the enthusiasm of my youngest team members, the intellectual fine grinding I could do with senior fellow researchers, the open loyalty I experienced in all.

Finally, I thank my daughter, Julia, for her patience while I was working on this thesis. I dedicate this thesis to her, and to all other sons and daughters of this world. In the hope they will live in a world that continues to grow a little bit more secure and just with every day.

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1. Introduction

Have you ever felt cold? Most people have. And did you ever wonder what *makes* someone feel cold*?* 'A low temperature' is probably the first thing most people will think of. They certainly have a point. But people can feel cold in different ways, for different reasons, in many different circumstances. Looking more closely, the temperature of the surroundings turns out to be only one of the factors in the equation. Because so is humidity, wind, or whether you are in the sunshine or not. And these are just some meteorological factors. Who you are, the way you are dressed or your health and physical condition are just as important. Just like where you are (cf. indoors or outdoors), what you are used to and what you are doing. Are you active or passive? Are you watching a scary movie? In bed with a high fever? Or did you overhear other people complain about the cold, which made you feel cold as well?

In our north-western countries, we generally do not like being cold. We consider it an uncomfortable experience. But not only that: it has consequences for our behaviour, as we try to keep uncomfortable sensations at bay. By taking protective measures for instance (dressing well, insulating and heating our house), or by avoidance - staying indoors, taking the car instead of walking or by choosing a warm holiday destination. Some people even emigrate, like the pensioners that swap the Dutch cold permanently for the comfortable warmth of southern Spain. For some, keeping coldness at bay is less easy than for others, however. A stiff spell of frost can mean a life-threatening event for a homeless person (who hopes for a shelter or an extra cardboard box), whereas more affluent people easily find comfort round their open fire as they enjoy a glass of German *glühwein* to celebrate the cold outside.

These seemingly individual behaviours, related to apparently individual experiences, have consequences on the collective level as well. They have rippling effects through society. In my Dutch neighbourhood for instance, as soon as it feels comfortable outside, doors fly open, and people pour out into the street. Young and old meet, talk, play. Social cohesion in the making. In winter, however, we cocoon inside, with doors closed, curtains drawn. We meet each other less, thus social interaction in the neighbourhood drops to a lower level. But when we meet, we find in the weather a perfect starting point for conversation. Sometimes even as a means of 'letting off' - a coping by emotional sharing - when we the weather really annoys us. Whole industries have even grown to prevent us feeling cold. The heating and insulation industry for instance, or the clothing industry. Other industries may not have that as their primary goal, but still do their best to make you feel warm and comfortable, knowing that those who do not provide a comfortable environment will rapidly see their customer base – and thus turnover - decline. So, we have indoor shopping malls that shelter us from the weather. Our shops and restaurants are comfortably heated and/or air-conditioned. A Scandinavian car manufacturer even offers the option that your

car heats itself before you set of. Our energy industry of course provides us with the energy we need to do all this. And our government oversees those industries, sometimes even setting criteria that directly address protection from the cold, such as in the building quality of houses and real estate.

All those activities have some unforeseen effects as well, however. One of them is that the better we have become in the prevention of being cold, the more our standards have been raised. This makes us feel a sense of unacceptable coldness in situations where we may once found that normal and acceptable[1]. But worse, it has become increasingly clear that the use of the same energy we need to protect us from the cold in the short run slowly but – almost – certainly leads to the warming of our whole planet in the long run. A warming that, paradoxically, we do not find comfortable at all, as it sets in motion a (further) chain of effects that threatens our very existence. It proves hard though, to turn that threatening development around. It requires a fundamental change in attitudes and behaviour of an array of international, political, institutional, commercial and individuals, each with its own interests, capabilities, and power relations. And whose *individual* interests in the short term, often conflict with the *collective* interest in the long run.

The small question this exploration of this subject started with – *what makes a person feel cold?* – may be very simple and straightforward in itself, but as soon as one starts to dig into it a complex world opens. A complex world that consists of the many factors that form that experience; the multiple consequences it has in our daily lives, both short term and on an individual level; and in the long run at the level of our societies, where effects can be almost inverted. And where we - at least to a certain extent - can address the issue of coldness at the individual or collective level in the short term, but where creating a balance with the effects in the long run is a major challenge.

1.1   A study on perceptions of security

Is this a study in meteorology? No, this is a criminological study. A study of perceptions of security, or of 'fear of crime', as it is more commonly known. With these perceptions of security, we can observe many of the same patterns described above, however. Fear of crime can: have different manifestations, with different drivers, in different circumstances; influence our behaviour, both at an individual and at a collective level; induce rippling effects cascading through society - socially, commercially, politically; it has created whole industries and has influenced others. Our ways to avoid these uncomfortable perceptions in the short run can have, paradoxically again, detrimental effects in the long run. This thesis aims to improve our understanding of these perceptions of security. Of the way they form, the different shapes they may take, and the impact they can have in society. I will, for

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[1] The average temperature in a British house in winter or instance was in 1970 12 C. (Fleming, 2020)

instance, integrate theoretical notions from social-psychology and complexity science into a *process-oriented perspective on perceptions of security;* show how fear of crime has both decreased and changed in recent decades; widen the scope to include those 'changed' fears as well; and explore the societal impacts of fear of crime in a more profound way than has been done before, to show that that impact is just as far reaching and diverse as the impact of our 'feeling of coldness' I described above.

The study of fear of crime, as a research tradition within criminology, can be traced back to the 1960s (Lee, 2007; Hough, 2018; Simon, 2018). For those who are not familiar with this criminological subdiscipline, the term 'fear of crime' may be somewhat confusing, as it is used as an 'umbrella term' encompassing much more than (just) fear of (just) crime. It encompasses a whole range of social reactions to crime, disorder and insecurity which is described in the literature in a great variety of terms. From public perceptions, opinions, attitudes and emotions around crime and disorder, to concerns, worries or anxieties related to crime in general, to specific crimes, to different kinds of disorder or to perceived insecurity in general. And that is just a short summary (see cf. Dubow, McCabe and Kaplan, 1979; Ferraro and LaGrange, 1987; Hale, 1996; Vanderveen, 2006; Gray, Jackson and Farrall, 2011b, 2011a; Innes, 2017).

At the inception of this research tradition, crime in the streets was going up in the Anglo-Saxon countries that pioneered this domain. This stirred up concerns about crime and public safety among the electorate, according to some 'driven by political interests' (Beckett, 1999; Lee, 2007; Simon, 2007). The term 'fear of crime' was soon coined. That 'fear' was considered detrimental to both individuals and society, as it was thought to affect the wellbeing of citizens and constrain their behaviour. That made the fear of crime a social problem in itself, worthy of meticulous scrutiny by politicians, policymakers, and academia (Brooks, 1967; Gainey, Alper, & Chappell, 2011; Lewis, 1980; Liska, Sanchirico, & Reed, 1988; Potter & Kappele, 1998; Salem & Lewis, 1986). From this time on, fear of crime studies developed, producing an ever-growing *body of knowledge.* This thesis raises the question, however, whether that *body of knowledge* has kept up with the changes in the security landscape in our western societies in recent years.

1.1.1 Are fear of crime studies keeping up with the fear of crime?

I have been a professional in Dutch security policy for all my (working) life. Starting out as a police inspector in the early 1980s, I became a security consultant some years later. I slowly drifted into policy research in the nineties and into (applied) scientific research in the beginning of the millennium. For most of that period, crime and disorder in the streets and other 'traditional' violent and property crime formed the greatest security concern for the Dutch population, not unlike in many other western countries. It is exactly those concerns (worries, anxieties, fears, etcetera) that formed the primary focus of fear of crime studies. In the new millennium the 'security' landscape started to change substantially, however.

The prevalence of traditional crime decreased significantly and structurally; a trend often described as the *crime drop* (Blumstein, 2006)*.* At the same time, new threats entered the playing field, becoming especially manifest in the second decade of the millennium. Cybercrime came up, alongside related cyber security threats (Henson, Reyns and Fisher, 2013; Tcherni et al., 2016; Virtanen, 2017). New forms of terrorism started to shake the western world (Morgan, 2004; Mythen & Walklate, 2006; Sageman, 2014; Wessely, 2005). In the wake of a refugee-crisis (cr)immigration became an issue in public security perceptions in many countries as well (Beyer & Matthes, 2015; Brouwer, van der Woude, & van der Leun, 2017; Pickett, 2015). In this way, the western world perceived a variety of new threats to security, while the context in which these threats were experienced was perceived as new as well. With a digital world now in addition to the analogue world; media and communications taking on new and different forms; and with changes in political styles of leadership and new geo-political tensions.

In my research practice I saw these new developments have great impact on the public perceptions of security in the Netherlands. The public 'fear of crime' took on different forms and manifested itself in new ways. When I started this study in 2014 it seemed to me however, that the criminological discipline of fear of crime studies had not picked up these new developments at pace. Research on these 'new' issues remained remarkably scarce. This still remains the case, as we will later see in this thesis. But can we view, research, and interpret fear of crime in the same way we started out with fifty years ago, in a security landscape that has seen such fundamental change?

1.1.2   A research tradition with limited impact?

It is not unusual to take some time before scientific insights 'trickle down' into public policy. In the case of fear of crime studies, the question not only needs to be raised: 'how much time it has taken?', but also 'to what extent findings from fear of crime studies found their way into public policy?'. In the Netherlands for instance, I saw politicians and public policymakers often *state* that they considered public perceptions of security of the utmost importance (cf. VVD, CDA, D66, & ChristenUnie (2017). At the same time, I rarely saw serious attempts to incorporate insights from fear of crime studies into security policy. Of course, this may in part be explained by a (supposed) lack of interest in scientific knowledge among politicians, policymakers, or practitioners. Perhaps even as an example of the lack of respect for academic knowledge that is presumed to be growing in contemporary times. It may also be explained by a certain lack of ambition within criminology to fulfil such a function. Although in today's 'knowledge society' it is considered of growing importance that science has *societal impact,*[2] in criminology that topic has frequently been the subject of – sometimes fierce – debate. To what extent, in what way and against what price should and could criminology play such a *public* role indeed (Currie, 2007; Matthews, 2009; Loader

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[2] (see cf. Academy of Finland, 2016; Science Europe, 2017; van den Akker and Spaapen, 2017)

and Sparks, 2010, 2011; Ruggiero, 2012; Turner, 2013; Kramer, 2016; Mayhew, 2016)? In recent years, however, in the criminological community the desire to play such a role has become increasingly prominent. But do we also know what is needed to fulfil it? Reviewing the state-of-the art in fear of crime research however, another explanation came to my mind as well. Could it be that due to major gaps in the body-of-knowledge in fear of crime studies, the research domain just did not have enough on offer to be of use for politics, policy, and practice? Thus, even when impact *is* desired, there was (and is) just not enough to accomplish that?

1.1.3   Gaps in the body of knowledge

In my use of the fear of crime literature over the years, the research tradition had struck me as a 'researchers'-research tradition, with a very quantitative orientation and an emphasis on – and fierce debates about – operationalization and measurement. It had also yielded a broad insight about determinants of fear of crime, often clustered in 'models' such as the victimization model (cf. Tseloni & Zarafonitou, 2008), the vulnerability model (cf. Killias, 1990) or the social disorganization model (cf. Markowitz, Bellair, Liska, & Liu, 2001b). On *how these fears form* for instance the body of knowledge remained thin, a solid theoretical foundation absent. This meant that, with some exceptions, the *black box* of fear of crime is still predominantly closed. In recent years, influential authors like Jackson c.s. stressed the need to incorporate more theoretical notions from other disciplines – and undertook attempts to do that themselves (see cf. Gouseti & Jackson, 2016; Gray et al., 2011b; Jackson, 2002) – but progress was still relatively slow. From my work in policy research however, I had learned that other disciplines had theoretical notions on offer that almost begged to be used.

Furthermore, fear of crime studies almost solely seemed to focus on fear of crime at the individual level, leaving the fear of crime as a phenomenon of collectives (like communities or societies) under researched. Although Ditton, Farrall, Bannister, & Gilchrist (2000, p. 200) coined the intriguing criminological maxim that *fear of crime goes up when crime goes up, but does not come down when crime goes down*, studies into the longitudinal trends in fear of crime that could support this maxim still seemed rare. The same could be said about the effects or consequences of fear of crime. In the literature, fear of crime had often been declared a social problem in itself, but *why* that was the case (and to what extent) I found less thoroughly described. But *if* that is the case, the question must be raised whether fear of crime and its effects can be mitigated, in what way(s) and by whom? On those questions I found the available knowledge scarce as well. Overall, the hypothesis that I departed with in this study was that the body of knowledge of fear of crime studies is strong on operationalization, measurement, and determinants of fear of crime. However, it still falls short where it concerns the *understanding, relevanc*e, *urgency* and the *'influence-ability'* of that phenomenon. That may explain why the insights from fear of crime studies have yet to be widely used in public security policy.

1.1.4   Reaching the boundaries of its dominant research paradigm?

In my use of the fear of crime literature over the years, I had come to know the dominant research paradigm as positivist, reductionist and quantitative in nature. I started to wonder whether that same dominant paradigm did not stand in the way of a deeper, further understanding of fear of crime. Could it be that we had come to the boundaries of what could be reached by this paradigm and by the research methods that come with it? Could it be that, to paraphrase Pleysier's (2008b, p. 309) observation, 'the study of fear of crime was trapped in the harness of crime & victimisation surveys'? I more and more came to think he had a point. Coming from a more qualitative research tradition myself, I was gradually shifting to a *mixed methods* approach in my work on fear of crime, as this brought me closer to an understanding of the fear of crime in a specific context than was afforded by a purely quantitative or qualitative approach. It also led me to see the complexity of fear of crime, stressing the need for a more *holistic* research paradigm to complement the existing *reductionistic* one*.*

I started to feel constrained by another aspect of the dominant research paradigm and dominant tradition as well. Most fear of crime studies describe the fear of crime in a population, a community, a neighbourhood. But that obscures the fact that in those studies fear of crime is mostly operationalized and measured at the individual level. In this way the described fear of crime in a society, community, neighbourhood is in fact no more than the sum of the 'fears' of the constituting individuals. But could it be that is only 'half the story'? Could it be that fear of crime can manifest itself in a neighbourhood, community, society in another way than as the sum of the 'fears' of individuals? Such as in the form of a moral panic, or a culture of fear? Of course, these phenomena have been extensively researched and described in the academic literature, but mostly in research domains *other* than fear of crime studies, as if it concerns completely different phenomena. Could it be, however, that this way we systematically overlook connections between fear of crime at the individual level and manifestations of that fear at a higher aggregation level? That we tend to overlook feedback loops between these different levels as well, that we have to incorporate in the equation to come to a better understanding? Could it be that this forms a blind spot that we cannot mend using the traditional research paradigm? And that, here too, a more holistic perspective is needed, to bring us beyond the boundaries that come with the dominant paradigm?

During my research, I found that I was not the only one with this such doubts. In 2018 for instance, renowned fear of crime researchers Lee & Mythen (2018) published their *Routledge International Handbook on Fear of Crime.* A handbook that, as Stephen Farrall wrote on the back cover, "breathes new life in the study of fear of crime". Seeing many of the same challenges, the same gaps in the body of knowledge I described above, Lee & Mythen brought together 43 international fear of crime researchers, to reflect on new

directions for the study of fear of crime. I was one of them (with a preliminary version of the material presented in chapter 7). In their handbook, Lee & Mythen stressed the need to 'stretch up the boundaries of fear of crime studies'. By liberating itself, as Richards & Lee (2018) describe it one chapter, from the quantitative, reductionist paradigm of 'northern criminology' and come to a more holistic research paradigm, a paradigm that gives more room to complexity. This involves paying attention to 'newer' fears of crime as well, such as the fear of terrorism or cybercrime. Lee & Mythen pointed in their handbook as well at the relatively shallow theoretical basis and – for instance by including various contributions on moral panics in their handbook – on the necessity to not only focus on the fear of crime at the individual level. For me, their work was a sign that the hypotheses I began with could be valid indeed, and that the direction in which I was heading could be promising.

1.2   Aim, character, and research questions

1.2.1   Research aim and character

This thesis travels on the same road that Lee & Mythen took, gratefully building further on their contribution. Its aim therefore is to stretch the boundaries of fear of crime studies, to search for a more solid theoretical foundation that can enhance our understanding of fear of crime. And to help strengthen the body of knowledge where it is still relatively thin.

Of course, this aim has consequences for the character of the study that is described in this thesis. This study is not of the *confirmatory* character that may be usual for a thesis. This is above all an *explorative* study. Research of this character is often performed when a problem is not yet clearly defined; when theoretical foundations are thin; conceptual and/or theoretical formation in the research domain is stagnating; specific aspects of the phenomenon at hand are under-researched; and/or when the research over time has reached a certain maturity, but relevant changes have meanwhile taken place in the research domain that have not been accounted for (Stebbins 1997). As described above, fear of crime studies meets many of these criteria. It is important to stress that exploratory research does not seek final and conclusive answers, but aims to come to new hypotheses, generalizations and "new explanations that have been previously overlooked" (ibid., p. 144). This can be accomplished by an interactive process, in which open mindedness and flexibility from the researcher are essential (Stebbins, 1997; Collins, 2006; Thompson, Wright and Bissett, 2020).

> [This is in] clear contrast with the characteristics of good confirmatory research. To put the contrast succinctly: productive exploratory research involves taking advantage of degrees of freedom, while good confirmatory practices involve limiting and reducing degrees of freedom (Tukey, 1980, cit. in Thompson, Wright, & Bissett, 2020, pp. 1–2).

The greater freedom of the researcher in exploratory research comes with obligations, however. The flexibility and open-mindedness of the researcher that is asked for is not without borders. The first 'border' is formed of course by the use of commonly accepted research methods and standards and by seeking confirmation and peer review where possible. But there is a second 'border'. Because in the choices the researcher makes in the exploration process, he or she undoubtedly leaves fingerprints. No matter how scientifically responsible, 'neutral', 'rational', 'objective' and transparent the researcher tries to be: the choices and interpretations made in the exploration process will always reflect his or her own history, experience, preferences, competences and "conceptual tools" (Reiter, 2017, p. 144). This not only requires a great awareness of one's own position in and towards the research, but also to the necessity to be as transparent as possible about one's own considerations, doubts, values, and beliefs that could have influenced the research process. That is the (main) reason why I chose to write this thesis in the first person singular. To be (better) able to share my thoughts, considerations, and doubts with the reader, thus increasing the transparency of my own role in the research.

Explorative research as interactive process

Just like confirmatory research, exploratory research starts with well-defined hypotheses and an explanation of the theoretical foundations. After that, the actual process of exploration can start, a process that "typically unfolds over the course of several studies, each executed in "concatenated" fashion with reference to the earlier ones" (Stebbins, 1997, p. 423). In this process, "exploration seeks to refine, adapt, or change the initial explanation in an itinerary process of applying other explanations to the observation in a forth-and-back between theory and reality" (Reiter, 2017, p. 144). This way, explorative studies can result in middle range theory (Merton, 1968), opening up avenues for new studies of a confirmative character. As the next paragraphs and chapters will show, it is exactly this path that I followed in this thesis. With the assumptions set out above (described and tested in greater depth in chapter 2), a clear formulation of theory, followed by a cascade of smaller and larger studies, executed over a period of six years. With each separate study building on the previous one(s). Like building bricks, slowly and gradually forming the 'wall' that is described in this thesis. A more precise account of the methodology and methods used will be presented in paragraph 1.4.

Transdisciplinary and bi-focused

The flexibility that exploratory research calls for often demands an interdisciplinary approach as well, using and integrating insights and theoretical notions from various disciplines. As will become clear from what follows in this chapter, this thesis is indeed based upon such a broad, interdisciplinary approach. But this study goes one step beyond, by integrating practice-based knowledge and experience from the professional field as well:

from for instance security professionals, local administrators or (investigative) journalists. Therefore this study can also be considered to be of *transdisciplinary* character (van den Akker and Spaapen, 2017; VanderBeken, 2019).

My country of origin is The Netherlands and my research group is based in the second largest city of that country, Rotterdam. Many of the smaller studies that inform the present thesis are therefore from the Netherlands and from the Rotterdam-region in particular. My thesis therefore may contribute to a shift in focus in fear of crime studies as called for by Lee & Mythen (2018): from the situation and paradigm from the leading northern anglo-saxon countries in this research domain (the U.K. and U.S.), to a wider range of countries. This thesis is not focussed solely on the situation in the Netherlands however, as insights and data are used from many other (mostly western) countries. In geographical terms, this thesis can therefore be characterised as bi-focused: using both Dutch (local and national) data and insights, as well as international data and findings.

1.2.2   Research questions

The central challenge of this thesis is to explore how we can *increase the understanding of the fear of crime and related perceptions of security in contemporary society, the way they form and the impact that they have in society*. Almost inseparable from that challenge is the challenge to strengthen the theoretical foundations of the study of fear of crime and related perceptions of security and/or to come to a different research paradigm. My explorative journey to answer this (these) challenge(s) will be guided by four sub questions:

1. *What can be considered the fear(s) of crime and related perceptions of security in contemporary society, and what sub constructs do they contain?*

Taking fear of traditional crime and disorder as point of departure, I will explore whether it increases our understanding when the scope is widened, to include 'newer fears' as well. Is it plausible and fruitful to view those new fears through the same 'lens' as the traditional fear of crime, together forming a 'family' of perceptions of security? Another issue that needs attention here is whether it is plausible and fruitful to not only operationalise these perceptions at the individual level, but to include manifestations at higher aggregation levels as well?

2. *How do these perceptions of security form?*

As described above, the literature describes many determinants of fear of crime, but *how* these determinants exactly contribute to fear of crime is (far) less well understood. If for instance we see signs of social disorder or when we feel vulnerable, in what way (and under what conditions) do these cues and experiences or feelings lead to fear of crime?

Apparently, there are cues in our surroundings and/or within ourselves that we perceive, process, and possibly react to, but (how) can we be more specific about the processes and mechanisms at work?

3. What are their effects in society?

As stated before, the body of knowledge in fear of crime studies on these effects is not very broad. But what *is* known about the effects of 'traditional fear of crime', and about the effects of 'newer fears' as well, such as on fear of terrorism? Can shared patterns be observed? Could it even be that a better insight into these effects increases our understanding of the societal relevance of fear of crime and related perceptions of security?

4. What are the longitudinal trends in their prevalence?

Taking once again the study of fear of crime as starting point, what do we know about the *longitudinal trends in its prevalence?* Is it indeed that fear of crime goes up when crime goes up, but does not come down when crime comes down? What can be seen in recent years when the security landscape seems to have drastically changed? What can be observed in the prevalence of traditional fear of crime, but what can be said about the prevalence of other perceptions of security as well?

I set out this study with a fifth question in mind as well. That is the question of 'influence-ability'. Can fears of crime be mitigated, if necessary? As I have stated earlier, this is often the stated aim of police, (local) government, security policy. But it is not clear to what extent mitigating perceptions of security is really within their reach. Unfortunately, during my research I had to drop this ambition. Not because this question is impossible to answer, but because I came to the limits of my span of control and – especially when the Covid-19 pandemic broke out - I had to set priorities. Therefore, the answer to this question has to wait for a future opportunity.

1.3   Theoretical foundations

1.3.1   Starting point: fear of crime studies

Criminology is itself an 'interdisciplinary discipline', a "rendezvous discipline' […] on the busy crossroads of sociology, psychology, law and philosophy*"* (Downes, cit. in Young, 2003, p. 97)*.* As fear of crime concerns the way people perceive and react to crime and disorder, one might expect that a central place in the theoretical foundations of fear of crime studies would be formed by notions from the disciplines that focus on exactly these issues. From social and environmental psychology, for instance, or from behavioural economics. Various

researchers of fear of crime stressed the fuzziness, slipperiness or complexity of the concept and the way it is formed (Cohen-Louck, 2016; Dubow, McCabe, & Kaplan, 1979; Garofalo, 1981; Gray, Jackson, & Farrall, 2011; Jackson & Gouseti, 2014; Mythen & Walklate, 2006). One might therefore expect that fear of crime studies would be a busy place of *rendezvous* with disciplines that focus on exactly that: the complexity of social problems. This is even more the case when the question of influencing fear of crime is considered as well. One could suppose then that fear of crime studies would frequently 'meet' with for instance the study of *wicked problems* (Rittel and Weber, 1973; Coyne, 2005)*.

Remarkably, the field of fear of crime studies has not developed itself (yet) to be such a point of intellectual rendezvous. As observed before, this has not gone unnoticed by various authors in the research domain, who have recommended that fear of crime studies should further develop such an interchange of disciplines and who have done their best to stimulate such development. The progress is slow however and has not led yet to a mature theoretical foundation of interdisciplinary character. Some characterize the discipline therefore as 'a-theoretical' (Pleysier, 2008b; Vauclair and Bratanova, 2017; Hough, 2018) and/or speak of 'a lack of theoretical ambition' (Hale, 1996; Jackson & Gouseti, 2012). In a commentary on the state of the art in moral panic studies Critcher (2016, p. xxxii) describes the situation even in terms of a Polo Mint, in which the characteristic 'hole in the middle' represents the absence of "any substantial explanation of the psychological mechanisms on which moral panics depend". But that is not only the case in moral panic studies, he adds, but is "equally evident in debates about fear of crime in criminology or the culture of fear in sociology" (ibid.). Critcher's metaphor may be strong and appealing, but a bit too strong for my taste, however. In my opinion, in fear of crime studies there can be found maybe not much, but at least some substance in the middle. Substance that, like in the case of criminology, is the result of a (perhaps not yet so) *busy crossroads*, with sociology and psychology as its main supply roads. In this thesis, I propose to expand the number of supply roads, by drawing on more theoretical notions from social and environmental psychology and from media and communication studies, as well as by introducing a complementary paradigm: that of complexity science.

1.3.2   Expanding the theoretical foundations

Fear of crime and perceptions of (in)security can be seen as the result of the way people perceive, evaluate, and react to their (social and physical) environment. It is about the way people perceive and give meaning to cues from that environment. It is also about the way these cues, perceptions, and meanings 'travel', for instance via discourse and media. Therefore, I will explore the use of theoretical notions and concepts from social and environmental psychology (on perception, meaning giving, stress and coping) and communication and media studies. By doing this, I will progress on my earlier work in Dutch policy research, where a wider range of theoretical notions from psychology, behavioural

studies and communication studies was used to increase the understanding in public perceptions of disorder, radicalisation, and polarisation (Eysink Smeets, Moors, Baetens, & Eysink Smeets, 2011; Eysink Smeets, Moors, Van 't Hof, & Van Den Reek Vermeulen, 2010). As these publications were in Dutch and no attempt was made to 'translate' the findings to scientific journals or other scientific publications, these studies never reached the (international) academic debate on fear of crime. This thesis aims to change that, introducing those insights and findings in the *academic* study of fear of crime, developing them further, by making use of advances in the different disciplines since then. To reduce repetition, in this chapter I will provide only a brief overview of the different concepts and theories that I will draw from in this thesis. In the chapters that follow, I will elaborate further on these concepts and notions where they are relevant to my exploration and line of argumentation.

On perception, meaning giving and coping, I will draw from Brunswick's lens model of environmental perception (Brunswick, 1944, cit. in Tapp, 2001), and from Lazarus' (1966) classic work on stress and coping. I will incorporate theoretical notions on biases and 'heuristics', including the insights from behavioural studies: from the early work of Kahneman & Tversky (1973) to more recent work like that of Ariely (2008), which may provide a greater understanding of perceptions and the routes along which they may be influenced. It is not new of course to make use of the work of for instance Bauman (2000) on *liquid modernity* and Beck's (1992, 2002, 2016) work on *risk society.* I will also incorporate work on (other) societal moods (cf. Casti, 2010). Where it concerns media and communication studies, I will draw from – amongst others Granovetter's (1973) theory on the *strength of weak ties,* Mutz 's (1989, 1992, 1998) work on *impersonal influence* and Cialdini's *Focus Theory of Normative Conduct* (Cialdini, Kallgren and Reno, 1991; Cialdini, 2003).

1.3.3   Introducing a complementary paradigm: complexity science

As mentioned above (and further substantiated in chapter 2), the mainstay of fear of crime research up to now has been mostly quantitative, cross-sectional and of a positivist and reductionist nature. But as Pieters (2010) observes, reductionist approaches too often "take a complex system apart, but by doing so they take away the complexity itself". On which he adds, somewhat crudely*:* "It is like a surgeon removing the skeleton, organs, veins and skin of a number of human subjects and then saying: 'Well, a human being consists of skeleton, organs, veins, and skin, and without exception they're also always quite dead!'" (Pieters, 2010, pp. 24–25)*.*

In recent years, this limitation has been highlighted in fear of crime studies as well. Fear of crime forms and manifests itself in a dynamic world, in different forms, in an interplay of different actors or (other) determinants. With complex reciprocal relations and influences, and temporally, socially, and geographically different contexts. Various authors therefore

point to the need "to capture the complexity and multi-dimensionality" of fear of crime (Jackson & Gouseti, 2014, p. 9), to incorporate a "dynamic perspective" (Pleysier and Cops, 2016), and to accommodate for the multitude of interconnected factors and anxieties that influence fear of crime in different cultural, temporal, geographical contexts (Hough, 2018; Mythen and Lee, 2018; Richards and Lee, 2018) .

In an ambition to do this, individual fear of crime researchers ventured new paradigms, new theoretical notions, new directions. Innes (2014; Innes & Fielding, 2002) for instance, drawing from symbolic interactionism, formulated his *signal crime perspective*[3] that helps to understand why only certain crimes in certain contexts lead to fear of crime among certain persons or communities. Van den Herrewegen (2011) used social constructivism to develop a greater understanding of the complex interactions in which fear of crime forms, manifests itself and has its consequences in a Flemish neighbourhood. In recent years Jackson & Gouseti made major advances by incorporating construal level theory and the psychological concept of psychological distance in their fear of crime research ((Jackson *et al.*, 2010; Jackson and Gouseti, 2012; Gouseti, 2018a). In more general criminology a similar effort could be observed. In Wikstrom's (2006, 2011) *situational action theory* for instance and in the more recent work of Wilcox, Land, & Hunt (2018) or Gottfredson & Hirschi (2019).

It is not only the criminological study of fear of crime - or criminology in general – that have been struggling with the question of how to allow for complexity and dynamics in their research paradigm and/or research methods. In a world that is rapidly becoming more and more complex, it is becoming a topic of debate across the full width of the social sciences. In an elegant exposé on complexity in the social sciences, Sanbonmatsu & Johnston (2019) describe a certain *unease* around that topic. Theory formation in the social sciences lacks the convincing strictness, generalizability, and predictive power of that in the physical sciences. Some see that as an argument to dismiss the social sciences as 'pseudo-science'. That is a denial however of the far greater complexity the social sciences has to deal with: Comte (1855) already recognised that the generalisability of the ideas in a field is inversely related to its complexity.

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[3] The formulation of the *Signal Crime Perspective* by Innes (2002) almost two decades ago, is driven by more or less the same aim and ambition as the present study: '*to reconfigure the ways we understand the social impacts and consequences of crime and disorder, and our responses to such occurrence"* (Innes, 2014, pp. x–xi). Drawing, amongst others, from *symbolic interactionism,* this perspective is one of the few examples of a more systemic, holistic approach to fear of crime, describing the way perceptions of insecurity are formed, have their effects, and can be influenced. It is also one of the few examples of a perspective that had major impact on security policy, both in its country of origin, the U.K. (Dalgleish & Myhill, 2004; Millie & Herrington, 2005; Tuffin, Morris, & Poole, 2007) as, later, in The Netherlands (Easton, Gunther Moor, Hoogenboom, Ponsaers, & Van Stokkom, 2008; Eysink Smeets, 2008; Eysink Smeets, Moors, Jans, & Schram, 2013; Jans, 2012) and in other countries (Peterson, 2010; Walby and Lippert, 2014). Therefore, this work forms an important steppingstone for the present study.

Comte [...] proposed that the sciences could be ordered in a hierarchy of increasing complexity and dependency and decreasing generality beginning with what he called "celestial physics" (astronomy) followed by "terrestrial physics" (physics and chemistry) and "organic physics" (biology). He postulated that the most complex and dependent and least general discipline at the top of the hierarchy is "social physics," which he later renamed "sociology" (Sanbonmatsu and Johnston, 2019, pp. 674–675).

There is an extreme trade-off between generality and precision in which basic theories do not make the precise predictions needed for the development of applications and in which applied models are lacking in generality, Sanbonmatsu & Johnston (2019) continue. The examination of proximal determinants and the generation of context-specific mathematical models are essential for prediction and application in complex disciplines. The inherent impossibility to do this in the social sciences means that "we need to redefine our conceptions of "good" and "bad" theories and "real" and "fake" science" (Sanbonmatsu and Johnston, 2019, p. 672).

When phenomena are more complex, the number of constructs that must be included in the conceptualization increases. The theory must account not only for innumerable interactions but also for feedback loops and the impact of the presumed causes on one another. Moreover, configurations of components may self-organize into distinct states that are characterized by emergent properties and effects [...] Sudden and massive changes in these dynamics may be triggered by minute changes in the environment. Because of innumerable contingencies and nonlinear relations and other conceptual and analytical challenges, the exact relation between the components of complex systems is often impossible to specify quantitatively. Thus, in contrast to the unreasonable effectiveness of mathematics in the physical sciences (Wigner, 1960), complex relations do not lend themselves to precise mathematical representation. (Sanbonmatsu and Johnston, 2019, p. 676)

To 'work around' these limitations scholars in complex disciplines developed ways to simplify their work and make research more manageable. By limiting the scope of their research to a relatively narrow set of causes and effects, by presuming unidirectional causal relations where they could be multidirectional as well, or by presuming linear relations where they might as well be non-linear (Favela, 2020). It is reductionism in the making, with its advantages (cf. manageability) and disadvantages (cf. loss of generalizability) (Turner & Baker, 2019). The major drawback, however, is *the loss of understanding of the interplay of different determinants*, thus obscuring the understanding of the issue or system at hand 'as a whole'. This brings us back to the extreme trade-off between generality and precision in the development of theories of complex phenomena as mentioned above. That trade-off will not be overcome by a further maturation of a discipline, Sanbonmatsu & Johnson propose, as it is inherent to complexity. That does not mean that theory formation or

conceptualization of complex issues is therefore irrelevant. But here a different stance is needed, in which we move beyond 'standard boxes-and-arrows thinking' and overcome "our reluctance to embrace the uncertainty and sketchiness of scientific knowledge of complex topic, and accept that non-traditional scientific practices are often necessary for the study of complex phenomena, while acknowledging the limitations […] imposed by the complexity of the study phenomena" (Sanbonmatsu and Johnston, 2019, pp. 686–687).

Complexity science

The struggle with complexity has led recently to the genesis of a new scientific approach, that of complexity science. Complexity science in essence studies the behaviour of complex systems, resulting from the dynamic interaction between the elements, 'agents' or subsystems that form that system. To understand these interaction and behaviours, a traditional, linear 'cause and effect' way of thinking is bound to fail, as these are characterized by non-linearity (Benham-Hutchins *et al.*, 2010).

Complexity science can best be described as a loosely formed field of study, encompassing a collection of theories and conceptual tools from an array of disciplines (Benham-Hutchins et al., 2010; Pieters, 2010; Stauffer, 2018; Turner & Baker, 2019). Waldrop (1992, cit in: Turner & Baker, 2019, p. 14) even describes the discipline as a new science in which "nobody knows quite how to define it, or even where its boundaries lie".

Turner & Baker (2019) propose an elegant distinction in three 'streams' however, in which they first make a distinction in system-theoretical approaches and complexity theories (see fig. 1). The *system-theoretical approaches*, that comprise for instance system theory and general system theory (GST) could be characterized as a reductionist approach to complex systems. Or better: to complicated systems, as these approaches suppose that, although these systems may consist of many intricate and interrelating parts, they can still be determined and predicted. This contrasts with the systems on which (in Turner & Baker's distinction) *complexity theory* is focused, in *chaos theory* and the study of *complex adaptive systems*.

Chaos theory relates to the behaviour of systems that is apparently random, although driven by deterministic rules, with a high sensitivity to initial conditions (often called the 'butterfly effect) (Thietart and Forgues, 1995; Resnicow and Page, 2008; Madrid, 2019). *Complex adaptive systems* consist of elements (mostly called 'agents') that learn to adapt in response to interactions with other agents. And while these agents adapt to each other, new agents with new strategies usually emerge (Holland, 2014). The processes along which this happens are irreversible, in contrast to the processes in the systems on which the system-theoretical approaches are focused: these are all reversible. Another difference is that systems that are the focus of the system-theoretical approaches are mostly *closed*

systems, while the systems in complexity theory are '*open*': with permeable boundaries that allow for input from their surrounding environment.
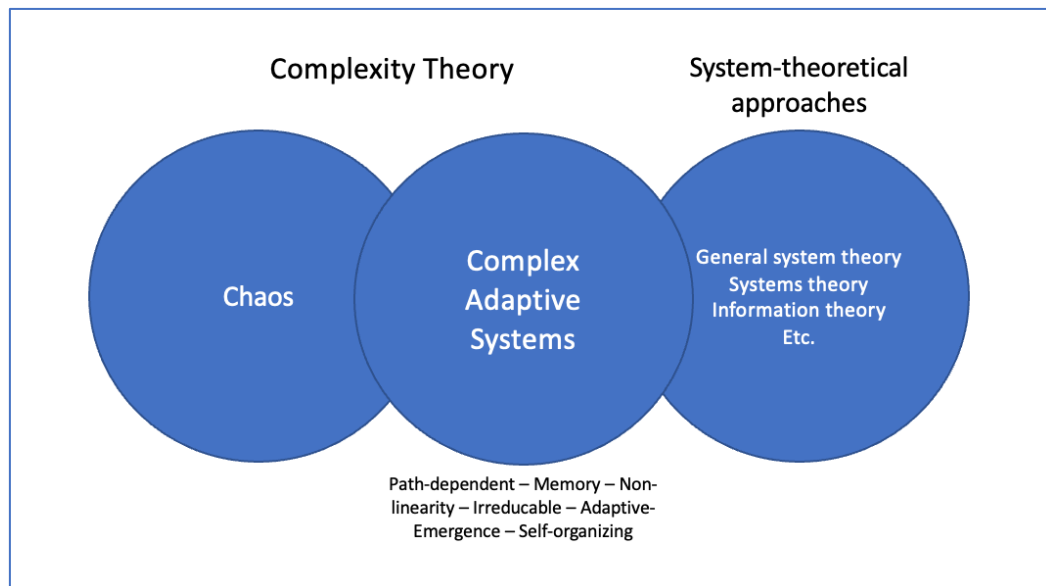
Figure 1 Complexity theory and system-theoretical approaches (after Turner & Baker, 2019)

From the paradigm of complexity, a society, neighbourhood, or community in which social problems such as fear of crime form can be seen as a *complex adaptive system* (CAS) (Comfort, 2002; Campbell-hunt, 2007; Comunian, 2011). I will therefore explore the concept of CAS further.

Complex Adaptive Systems

Turner & Baker (2019) describe a system as a whole, consisting of several parts or members. It is the difference between a system and systems: "whereas the former represents the whole (the system), the latter makes up the whole (components, systems, and subsystems)" (ibid. p3). There can be many aspects that make a system complex, it is the relationships and interaction between the constituting elements – leading to a combinatorial explosion - that give a system its complex character.

A complex system is a complex *adaptive* system when the interacting elements that the system consists of learn and adapt, in their individual and/or aggregate behaviour. This brings a complex adaptive system the capacity for self-organization, resulting in new ordered patterns or 'emergent properties', thus making the system adaptive to changing circumstances or events (Pieters, 2010; Holland, 2014, 2019; Stauffer, 2018). Communities, cities, industries, governments can all be seen as collective adaptive systems, just like our climate, rainforests, ant colonies, or the internet and cyberspace.

Overseeing the literature, a first impression is that the main characteristics or features of complex adaptive systems are described by different authors in a great variety of terms, with multiple accents or selections. Looking closer, it turns out that the words and sequences may differ, but that the core-elements show a great resemblance, with recurring central themes such as non-linearity, emergence, self-organization, self-referentiality and self-similarity. One of the pioneers of complexity theory, Cilliers (1998) describes the main characteristics of complex (adaptive) systems in 8 points: (1) a high number of elements; (2) interactions between these elements (3) those interactions are non-linear; (4) direct and indirect feedback between the elements; (5) emergence of new behaviour at aggregate levels, which is not a sum of individual level behaviours; (6) unclear boundaries; (7) a constant flow of energy, and (8) a memory where the past influences present behaviour. Another pioneer, Holland (2006) mentions similar characteristics, and adds on the *adaptive* character of a CAS:

> The agents in a CAS change over time. These changes are usually adaptations that improve performance, rather than random variations. Adaptation requires the solution of two problems: the credit assignment problem and the rule discovery problem. The credit assignment problem arises because overt information about performance (payoff, reward, reinforcement, or the like) is often irregular and partial. [……] The rule discovery problem arises when it becomes obvious that some of the agent's rules are ineffective or detrimental. Replacing ineffective rules with randomly generated new rules will not do. That would be much like inserting instructions at random in a computer program. The object is to produce new rules that are plausible in terms of the agent's experience." (Holland, 2006, pp. 1–2)*.*

Changes in a CAS are path-dependent, note Turner & Baker (2019) in their review of the literature, making a CAS sensitive to its initial conditions. This means that the same force might affect seemingly similar systems differently, based on their histories and that, within the same system, small changes can lead to big effects, while big changes may result in minimal effects, thus making these effects difficult to predict. Closely related to the changes in an CAS is the concept of *emergence,* which refers to:

> "…a system's interactions that lead to a change that could result in an organization being different from other organizations. This emergence also makes CAS irreducible; due to its emergent properties, higher-order states cannot be reduced to their original lower-level states. Thus, a phase transition typically occurs, changing the initial lower-level states. Having the ability to be adaptive, operating between chaos and order, is one of the unique characteristics of CAS. By operating between chaos and order, CAS avoid the status quo while at the same time avoiding complete chaos. This balance is self-organizing and allows CAS to learn and evolve into new emergent states" (Turner & Baker, 2019, pp. 8–9).

Turner & Baker (2019) end by summing up the basic tenets of complex adaptive systems in 8 points: (1) path dependent, (2) systems have a history, (3) non-linearity, (4) emergence, (5) irreducible, (6) adaptive, (7) operates between order and chaos and (8) self-organizing. As noted above, the characterics of CAS as defined by the different authors show a great deal of overlap. Some describe these just in terms of *characteristics*, others make the distinction in *intrinsic qualities* and *mechanisms*. But there is a third interesting phenomenon that can be observed in CAS: that of *patterns*, which I will discuss next.

Complexity theory as complementary paradigm

"If the hard sciences, the social sciences and the humanities are currently looking into 'complexity', then it stands to reason that at least some things must be fairly similar", Pieters (2010, p. 91) observes. Here he touches on the key assumption – and one might say, added value - of this developing new *transdiscipline*: that complex systems have the same characteristics and behave in the same way, influenced by the same mechanisms and rules, independent of the domain concerned. That does not mean that the disciplines that study specific domains – and the reductionist paradigm that has been dominant in those domains of study - have suddenly become obsolete or useless: they still have great value in studying and understanding specific elements and behaviours within the system, such as aspects of the behaviour of specific elements or agents. The paradigm of complexity science is therefore a *complementary* paradigm, needed in addition to the traditional reductionist one. Like in the case of the *Magdeburg hemispheres,* it is the combination of both paradigms that can bring understanding of complex issues in their full width and depth.

The assumption of complexity science is that the flows, behaviour, adaptation, and self-organization of complex systems show similar patterns, which can shift the focus to processes that may have been overlooked before. This opens the door towards another way of learning: by analogy. Using phenomena "that are well-known in a certain (scientific) domain to be used as source of knowledge in another" (Pieters, 2010, p. 91). A cross-disciplinary approach is therefore called for in the study of CAS. This does not blindly assume that similar patterns in different systems can be explained automatically by the same determinants or mechanisms, but to profit from the body-of-knowledge in another discipline to come to a greater understanding of a process or pattern in one' own domain. The method of pattern-oriented modelling (POM), for instance, is based on this line of reasoning (Pieters, 2010; Grimm and Railsback, 2012). Examples can be found in the literature of issues on different domains where such an approach turned out helpful, from social policy to economy (Campbell-Hunt, 2007; Kirman, 2010), from disaster management to public health policy (Resnicow and Page, 2008; Helbing et al., 2015), and from counterterrorism to politics (Bartolucci & Gallo, 2015; Nelson, 2019; Sandler, 2014).

1.4 Research design and methodology

1.4.1 An explorative process with a cascade of sub studies

Earlier in this chapter I described this thesis as *exploratory.* A study that, as usual, starts out with hypotheses and the formulation of theory. In this *exploratory* study these traditional steps are not followed by a single core piece of empirical research that is most common in *confirmative* research, but by a cascade of smaller and larger studies, of different character and methodology, with each separate study building on the previous one(s).

The heart of the research upon which this thesis is based comprises an amalgam of 53 sub studies. The amount of sub studies this thesis is built upon may seem somewhat unusual for one person to achieve in the limited timeframe of a PhD thesis. A combination of factors made this possible, however. The first is that I conducted this PhD study on a part time basis[4], while at the same time continuing my professional activity as researcher on perceptions of security. This meant that my daily work gave me ample opportunity to do research that was relevant for my thesis as well. The second is that although this thesis as a whole is my work and my work alone, almost all sub studies were performed in cooperation with others. The third is that in the years of this study – from fall 2014 to spring 2021 - the (inter)national security landscape changed rapidly and drastically, providing ample opportunities for studies into new developments.

The number of sub studies makes it is necessary to account for my research design and methodology in a somewhat different way than is usual in a PhD thesis. To describe the design and methodology of each of the studies in this chapter separately would result in a long text with a litany of technical details in which I would probably soon lose the reader. I am also afraid that such a detailed description of all the sub studies would obscure the 'grand line' of working and the coherence in the complex of sub studies as well. Therefore, I limit myself here to the description of the 'meta'-methodology, that is, the way the 'wall' of this exploratory meta-study was built, using the 'building blocks' of the different sub studies. In those building blocks, ten types can be distinguished, which I will briefly describe below. A further description, including methodological details, of each of the individual studies is presented in Appendix A.

1. Literature studies (8)

Extensive reviews of the available research literature on relevant topics were undertaken within this thesis. The findings of these literature studies were laid down in a working

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[4] And a part time registration at Cardiff University

paper, some I also presented in papers for (international) scientific conferences, or in other 'intermediate' publications, to provoke feedback and dialogue.

2. Empirical studies at the situational level (5)

I conducted four (mixed methods) studies on public perceptions of security and/or fear of crime at (hot) spots of specific crimes or nuisances or after a shocking incident in a neighbourhood. The studies were all performed at the request of local governments.

3. Empirical studies at neighbourhood level (2)

Two (mixed methods) study were undertaken of fear of crime and other perceptions of security in neighbourhoods where local government measured a high prevalence of public perceptions of insecurity, a prevalence that was not understood by local civil servants. The studies were conducted at the request of local governments.

4. Empirical studies at city level (3)

Three (mixed methods) studies were conducted on trends in fear of crime and their explanations in four Dutch cities: two of these belonged to the top-5 of biggest cities in The Netherlands (Rotterdam the second largest city, Eindhoven nr. 5), one concerned a medium-sized city (Schiedam). In 2019, prevalence of fear of crime[5] in Schiedam and Rotterdam was the highest of the 32 largest cities in the Netherlands (CBS, 2020a). I undertook the studies in these cities all at the request of local government.

5. Empirical studies: perceptions of security on specific crimes or threats (5)

Five studies were undertaken on specific perceptions of security, their effects and/or on factors that formed those perceptions. They cover topics such as public worries and anxieties on the influx of refugees, community fire safety or perceptions of 'slutshaming' of young women in higher education.

6. Empirical studies: (inter)national trends in fear of crime (3)

A cascade of three successive studies was conducted on longitudinal trends in fear of crime and related perceptions of security, as measured in national and international surveys in The Netherlands and 134 other countries, covering a period of more than 25 years (1989-2015). In the process a protype was developed of an International Fear of Crime Trend Index.

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[5] Here operationalized as the fear of crime in one's own neighbourhood.

7. *Empirical studies: effects of crime prevention communication (3)*

Three studies were performed on different types of crime prevention communication used at the national, local or neighbourhood level. The studies focused on public perceptions of these types of communication and on their effects on perceptions of security and security behaviour of the public.

8. *Empirical studies: effectiveness of local security policy (4)*

The study of trends in fear of crime and related perceptions of security in Rotterdam comprised an exploration of the influence of local security policy on those trends as well. Furthermore, I conducted four studies into the effectiveness and legality of local security policy for a regional audit commission. These studies gave me the opportunity to investigate the way four Dutch municipalities tried to mitigate (fear of) crime among their population and to what effect. One of these municipalities was a medium-sized Dutch city, in recent years confronted with a relatively high prevalence of crime and fear of crime (Gouda), the other three were smaller, more rural municipalities with a relatively low prevalence of (fear of) crime.

9. *Conceptual studies: on the changing security landscape (11)*

A basic premise of this thesis is that in the new millennium public perceptions of security have become progressively influenced by other perceived threats than before the millennium change. With that, the public perceptions and expectations of institutions that are relevant for security policy – such as the police – may change as well. Many of the studies described above already gave support for that premise, but I undertook additional studies to explore those changes. This was often done in the form of smaller studies, resulting in articles in peer reviewed journals, papers for academic conferences or publications for the professional field.

10. *'Flash studies' (12)*

Sometimes, incidents in society or for instance a question from the professional field suddenly provided an opportunity for a quick and small study that might shed more light on a question that already had arisen from earlier studies described above. When research capacity was available this led to so-called 'flash-studies': small, short explorations of a specific topic by means of for instance a compact analysis of social media traffic around a specific incident, a small survey, a systematic analysis of open sources, etcetera. I shared findings in a factsheet or working paper, papers at academic conferences, articles in peer-reviewed journals or in professional journals and the general media.

1.4.2   The process of 'cascading'

As described above, in this research I followed the lines as set out by cf. Reiter (2017) and Stebbins (1997) in using the different, successive sub studies and the dialogue with 'peers, professionals and the public' that surrounded those studies as *stepping stones in the path of exploration*. In which each step built on the steps before and in which I not only performed the intellectual 'dance' as plead for by Reiter (2017) - in a back and forth between theory and reality – but in which I used similar dances that I find just as important. In a dance, for instance, back and forth between the macro and micro level, and in a similar back and forth between the fears and anxieties on traditional crime and those on newer perceived threats.

Signal dish method and analytic induction as inspiration

In the explorative process, inspiration was found in the *signal dish method* (Farrell, Tseloni and Tilley, 2016), whereby triangulation happens by means of *data signatures*: patterns in the data one expects to see if a hypothesis is valid (or invalid). Sometimes that research method was followed literally (Eysink Smeets *et al.* , 2017), and where this was not possible, it was followed in the spirit. Sometimes an opportunity suddenly arose to see if a presumed mechanism indeed could be observed in practice, sometimes an unusual event took place in practice for which it was still completely open whether the empirical data would fit the growing theory. In other instances, a conceptual study was performed to systematically explore whether theory and empirics indeed 'fitted' (cf. Eysink Smeets, 2017e). The research process therefore has much in common with Znaniecki's (1934) analytic induction, searching for causal explanations on the basis of a limited number of cases, gradually expanding the scope. In all, the research consisted of a continuous going back and forth from theory to practice and from micro and to macro-level, refining and planning, thinking, and rethinking the theory.

With so many components and interactions it is impossible to describe every path that I followed in this process of cascading, so I will give a few illustrative examples below.

Researching longitudinal trends in fear of crime

To shed more light on longitudinal trends in fear of crime and related perceptions of security, data from victim surveys were collected from The Netherlands and five other North-European and Anglo-Saxon countries where longitudinal data on these perceptions over a longer period could easily be obtained. As it was problematic to compare the data from these different sources (due to differences in type of survey, used items, population, and research method), only the longitudinal trends in measured fear of crime and perceptions on crime were distinguished and analysed. This gave reason to assume that the

trends in the countries involved in recent years showed a similar, overall decreasing trend, a trend that I called the called the *fear drop*. To provoke feedback, I shared the findings of this preliminary findings at academic conferences and in an academic journal (Eysink Smeets, 2015b; Eysink Smeets and Vollaard, 2015; Vollaard and Eysink Smeets, 2015)

As this preliminary exercise seemed fruitful, I collected more extensive data, from more countries. Over a period of two years I gathered (further) relevant data from national, international, and supranational surveys, covering 135 countries and more than 25 years (1989-2017). This was used to develop a systematic way to index the trends in these data, resulting in a prototype of the *International Fear of Crime Trend* index. To provoke peer review again, these data were reported in a chapter in Lee & Mythen's (2017) International Handbook on Fear of Crime, followed by a paper at the annual conference of the European Society of Criminology 2017 in Cardiff (Eysink Smeets, 2017d).

The findings and insights derived from these activities in turn provided the input for other studies. As a starting point for instance of a study into *explanations* for the observed fear drop (Eysink Smeets, Foekens and Natasha Sprado, 2018) or as a dataset annex benchmark in other studies. Similarly, the study on fear of crime in Rotterdam (Eysink Smeets, 2016e) started for instance when the Rotterdam Urban Security Index showed a remarkable *increase* of measured fear of crime and perceptions of insecurity among the population of Rotterdam, completely contrary to the trend in (the rest of) the Netherlands. Based upon our earlier work, we soon found out that the observed increase was caused by a change of survey-method that was not 'corrected for' in the Rotterdam index system. Data from the International Fear of Crime Trend Index were, among others, also used in the mixed methods study of the effects of prevention communication to reduce burglary. Here we found that a temporary rise in measured fear of crime in The Netherlands could be explained by the extensive prevention publicity campaign on burglary (Eysink Smeets and Foekens, 2017a; Eysink Smeets, Jacobs, *et al.*, 2017). A finding that, in turn, fed into other part studies within the scope of this thesis, with the developed hypotheses on underlying mechanisms.

Researching fear of terrorism

Another example of the cascading process can be found in the series of sub studies on terrorism. The research for this this started in the fall of 2014, a period when Islamic State inspired terrorism was on the rise. First, a study was done on the (counter)terrorism literature, to see what advancements had been made on the study of 'fear of terrorism' and related perceptions of security. Although this yielded interesting publications and insights, it also led to the conclusion that the study of fear of terrorism was under researched, and theory-formation on this issue (and that of fear management) was almost absent (Bakker and De Graaf, 2014).

The available literature on public reactions to terrorist threats gave reason to assume however that the *threat* perceived by the public may indeed be different in the case of traditional crime versus that of terrorism. But that it was very plausible that the *mechanisms* along which their perceptions, emotions and behaviour were similar. Consequently, work that was done to shed more light on the formation of fear of crime and related perceptions of security, that was also used on the development of a theory on fear of terrorism.

As the urgency for more knowledge on fear of terrorism and the way it could be mitigated was growing in the Netherlands, an (applied) study on this issue was done in cooperation with a research group specializing in crises and crisis management. This resulted in a book for local administrators on public reactions to terrorism and on ways to increase public resilience after terrorist threats or attacks (Van Duin and Eysink Smeets, 2017). A more theoretical exercise led to a paper 'towards a theory on the social impact of terrorism' at the 2017 conference of the European Society of Criminology (Eysink Smeets, 2017e).

In the meantime, terrorist attacks by ISIS in neighbouring countries gave opportunities for several 'flash studies' into public reactions shortly after an attack. It led to analyses of social media for instance to gauge the emotional impact of the Charlie Hebdo attacks of 2015 in the `Netherlands' (Eysink Smeets, Loeffen and Baars, 2016) and into the willingness of the inhabitants of Brussels to cooperate with the Belgian police during the temporary lockdown of Brussels following the Paris attacks of November 2015 (Baars and Eysink Smeets, 2016).

In the beginning of 2016, I did a presentation on my ongoing work on public perceptions and fears on both terrorism and the influx of refugees for the Dutch Minister of Security and Justice, the chiefs of the Dutch police and public prosecutors and a selection of ten important Dutch mayors. Up to then it was considered 'common professional wisdom' that after a shocking incident - such as a terrorist attack – the presence in the streets of heavily armed police would not reassure the public but would further increase their fears and anxieties. My work on the formation of a theory on fear of terrorism had led me to believe otherwise: based on my work until then I came to the hypothesis that after an attack that really shocked the public, the presence of such police officers in places and times that were seen as highly vulnerable to an attack would be seen as reassuring in the first few days after an attack. Only a few months later, the Zaventem-attacks (of March 22, 2016) provided an opportunity to test this hypothesis, as suddenly heavily armed police were deployed at some of the most important railway stations in the Netherlands. I immediately organized an – improvised – survey among passengers at Amsterdam Central Station on the second day after the attack, which – notwithstanding the small sample size of (n=68) - confirmed the hypothesis. A large majority of respondents considered their presence reassuring, and only a small minority felt that this type of police presence increased their fear and anxiety (as they preferred not to think about what had happened, which was disturbed by the presence of the armed police).

Covid-19 as - unfortunate -final test

As said, the examples given above are just illustrative of the 'cascading process' that was deliberately sought in the explorative study of this thesis. Cascades of successive smaller and larger studies, in which insights and theoretical notions grew and were refined happened throughout this explorative study. And then, in the beginning of 2020, just when I wanted to finish this thesis, the COVID-19 pandemic hit. Bringing a pandemic of fears, worries and anxieties in its wake, with many of the effects in society that I had studied the preceding years. I decided that – at that moment - contributing to an adequate handling of the crisis was more important than finishing my thesis as planned. I therefore paused working on the thesis text and started to 'translate' the insights and theoretical notions I had developed in the preceding years into publications for the professional field on what challenges the fears, worries and anxieties the COVID-pandemic might bring (and how they might be mitigated).

1.5   Original contribution of the thesis

1.5.1   Academic contribution

Above, I mentioned how findings of many of the studies that I performed within the framework of this thesis were shared in publications or presentations 'along the way'. The reader might wonder of course: *if so many part studies performed in the course of this thesis have been published before, where is then the 'original work' that should form the key feature of a thesis like this?* The answer is simple. The various (applied) works formed not more than necessary steppingstones to come to a theoretical synthesis and explication, a new theoretical perspective. But the scientific contribution of this thesis is threefold. The thesis contributes to the strengthening of the theoretical foundations of fear of crime studies, an attempt to 'fill the hole of the polo mint', by integrating theoretical notions from complexity sciences and from psychology that had not been considered before. The second contribution is widening of the focus of fear of crime studies, to include the 'fears of crime of the 21st century' as well. The third contribution is to the empirical body of knowledge in fear of crime studies on aspects that were under-researched up to now, such as on the the longitidinal trends in fear of crime. Overall, with this study, I aim to contribute to a better *understanding* of the fears of crime, their character and their relevance in society.

A 'pleasant by-product' of my research is to contribute to a shift in fear of crime studies from the over-representation of studies based in the U.K. and U.S., to a more international palet of studies from different countries, cultures and political systems. This study brings in both empirical and theoretical findings from the Netherlands and sheds more light on both

the fears of crime, as well as on public security policies in the Netherlands; a country with many similarities to the U.K. and U.S., but is very different as well.

For the reasons I already described above, in the six years of the research process I was able to contribute to scientific debate in the form of papers for national and (mostly) international academic conferences, articles in peer reviewed journals, a chapter in a peer-reviewed book, and technical research reports. Based on my *work-in-progress* I also contributed to a variety of academic expert meetings. See Appendix B for an overview.

Contribution to policy and practice

The contribution to policy and practice of this thesis is similar to the academic contribution that I aimed for, but in an 'applied' version: to improve the political, professional understanding of the fears of crime; the way they form; their effects in society; and the need to prevent or mitigate detrimental effects. Here too, contributions were deliberately made *along the way*. This was in the form of professional handbooks, the technical research reports mentioned above, articles and interviews in professional media, essays, many presentations at international, national, regional, and local professional conferences, workshops and expert meetings, individual assistance to professionals and – in these times of new media - countless contributions to the professional debate on LinkedIn and Twitter. This 'output' was not without impact. Regularly, I noticed that notions or findings from these contributions were used as impact for policy and/or professional debate, was I invited to discuss implications, or did I notice that for instance that insights or words that I introduced earlier were later used in press releases or policy briefs of relevant organizations. A telling example from the last phase of my research is that *the mindmaps of societal effects of the fear and anxiety on the Covid-19-pandemic* that I made in one of the last sub-studies found their way via digital platforms quickly throughout the country and were used by regional crisis teams all over the Netherlands. Consequently, I was asked to provide input to the scenario development of various organizations (including the Dutch national Police), I supported Dutch mayors and was asked to provide feedback on the national communication strategy to the Dutch National Taskforce on Corona-Communication and to the Minister of Health.

One might expect that contributions to academia, policy and practice are contributions to society in general as well, albeit indirectly. With this thesis I aim to contribute more directly as well, however, by contributing to the public understanding of crime (Innes, 2017) and of the way our fear and anxieties form and can be mitigated. In addition, by contributing to the way our security policies work and how politicians and professionals communicate on these policies. In times where some politicians, opinion leaders or segments of society define science as 'just another opinion' it has become more and more important to speak out as academics on matters of our expertise in the public and political debate (Tjeenk Willink, 2018). I consider this as extra important now that I, as I described in this thesis, see

a growing difference between crime, security and security policies as sketched in the debates of politics and media and the crime, security and security policies as can be observed 'on the ground'. The more debates on crime and security are influenced by political, institutional or ideological interests, the more it is important that academics contribute to public debate, bringing in relevant theory, empirics and, above all, sound reasoning (Dehue in De Knecht, 2020). Explaining why and how certain events unfold or developments in society grow, what we know (and do not know) of the effect of certain interventions or policies, sometimes bringing in *knowledge* or views that others may find *uncomfortable,* but that reasonably need to be addressed to prevent greater harm later for instance. It is in this way that my research contributed to the public debate *along the way* as well. Through many interviews and articles in print and broadcast news media, by writing columns on issues of (perceived) security, sometimes contradicting skewed data or unfounded images presented in the media or by acting as an independent expert in the discussions on a sensitive problem between inhabitants of a neighbourhood and their local government. An overview of those activities, that in turn again increased my understanding of the myriad ways perceptions of security form in practice, is presented in Appendix C.

1.6   On style and structure of the thesis

As is clear, I chose to write this thesis in the active form, in the first person singular. In my opinion, it is a form that supports the explorative character of the work and especially the necessity that comes with that to be as transparent as possible - on per definition subjective – choices. Using the first-person singular also conforms with the guidelines of the American Psychological Association (6th Edition). These guidelines see the use of the active form the preferred way of writing, as it makes academic texts easier to read and more transparent, as it makes clear who is acting. I find it curious that although the APA-guidelines are the norm in criminological literature, the passive style is most widely used in research domain.

In the criminological literature another guideline of APA is followed to the letter however: that on the use of literature references in the text. In my opinion the APA-style of referencing – or the only slightly different Harvard-style, the preferred style for the social sciences at the University of Cardiff - may certainly improve transparency but makes a text far less accessible to the reader.[6] In this thesis, I followed Harvard, with only a few

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[6] In the style of the American Medical Association for instance, references are given in endnotes, thus 'interrupting' the text far less, while transparency on used sources is still guaranteed. The drawback here is that one has make some more effort (by going to another page) to check the reference, a drawback that could be overcome by using (foot)notes on the same page. A way of referencing like this may even contribute once more to the desired *societal impact* of criminology, as it will increase the accessibility of academic publications for a wider audience, without losing any of the necessary thoroughness and transparency.

exceptions where references threatened the readability of the text to such an extent, that these references are given in a footnote.

As described earlier in this chapter, I deviated from the traditional build-up of a thesis in two ways. The first is by accounting for the theoretical foundations of this thesis only in a summarized way in the first chapter, to prevent unnecessary repetitions for the reader when I describe these in later chapters as part of my line of reasoning. The second is the way I accounted for the methods I used, as described in the previous paragraph.

Structure of the thesis

One of the premises this study is based upon, is that the body of knowledge of fear of crime studies shows important gaps. I already presented some evidence that supported the hypotheses on these gaps, but in the next chapter I will subject this to more systematic scrutiny, in the form of an analysis of the state-of-the-art in fear of crime studies (*Chapter 2).*

Building on this state-of-the-art, *Chapter 3* (further) operationalizes the multifaceted concept of fear of crime, now including the newer 'fears' around 'newer' threats as well, in this study collectively addressed as 'perceptions of security'.

Then, I explore how these fears of crime form, starting with the body of knowledge on *determinants* of the fear(s) of crime, but adding theoretical insights on *processes and mechanisms.* This affords greater understanding of how these determinants, under which conditions, in which contexts, to what extent, lead to what manifestations of perceptions of security. In turn, this leads to a *process-oriented perspective* on perceptions of security *(Chapter 4).*

In *Chapter 5* I explore how the outcome of the process in which perceptions of security form is influenced by confounding mechanisms, complicating factors, and complexity.

Effects of the fear(s) of crime and related perceptions of security are explored in *Chapter 6*, followed by an exploration of the longitudinal trends in these perceptions of security in *Chapter 7.* Based on data from numerous surveys, I observe in the western world both a *fear drop* as well as a *fear change* in recent decades. After this mostly quantitative exercise, *Chapter 8* explores in a more discursive way, what this fear drop and fear change looked like in the Netherlands over recent decades.

Conclusions, limitations, some reflections and the implications for research, policy and practice are given in *Chapter 9.*

2   Departure point: the state of the art in fear of crime studies

2.1   Introduction

Is fear of crime studies overly focused on factors that influence fear of crime, but falling short in *verstehen,* as suggested in chapter 1? Is it more occupied with the question of what the concept of fear of crime comprises*,* than with the *relevance* of that concept in society? Is it also mainly focused on the fear of crime that we became accustomed to in the last decades of the last century (e.g., around traditional crime and disorder), lagging on 'newer' fears of cybercrime or terrorism? And, is the question 'can (and how) fear of crime be influenced?', an under researched topic?

In the previous chapter, I described the hypotheses underlying these questions and how they formed part of the motivations to commence this study. But I also wrote that these hypotheses more or less 'grew on me' over the years, based upon my use of the existing literature. That use could be biased, of course. Therefore, I submitted the hypotheses that form the starting point of my exploration to a more systematic test.

2.2   A Rapid Content Analysis

This test was conducted by means of a *Rapid Content Analysis* (RCA) of the fear of crime literature. A variation on the Rapid Evidence Assessment (see cf. Thomas, Newman, & Oliver 2013), aimed at the core contribution and core content of mainstream fear of crime studies, resulting in a *narrative* review. This review consisted of three different parts, intentionally chosen for their different time frame or 'horizon':

1. An analysis of highly cited publications on fear of crime ('looking back').
2. Analysis of the fear of crime contributions of the 2017 conference of the American Society of Criminology (ASC) ('what's going on now').
3. Analysis of the Routledge International Handbook on Fear of Crime ('looking ahead').

As observed before, *fear of crime* has always been a somewhat confusing umbrella term for the plethora of public reactions to crime related threats. But could it be that with the emergence of newer threats, the semantics had changed as well? So that the use of the old umbrella term is not adequate anymore to find the newest developments in fear of crime? For that reason, I lastly included a fourth exercise:

4. An analysis of publications on fear of cybercrime and fear of terrorism in adjacent fields of study ('looking sideways').

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2.2.1 Method

For the *analysis of highly cited publications on fear of crime* I performed a search in Web of Science (Core Collection), searching for publications that contained "fear of crime' in the abstract. This resulted in 1,125 publications[1], spanning 1970 to (spring) 2018, with a growth over time in the rate of publication (see figure 2).
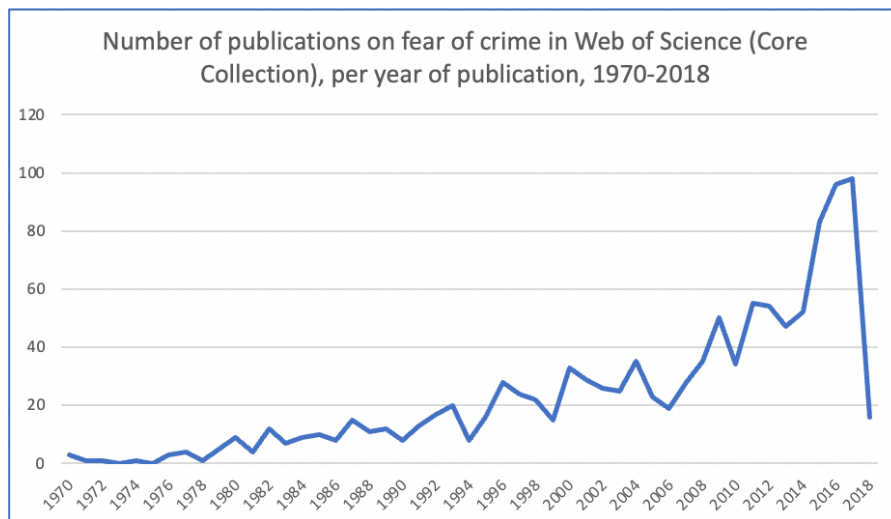
Figure 2 Number of 'fear of crime' publications per year in Web of Science Core collection, 1970-2018 (publications 2018 included until April 18th, 2018)

Using the citation count given by Web of Science, the 100 most cited publications were selected.[2] This resulted in a selection of publications with 411 citations for the highest scoring publication, to 61 citations for the lowest. The publications in this selection span 1976 to 2012. As the absolute number of citations of a publication mostly grows over time, this selection may favour 'older' publications. Therefore, a second selection was made of the 100 publications that were most cited *on average per year* since publication (expressed in a *Citation Index* or CI)[3]. This second sample had a substantial overlap with the first selection: only 29 publications with the highest Citation Index (CI) did not belong to the 100 most cited publications in an absolute sense. The combination of both selections therefore led to a total of 129 publications. A visual check confirmed that most well-known publications and authors were present in the sample. One relatively famous and often cited publication, the review of the fear of crime literature by Hale (1996), proved absent however. Given the importance of this publication, it was added to the selection that thus totalled 130 publications. These publications were analysed and coded[4] for year of first

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[1] Count of April 18th, 2018.

[2] A first selection was made by the author, which was checked by a second researcher, both for relevance, citation scores and inclusion in the top-100.

[3] Total amount of citations/(amount of months since publications/12)

[4] With one researcher doing the initial coding, a second researcher performing a check, with discussion until consensus between the researchers when differences in coding occurred

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publication, country or origin, research method, type of fear of crime and for their core contribution to the body of knowledge as derived from the author abstracts. For the latter, I used a categorization that reflected my initial hypotheses: in operationalization, measurement, (temporal) trends, contributing factors and/or mechanisms (at the individual, situational or macro level), effects and interventions.

The selection of publications described above provided a way of looking back at the focus in research and at the development of the body of knowledge over the last decades. I could not rule out however, that recent developments had led to shifts in focus, paradigm, research method or accents of contemporary research in comparison with the earlier work. Therefore, I performed a similar analysis of the contributions to one of the major international criminological conferences of 2017: the annual conference of the American Society of Criminology in Philidelphia. The programme of the conference as available on the internet[5] was searched for panels, papers and posters with "fear of crime" in title or abstract. This search yielded 62 relevant contributions, which were analysed and coded in the same way described above.

At the time of my analysis, Lee & Mythen (2018) published their International Handbook on Fear of Crime. The editors compiled it not to provide "the final word on fear of crime research and scholarship…. [but] as a provocative invitation to explore its boundaries and limitations further" (Lee & Mythen, 2018, p3). One could therefore expect that the (31) chapters written by (43) authors, often well-known for their earlier work in fear of crime research, would provide a good overview of the latest developments in fear of crime research and of promising new directions in particular. The chapters from the handbook were therefore analysed and coded in a similar way as the publications above.

I performed a fourth exercise to explore the body of knowledge on fears on 'newer' threats *outside* of fear of crime research . This comprised an additional search of the Web of Science Core Collection, now searching for publications on "fear of terrorism" and "fear of cybercrime". This resulted in 74 relevant publications on fear of terrorism and 10 for fear of cybercrime. These were again analysed and coded as described above.

2.3   Findings

2.3.1   'Looking back': the selection of highly cited publications

The selection of highly cited publications was analysed on type of fear of crime addressed, core contribution and character (research paradigm, research method), but also on year of publication and discipline of the journal of publication.

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[5] https://convention2.allacademic.com/one/asc/asc17/. Last accessed: July 25th, 2021

As previously mentioned, the publications in this selection spanned 1976 to 2016, but were not evenly spread over the years. From 1976 onwards, the number of publications in the selection slowly increases (more or less similar to the growth of total amount of fear of crime publications, shown in figure 2). From 1995 onwards, the volume of highly cited publications suddenly increases, plateauing at a higher level for more than a decade[6]. After which a decrease sets in again, now contrary to the trend in the total amount of publications (see figure 3).
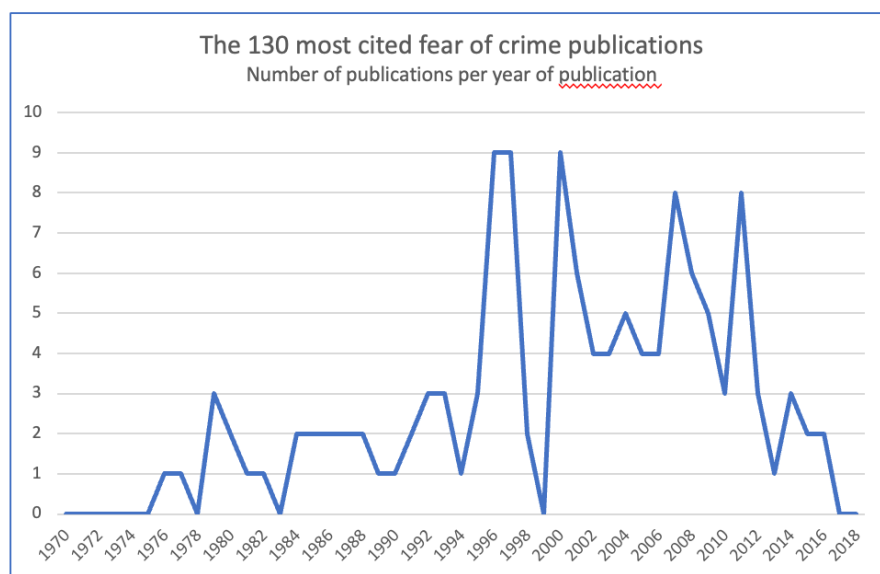
Figure 3 The 130 (absolute and relative) most cited fear of crime publications, in number of publications per year of publication

In criminological discourse on fear of crime, disciplines that seem to be dominantly present in fear of crime research are criminology itself and/or sociology. In recent years, various authors have suggested making better use of the insights of other disciplines, especially from psychology.[7] Would a development in that direction be visible when looking at the disciplines of the most cited publications?

Using a simplified version of the categorization used by Web of Science, the publications were divided into six disciplines. In line with criminological discourse, criminology/penology (55 publications) and sociology (26) turned out the be the most common disciplines (with 62,3% of the publications, n=130). These were followed by environmental & urban studies (18), psychology (14), health studies (12) and 'miscellaneous' (cf. gender studies, public administration). The contributions of these disciplines to the total amount of publications in the selection differs with time however. As figure 4 makes clear, the amount of

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[6] With the interesting exception of 1999, which year yielded no 'most cited publication' at all.

[7] (see cf. Eysink Smeets, Moors, Van 't Hof, & Van Den Reek Vermeulen, 2010; Gray, Jackson, & Farrall, 2009; Jackson & Gouseti, 2015; Jackson, Gouseti, Trope, & Liberman, 2010).

criminological publications in the selection has grown over the years. Contributions from health studies for instance are almost confined to the period 2000-2014 however, with most of these publications stemming from the period between 2005 and 2009.
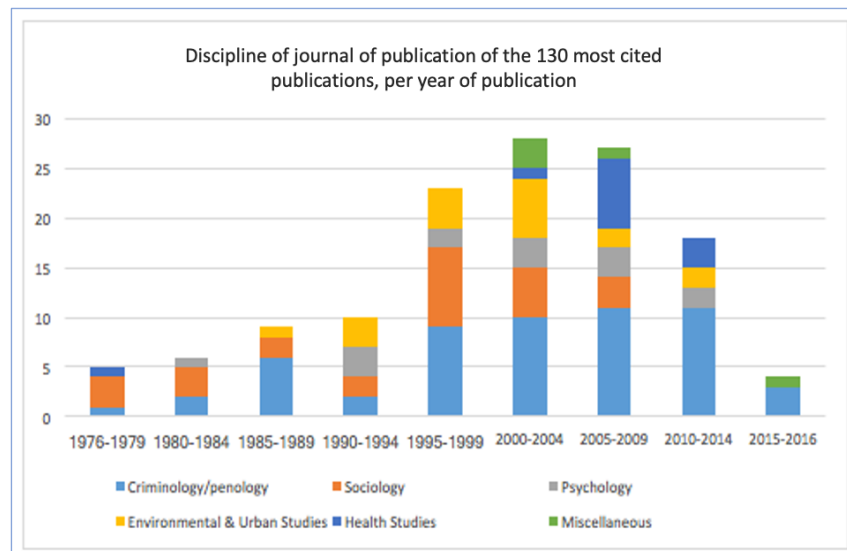
Figure 4 Academic discipline of journal of publication over the period 1976-2016, in blocks of five years

While the total amount of fear of crime studies in Web of Sciences' Core Collection steadily has grown over time, the highly cited studies peak around the millennium, after which the amount per year slowly decreases[8]. Looking at the development of contributions from other disciplines – which peak in a broad period around the millennium as well – it seems that especially the non-criminological disciplines have produced fewer publications with impact from approximately 2005 onwards. This *may* point to a loss of interest or relevance there, leading to a less multi- or interdisciplinary approach to fear of crime, while criminological authors made a plea for the opposite.

Content, character and core contribution

The majority of the publications are from researchers and/or research institutions from the Global North, especially Northern Anglo-Saxon countries (US., U.K.). The majority of these publications are formed by empirical work of a positivist quantitative nature. What Carrington, Hogg, & Sozzo (2016) called the 'the paradigm of northern criminology'[9]. Qualitative work, 'mixed methods' designs and publications that use a systemic, holistic paradigm are scarcer.

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[8] This could be a product of a citation effect (in which both the absolute number of citations as the average amount of citations need time to 'grow'), but that seems less plausible as the average amount of citations for criminological publications does not decline

[9] See on this topic Richards & Lee (2018) as well.

Almost all publications in the selection focus on the 'traditional' fears of crime and/or disorder, measured at the individual level, albeit often studied at the level of neighbourhoods. Only one publication in the selection concerns a study of cyber related fear (Reisig, Pratt and Holtfreter, 2009).

Most publications in the selection are focused on *determinants* (at the micro, meso or macro level) of fear of crime. Publications on *mechanisms or processes* through which these determinants have their influence are rare. Empirical work on *effects* of fear of crime is less prevalent as well. Publications that do focus on this subject are mostly from 'other' disciplines than criminology and sociology. From leisure studies for instance, exploring the effect on tourism (Mawby, Brunt and Hambly, 2000) or from health studies, addressing the effect of fear of crime on health, mental health or wellbeing (Whitley and Prince, 2005; Guite, Clark and Ackrill, 2006; Harrison, Gemmell and Heller, 2007; Kruger, Reischl and Gee, 2007; Stafford et al., 2007; Roman et al., 2009).

The publications in the selection often give suggestions for policy and practice directly derived from the research findings. Empirical studies on actual interventions - or meta-reviews of such studies - are rare. The few examples are mostly from recent years and address either forms of policing (Weisburd and Eck, 2004; Weisburd et al., 2011; Gill et al., 2014) or interventions in the physical environment (Painter, 1996; Wilson-Doenges, 2000; Tillyer, Fisher and Wilcox, 2011; Haans and de Kort, 2012).

The influence of 'time' seems an underresearched issue in more than one respect. While surveys and survey data are widely used, description of *longitudinal* trends is almost absent.

2.3.2 'What is going on now': the contributions to the ASC conference 2017

Unsurprisingly, most of the fear of crime contributions at the 2017 conference of the American Society of Criminology were by U.S. authors[10]. As with the most cited publications, the majority of the (62) contributions are again quantitative and positivist, focusing on 'traditional' fear of crime. Only two contributions were found on perceptions, anxieties or fears around 'newer' threats, like cyber crime (Toledo, Llinares, Campello, 2017) or terrorism (Freis-Beattie, 2017). This amount rose however, when broader search terms were used.

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[10] 44 contributions were from US authors. Seven contributions were made by (West, South and East) European authors as well, six from South Korea, and individual contributions could be counted from (other) countries from North, Central and South America, Africa and Asia.

The studies in this selection tended to be somewhat more focused on fear of crime among specific minority groups than among the population in general. Examples of these groups are LGBTQ-communities, Arab or Hispanic Americans, jurors or 'newcomers in a skid row neighbourhood'.

The papers typically focused on determinants of fear of crime. Some more studies into *effects* of fear of crime were found however, than in the selection of most cited publications (cf. Archer, 2017; Han et al., 2017; Huynh, 2017; Karstedt and Nivette, 2017; McMahon-Howard, Scherer and McCafferty, 2017; Pruss, 2017; Reynolds, 2017; Waszkiewicz, Svenonius and Bjorklund, 2017). The same can be said about studies into the way fear of crime may be influenced (cf. Aum, 2017; Britto and Stoddart, 2017; Cameron and Abderhalden, 2017; Johnson, Maguire and Kuhns, 2017; Mastrofski, 2017; Wire and Weisburd, 2017. No studies on temporal trends in fear of crime were found.

2.3.3 'Looking ahead': the Routledge International Handbook on Fear of Crime

The analysis of Lee & Mythen's (2018) handbook results in a much more varied picture than found in the analyses described above. As intended by the editors, many contributions form a constructive critique to the state of the art in fear of crime studies, and give new directions for the future, often in line with the gaps and shortcomings that were adressed earlier. For example, there are calls to pay more attention to the influence of other threats as perceived in contemporary society (Brunton-Smith, 2018; Richards & Lee, 2018; Wardman, 2018), to let go of the mono-focus upon fear of crime at the individual level, and to address the manifestations of fear of crime at other aggregation levels as well, with several authors adressing the relation between fear of crime and moral panic (Godfrey, 2018; Poynting, 2018; Richards and Lee, 2018).

Various chapters in Part III of the handbook, on 'Methodologies and conceptual debates', critique the quantitive, positive, reductionist orientation of mainstream fear of crime studies (cf. Lee & Ellis, 2018; Walklate, 2018) and substantiate why and how another paradigm and/or more qualitative and 'mixed' methods could bring a major step forward in *understanding* fear of crime[11]. Hernández (2018, p. 384), following Hale (1996) and Jackson & Gouseti (2012), points to the need to address the atheoretical nature and the lack of theoretical ambition of fear of crime studies .

The issue of 'time' is adressed in more than one chapter and in more than one way. This varies from the different meaning of crime and insecurity for different generations (Simon,

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[11] While Lee cs. (2018) make a plea for less northern and more southern criminology, it is interesting to note that half of the chapters are written by UK authors.

2018) to the longitudinal trends in fear of crime over the last decades (Eysink Smeets & Foekens, 2018)[12].

Overall, the handbook chapters address many of the gaps or limitations that were described in the analysis of the most cited publications and the ASC-contributions above. Two subjects however, also remain largely unaddressed in this Handbook: the effects of fear of crime (at least at some aggregation levels); and whether and how fear of crime can be influenced.

2.3.4 'Looking sideways': a search for studies on fear of terrorism and fear of cybercrime

A search for 'fear of terrorism' in the Web of Science Core Collection resulted in 74 publications.[13] After a check for relevance and accessibility 66 publications remained, spanning 2002-2018. In this period, the number of publications shows two distinct 'peaks': a first around 2004; a second – and higher – peak from 2015 onwards. Judging by the trend in available publications in Web of Science, scientific interest in the subject is growing. According to Web of Sciences citation count, most of the publications are hardly cited however: the average CI is 0.95. The most cited publication has a CI of 10.9, a substantial portion of publications are not cited by others at all.

The countries of origin and disciplines of the publishing journal show a greater variety than the fear of crime publications described before. Not surprisingly perhaps, many of the countries of origin are countries that were confronted themselves with – sometimes chronic – terrorism, such as the U.S. (13, n= 66) and Israel, (8), the U.K. (4) Germany (4), Norway (3), France (1) and Belgium (1) or countries in other parts of the world such as Pakistan (2), Jordan (1) or the Philippines (1).

In the highly cited fear of crime publications that I mentioned before, criminological, and sociological journals formed the most common journal of publication. Where it concerns the fear of terrorism publications considered here, their contribution is much more moderate. Six publications appeared in criminological journals and five in sociological journals, together forming 16,7% of the total amount. Psychology and health-studies have a substantially greater contribution, each with 10 publications. Especially striking is the wide array of other disciplines: from International Relations, Political Science, Public Administration, to Media and Communication Studies, transport management, economy, history, or atomic science. Clearly fear of terrorism is of interest for a wide array of

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[12] In the chapter on (the protype of) The International Fear of Crime Trend Index, an instrument that was constructed in the course of this dissertation (see further chapter 7 of this thesis).

[13] The search phrase "fear of terrorism" (in topic) yielded 54 publications. Then a wider search phrase was used "fear of terro*". This yielded 74 publications (last search date 23-08-2018). This selection was used.

disciplines. As fear is a central element in the concept of terrorism, it is remarkable that only three publications stem from journals on counter-terrorism studies[14].

The publications were coded for character of the research and core contribution to the body of knowledge, as described in paragraph 2.2. That made visible that most studies on fear of terrorism are of a quantitative nature as well, but to a less pronounced extent than in fear of crime studies. The rest showed variation in character and methodology, varying from reviews, essayistic and theoretical contributions, to discourse analyses, or a sporadic cost benefit analysis.

Most publications focus on the effects or consequences of fear of terrorism in society. At the personal level for instance, such as in the form of health risks or constrained behaviour (Melamed *et al.*, 2004; Laufer *et al.*, 2009; Toker, Laurence and Fried, 2015). At a community level, where it concerns changes of social interaction and attitudes towards minorities, especially Muslims (Rabrenovic, Levin and Oliver, 2007; Pedersen *et al.*, 2012; Ziemke-Dickens, 2013). And at the level of society as a whole, in the form of shifts in politics (Dayag-Laylo, 2004), security policy (Jore and Nja, 2009; Kozolanka, 2015), legislation or functioning of the legal system (Fischer *et al.*, 2007; Tait, 2011), in implications for economy, tourism and transport (Franke, 2004; Naor, 2015; Havlíčková, Kalábová and Burda, 2017), or on architecture (Charney, 2005; Kupilik, 2005).

With the focus on effects described above, fear of terrorism is more often the independent than the dependent variable. Relevant mechanisms are rarely studied or described. One of the few counter-terrorism publications stresses the importance of developing a better *understanding* of fear of terrorism however, as an important precondition for effective fear management strategies (Bakker, 2012). The same publication points to the overlap in determinants of fear of crime and fear of terrorism, supposing that much can be learned from fear of crime research. The empirical research described in another publication is aimed at exactly that overlap, observing many similarities in determinants, but with distinct differences as well (Brück and Müller, 2010; Shechory-Bitton and Cohen-Louck, 2018, 2020).

The prevalence of fear of terrorism is addressed in a small number of studies (Al-Badayneh, Al-Khattar, & Al Hasan, 2011; Boscarino, Adams, Figley, Galea, & Foa, 2006; Bott & Koch-Arzberger, 2012; Misis et al., 2017; Muris et al., 2007). These studies operationalize and measure that prevalence in different ways, while a description of longitudinal trends is almost non-existent. On the issue of influencing fear of terrorism, only a few contributions feature empirical work on ways to mitigate fear of terrorism (cf. Power, Mcmanus, Lynch, & Bonworth, 2016). Some other publications address the issue of influencing fear of terrorism

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[14] Later in this study a further analysis of the literature will be described, based on a much larger number of publications, that also shows that fear of terrorism is seen as one of the under researched aspects of counter terrorism studies.

however by deriving (hypothetical) suggestions for policy interventions from the findings from their research (Beutell *et al.*, 2017; Malik, Shahzad and Kiyani, 2017; Misis, Bush and Hendrix, 2017). A completely *opposite* meaning of 'influencing fear of terrorism', in the form of exploiting this fear for other (political, electoral, institutional) purposes is a much described topic however (cf. Baysha, 2017; De Castella & McGarty, 2011; Kozolanka, 2015).

Overall, it can be concluded that the volume of publications on 'fear of terrorism' is still relatively small but increasing from 2015 onwards. The publications are more varied in country of origin, discipline and research method than was the case in the fear of crime literature described before. The need to come to a better understanding of how fear of terrorism forms is noted, just as the possibility to learn in this respect from fear of crime studies. As the attention to the consequences or effects of fear of terrorism seems to be better developed than in fear of crime studies, it struck me that this learning could be bi-directional, however. Just as in fear of crime studies, the body of knowledge about mitigation of fear of terrorism is still small. Observations on how fear is exploited are not, however, and seem just as common as in fear of crime studies.

2.3.4.1   Studies on fear of cyber crime

The search for publications on *fear of cybercrime* in Web of Science resulted in four returns, rising to 12 publications when some variations of this search phrase[15] were used. After a first inspection, ten of these were considered relevant, with two describing the same study.[16] The relative novelty of cybercrime as a perceived security threat is illustrated by the short time span that the publications cover: 2011-2018. The average *Citation Index* was 1.3, with a CI of 2.7 for the highest scoring publication (Roberts, Indermaur & Spiranovic, 2012)[17].

Seven out of the ten publications describe quantitative research. The discipline of the journal is mostly criminology (7). Two publications stem from psychology-and-law, one from multimedia studies. Most (7) of the studies focus on determinants of the fear of cybercrime, two describe some effects as well. At least three publications suggest interventions. More than one publication points to the fact that research on fear of cybercrime is still very rare, with Henson, Reyns, & Fisher (2013, p. 475) explicitly noting researchers have been 'slow to estimate or explain individuals fear of crime online'.

Based on this initial scan, it may be concluded that (at the time of this scan, the beginning of 2018) research into fear of cybercrime is still in its early stages. Indeed, Web of Science

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[15] The search phrase "fear of crime" + cyber* resulted in 7 hits, "fear of cyber*" in 9. The three searches combined resulted in 12 publications, of which 10 were considered relevant.

[16] (Bernik & Mesko, 2011, 2012)

[17] This publication was also included in the selection of highest scoring fear of crime publications.

publications on *cybercrime* show a great increase from 2010 onwards (totalling over 1.000 publications in the summer of 2018), the publications on *fear of* cybercrime amount only to a fraction of that.

2.4   Overseeing the state of the art in fear of crime studies

This short analysis of the state of the art in fear of crime studies confirms the hypotheses that informed this study. When we take the report of the U.S. Presidents commission on law enforcement and administration of justice (1967) as the starting point of the research tradition, the first fifty or so years of research have certainly yielded an enormous amount of valuable knowledge. On operationalisation, on measurement, and on determinants of fear of crime. But research on *how* these determinants influence fear of crime and *what mechanisms* are at work is less developed. This has raised comments about *theoretical laziness* by some authors. In a less judgmental fashion, I prefer to say that the predominantly quantitative, positivistic, reductionistic research tradition of fear of crime studies is strong in *Erklären,* but less in *Verstehen*. That is, the tradition has succesfully contributed to the available *knowledge*, but less so to our *understanding*.

This situation certainly justifies the call for more theory formation, for which inspiration may be found in other disciplines. It is interesting to observe that, in the last decade, the most cited fear of crime publications have actually come from a narrower range of disciplines than before. That does not automatically mean that fear of crime studies have become less interdisciplinary: it may be that although research is published in the 'classic' criminological journals, their content has become more interdisciplinary. Nevertheless, this gives grounds for reflection.

The state-of-the-art in fear of crimes studies also gives reason to think that there is some substance to be found in the plea of various authors in Lee & Mythens handbook: that it is time for a change of paradigm and for the use of different research methods. Complementing the tradition with a more systemic paradigm and the use of other research methods - among which 'mixed methods' - could bring a major step forward.

The exploration of the state of the art not only confirms my hypotheses on research paradigm, methods and (lack of) *Verstehen* however. It also supports the idea that the research tradition is mostly focused on fear of crime (as operationalised and measured) at the individual level. But can the fear of crime at the individual level really be seen and studied in isolation from public reactions at the collective level, such as in the form of moral panics or a culture of insecurity?

The existing research tradition has paid attention to fear of crime as a tool for politics and policy, especially to the way fear can be exploited for political or institutional reasons. Less

attention has been given to other consequences, or to effects of fear of crime. The findings of my Rapid Content Analysis give grounds to suppose that other disciplines also have much to offer here, both in findings and in theory. Knowledge of the longitudinal prevalence of fear of crime and its effects could shed more light on the (societal) relevance of fear of crime as well, but research here is still scarce, just as on the *influence-ability* of fear of crime. As there is literature on *crime reduction* in abundance, it is remarkable that literature on *fear reduction* is almost absent. That is even more striking in counter-terrorism studies, as instilling fear is the core-aim of terrorists.

Finally, it seems that the research tradition is indeed lagging behind where it concerns the fears of crime of the 21st century. That cannot be explained by a proven 'irrelevance' of these new fears. On the contrary, the publications that do address these 'new fears' stress their importance and relevance. Lastly, this Rapid Content Analysis once again supports the finding that most of the available research on fear of crime is from the northern Anglo-Saxon countries (the U.S, and the U.K.), leaving it to be seen whether the findings there have the same validity in other contexts.

In all, the explorative analysis of the state-of-the art in fear of crimes studies support the aim and hypotheses underlying this thesis. The findings suggest that there certainly is something to be gained by expanding the boundaries and the theoretical basis of fear of crime studies, just as there is room for improvement where it concerns the body-of-knowledge of longitudinal trends and effects of the fear(s) of crime. The rest of this thesis is therefore devoted to a further exploration of these issues.

3   Fears of crime in the 21st century?

3.1   Introduction

In the preceding chapters, I have only marginally operationalized the concept of *fear of crime*. This was a deliberate choice, as one of the central questions of this thesis is whether the study of fear of crime could benefit from an adjustment of the concept itself. From a broader, wider, deeper operationalisation of the fear of crime, also because the new century has brought new threats that may have resulted in new types of perceptions of security.

In this chapter, I explore the definition, operationalization, and 'label' of the concept. Starting with those in use over recent decades, I will 'test' the boundaries of the concept and propose to redefine it. Using the paradigm of complexity sciences, I will also propose that we can increase our understanding of the fear of crime by seeing it as something more than *one slippery research construct* consisting of many subconstructs (Gray, Jackson, & Farrall, 2011b). Instead, I propose to view the fear of crime as (and within) a *family* of perceptions of security, comprising of different *genus* and *species.* Of these, some have been studied in the research tradition of fear of crime studies, some in adjacent fields of study and others still hardly at all.

In her extensive study on operationalization and measurement of fear of crime, Vanderveen (2006, p. 1) used *the parable of the six blind men and the elephant* as a metaphor for the complexity of and confusion about the (sub)constructs that are thought to form the fear of crime. I paraphrase it here in a condensed version:

> *Six blind men are gathered around an elephant. As they have always been blind and never able to see an elephant, they try to grasp what an elephant looks like. A first man touches a leg of the elephant and calls out: "an elephant is like a pillar!" A second man touches one of the ears. "No, an elephant is like a sheet of cardboard!" A third touches the elephant's tail. "No, you're wrong. an elephant is like a rope". A fourth man shakes his head in disbelief about so much stupidity, as, touching the elephant's trunk, he is sure that an elephant is like a firehose. And so on….*

In this chapter, it will quickly become clear why I consider Vanderveen's choice of parable so elegant and so useful, but with one important exception. Reviewing the first two decades of the 21st century, it appears that we are not dealing with *one* elephant anymore, but with a whole herd. Consequently, I will first look back once more to the history of fear of crime and of fear of crime research. I will explore the dimensions and subconstructs developed in this tradition. From there, I will explore 'new' fears of 'new' threats that have arisen in the last decades, fears that seem to have similar dimensions and could be

dissected into similar subconstructs as the traditional fear of crime. Then I will shift the focus to 'fears' at a higher aggregation level. As noted before, traditional fear of crime is mostly operationalized and measured at the individual level. Collective manifestations of 'fear', such as moral panics, are often treated as and studied as different concepts. Do we have something to gain however, by studying them as manifestations of the same 'root'? Lastly, I focus on temporal aspects, proposing 'time' deserves a more pronounced place in the conceptualization and operationalization of 'fears' of crime and related perceptions of security, as character, valence and intensity of these fears seem to change over time. I come to a taxonomy of 'perceptions of security' at the end of the chapter, followed by a summary and conclusion.

3.2   Fear of crime: a first exploration

3.2.1   The phenomenon versus the concept

From a superficial glance at the literature on fear of crime, one might get the impression that the public's fear of crime is a relatively new phenomenon: a product of modern urban societies, dating back no further than the 1960s. It is important however to make a distinction between the *phenomenon* and the *concept.*

Fear of crime as a scientific and political *concept* can indeed be traced back to the last century, when as Lee (2007) phrases it, the concept of fear of crime was 'invented' in the U.S. Using a contemporary expression, one might say that the concept soon went viral. It reached the U.K. only a little later (Hough, 2018), quickly followed by other countries, including the Netherlands (Vanderveen, 2006; Spithoven, 2017).

I agree with Godfrey (2018, p. 17) however, that it would be absurd "to suggest that fear of crime did not exist until 'fear of crime' theories emerged in the 1960s […] ". Because long before that time, "crimes were being committed and citizens had opinions and feelings about their prevalence and significance" (Critcher, 2018a, p. 20). Treating concept and phenomenon as one would be the same mistake as saying that *moral panics* did not exist before Cohen's (1972, 2002) work on Mods and Rockers. See for instance Critcher's (2018) exposé on the garrotting panics in 1860s Victorian London, or Godfrey's (2018) description of the Jack the Ripper-panic some thirty years later. From a theoretical, philosophical point of view, the *phenomenon* of fear of crime that I describe in this chapter must have existed since crime exists *by definition*.

3.2.2   The concept explored

The fear of crime seems such a clear concept. The layman would probably define it as the *emotion* evoked by (the risk of) becoming a victim of *crime.* In my experience, many Dutch

security professionals (from police, municipality or department of Security and Justice) do indeed explain it in this way. In criminological debates, the concept of *fear of crime* has a broader meaning, however. Here, fear of crime is used as an umbrella term for a multitude of public reactions to crime and disorder, with a variety of manifestations and different constructs. The term covers a wide array of 'thoughts, opinions, judgements, emotions, sentiments, attitudes' (Pleysier, 2008b) and behaviours (Dubow, McCabe and Kaplan, 1979; Ferraro, 1995; Gabriel and Greve, 2003). These can manifest themselves in different ways. In the form of concerns, worries and anxieties for instance (Brunton-Smith, 2018; Gray et al., 2011a; Hassinger, 1985). In the form of alertness Brands and Schwanen, 2014), fear (Farrall et al., 2009), or anger (Ditton *et al.*, 1999; Phillips, 2004). Or, in the form of a perception of risk or behaviour to avoid that risk (Barrett, Jennings, & Lynch, 2012; Mesch, 2000). Making it even more complex, those different manifestations can indeed stem from crime, but from disorder as well and from signs that *may* indicate a risk of crime or disorder (Jackson, Gray and Brunton-Smith, 2012), just as from underlying *ontological* forms of insecurity (Hirtenlehner and Farrall, 2013; Valente and Valera Pertegas, 2018). And they can reflect concerns, worries, or anxieties about one's own security or the security of significant others, but also that of the community or society as a whole.

As such, the ostensibly mono-dimensional term fear of crime encompasses – in criminology and fear of crime research - a complex multitude of constructs, sub constructs and manifestations. It thus forms a multifaceted and complex concept, at the same time loosely and ill-defined, making it a slippery subject for scientific research (Farrall, Jackson, & Gray, 2009; Gray, Jackson, & Farrall, 2009, 2011; Hale, 1996; Henson & Reyns, 2015; Spithoven, 2017; Vanderveen, 2006). This can easily lead to confusion or miscommunication: between fear of crime researchers and other researchers, policymakers, or practitioners, but also among fear of crime researchers themselves: are they addressing the same thing when talking about fear of crime, for instance when comparing findings from different studies? To summarize this complexity in one sentence: *the concept of fear of crime is not (just) about fear, not (just) about crime and can mean a different thing every time that it is used.*

3.2.3   An unhelpful umbrella?

Considering the above, it is no surprise that Lee & Mythen (2018) called the term fear of crime 'unhelpful'. Other authors came to a similar conclusion and have used (or suggested the use of) of other umbrella terms. Such as public *perceptions of insecurity and fear of crime* (Barker & Crawford, 2006), thus making a distinction between a cognitive and affective dimension (to which I will come back later in this chapter). Innes (2017) coined the term *public reactions to crime*, a term that I consider much broader and more neutral where it concerns 'the reaction-side' but is still narrowly focused on 'crime' where it concerns the focus or 'cause'. In Dutch the term 'subjectieve veiligheid' (*subjective security)* is used (cf. Siesling, Jacobs, & Moors, 2011), in recent years often replaced by the term veiligheidsbelevin*g (experienced security*) (Van Den Brink, 2008; Van Den Herrewegen,

2011; Eysink Smeets, 2016e). The uneasiness with the subject is in Dutch often reflected in the use of the pleonasm 'subjectieve veiligheidsbeleving' *(subjective experienced security).* In recent years, the much broader term *human security* - a term stemming from international relations – is becoming more popular as well (Masys, 2016).

Up to now, none of those terms have been able to replace the (thus confusin*g* but traditionally used) umbrella term of fear of crime in the international literature. In this respect I consider it 'telling' that Lee & Mythen (2018b), although considering the term unhelpful, still chose to use the term for their International Handbook on Fear of Crime. Ostensibly, it is much easier to observe that the term in use is not correct, confusing and in need of an alternative than to come up with an alternative that is widely accepted within the research community.

The multidimensional character of the concept may look scary or intimidating to some. However, I agree with Farrall, Jackson, & Gray (2009, p. 80) that "It is certainly possible to explore the variety [.....] of the fear of crime". Various authors described dimensions of the concept of fear of crime that help in making the concept easier to oversee, understand and handle. For the same reason, some of these authors developed classifications or taxonomies, in an attempt to bring order to "the terminological chaos" (Vanderveen, 2006, p. 39). The rest of this chapter progresses along these lines, first exploring previous dimensions and classifications, then adding perspectives, thus refining them, and widening the scope.

3.3   A first distinction: cognitive, affective, and conative dimensions

From the earliest studies onwards, the literature describes cognitive, affective, and conative aspects of – or in relation to - fear of crime. One of the first reviews of the literature, for instance, makes a distinction between "values, judgments, emotions, individual behavioural responses"[1] and "collective behavioural responses"[2] (Dubow et al., 1979, p. iv). The authors of this review use the umbrella term *perceptions of crime* to address the combination of the values, judgements and emotions concerning crime, and use the term *fear* only where it concerns that specific emotion. They specifically mention that *fear* is not the only emotional response to crime, but that *anger* is such a response as well. It seems to me that that observation received far less attention in the subsequent years, until Ditton et al. (1999) put that emotion on the map again, some twenty years later.

The oft-cited studies of Garofalo (1981), Ferraro & Lagrange, (1987; 1988), Ferraro (1995) and Hale (1996) follow a more or less similar line of thinking, where they describe cognitive,

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[1] Avoidance, protective behaviour, insurance, communicative behaviour, and participatory behaviour

[2] Such as crime control, crime prevention, victim advocacy, and offender-oriented activities

affective and conative reactions to crime, but reserve the word *fear of crime* for that specific emotional response. All these 'fear of crime'-studies address however, with different accents, the broad set of related perceptions and behaviours.

At the beginning of this millennium, Gabriel & Greve (2003) defined *fear of crime* itself as a combination of cognitive, affective, and conative dimensions, arguing that:

> …fear of crime can be conceived of as a multifaceted concept. The phenomenologically salient aspect – the (conscious) experience of feeling fearful, is a conglomerate of these facets, reflecting mainly the affective facet. However, the affective facet must always be accompanied by a cognitive facet, i.e., the cognitive perception of the situation as threatening or dangerous {…}. It is logically impossible to be afraid but not to judge a situation as threatening. The third component of fear is an expressive facet: fearful behaviour (e.g., avoidance behaviour and self-protection). The conceptual link to the behavioural aspect is less clear however, than the link between cognitive and affective. (Gabriel and Greve, 2003, p. 603)

The shift that Gabriel & Greve make is subtle but far-reaching, as they see the cognitive and conative dimensions not as *accompanying* fear of crime, but as constituting parts of it. Their last remark on the conceptual link to the behavioural aspect warns for the use of the conative dimension as an indicator for the *measurement* of fear of crime (see also Vanderveen (2006)), but stresses at the same time, the importance of this dimension for the *understanding* of fear of crime. In my years of researching fear of crime I have learned to value the widening of the concept as pleaded for by Gabriel & Greve (2003) for three reasons. First is that the conative dimension often offer an 'entrance' to research and understanding the other dimensions of fear of crime in a specific situation. The second is that emotions (the main element of the affective dimension) carry in themselves an intention for action (Frijda, 2008), the conative dimension *is* that action. The third reason is that I came to see that both the greatest benefits and the greatest harm of fear of crime are hidden in that conative dimension. I will elaborate on this point more extensively in chapter 6. Based on that understanding, in this thesis I will see fear of crime as comprising all three dimensions: cognitive, affective, and conative.

3.4   A second distinction: levels of perceived 'distance'

Fear of crime is not only about what people perceive may happen to themselves, but also what may happen to others. That can be their 'significant others', but it can be others in their neighbourhood as well, other people elsewhere or in 'society as a whole'. Or more accurately, what people *perceive* to be other people elsewhere or in society as a whole, a notion introduced by Mutz (1992, 1998) in her perspective of the *impersonal other.* As I will substantiate further in chapter 5, this leads to different constructs of fear of crime, formed

by different sources and mechanisms, in which the aggregation level or (psychological) distance to the perceived threats and/or consequences of those threats is the discriminating factor.

One of the first distinctions made in this way was by Ferraro & Lagrange (1987) in their renowned classification of sub constructs of fear of crime. They distinguished between the fear of crime at the *personal level* (which included the perception of risk to self and fear of self-victimisation) and at the *general level* (in which they included the perceived risk to others and the concern or fear for victimisation of others). Hale (1996) used a similar line of thinking, distinguishing the individual, the situational and the societal level.

Spithoven (2017) goes even further, distinguishing a *general* level that he divides in two different constructs: a *neighbourhood* fear of crime and a *societal* fear of crime. Spithoven builds here on the work of Jackson & Gouseti cs, in which they apply construal level theory of psychological distance (CLT) on fear of crime (Gouseti & Jackson, 2016; Gouseti, 2018; Jackson & Gouseti, 2015a, 2015b; Jackson, Gouseti, Trope, & Liberman, 2010). A key premise in this work is that fear of crime is a different construct, depending on whether an event or threat is perceived as *proximal* or *distant* in time, place, social distance and reality. According to CLT, events experienced as distant tend to result in more abstract, generic perceptions *(high level construal*), while events experienced as proximal lead to more concrete, detailed, vivid representations (*low level construal*). This last form is thought to have more impact on affect than the more abstract representations (Gouseti, 2018; Jackson, 2015; Jackson et al., 2010; Spithoven, 2017a).

In earlier Dutch work and in search of an explanation of patterns observed in Dutch survey data and findings from qualitative studies, and based on a different, theoretical foundation, I came to a similar hypothesis: that events that are experienced as *close by* or *distant* lead to different constructs in fear of crime, fed by different sources as well (Eysink Smeets & Foekens, 2015; Eysink Smeets, Moors, & Baetens, 2011; Eysink Smeets, Moors, Van 't Hof, & Van Den Reek Vermeulen, 2010). These differences in constructs and their underlying mechanisms will be further explored below. The further distinction in two, three or more levels all have their own strengths and weaknesses: for practical purposes, in this chapter I will take the middle ground and use the distinction between three levels (personal, situational, general).

3.4.1 Combining the two: a first step towards classification

Ferraro & Lagrange (1987; 1988) were the first to set out the two dimensions described above against each other in a matrix, thus creating a handsome classification of relevant sub constructs of fear of crime. In their classification they set out judgements, values, and affect on the one hand, against the personal and general level on the other hand. This led to a six-celled matrix, where each cell constituted a different sub construct of fear of crime. In this paragraph I will take their example further, with some alterations.

Earlier, I described why it is important to include the conative aspects of fear of crime in the equation. I therefore include the cognitive, affective and conative dimensions in the classification. Looking at the levels of distance or proximity, the distinction I made above in personal, situational, and societal is useful because of its concreteness, the distinction between proximal and distant provides further understanding. The personal level coincides with *proximal,* the level of society with *distant*, the situational level depending on exactly that: the situation. Combined, these dimensions lead to a classification consisting of 9 cells, as graphically depicted in table 1.

Table 1 Classification of (sub) constructs within fear of crime, with examples of their manifestations. Each cell coded for the first three letters of both dimensions involved

	Cognitive Judgements - Values	Affective Feelings - Sentiments	Conative Behaviours
Societal	CogSoc • cf. perception of rising crime level in society	AffSoc • cf. fear or anger that country is 'heading the wrong way' concerning security	ConSoc • cf. political pressure • cf. voting • cf. change in media use
Situational	CogSit • cf. perceived crime risk at certain location or event • cf. perceived risk or consequences of victimisation	AffSit • cf. anticipated fear • cf. alertness	ConSit • cf. Scanning environment for signs of risk • cf. altering amount or timing of use of specific places
Personal	CogPer • cf. perceived crime risk for self • cf. perceived risk (or consequences) of victimisation	AffPer • cf. fear or concern for self or significant others	ConPer • cf. not letting children play outside • cf. fitting locks, bolts & alarms • cf. not mixing with people not trusted

3.5   Fear of what? Widening the scope.

3.5.1   Fear of crime?

I have always found the concept of 'fear of crime' somewhat peculiar, as it combines a concept from psychology ('fear') with a concept from law ('crime'). It raises the question what it is that evokes fear in an individual? Is that the perceived risk of being the subject of something *illegal,* or is it the perceived risk of falling victim to something that is considered *harmful,* or *morally wrong?* In fear of crime studies the understanding soon started to

unfold that fear of crime is not so much related to *crime* in the judicial meaning of the word, but to all kinds of behaviour that the public experiences as threatening, criminal and/or morally reprehensible, including all kinds of disorder (Skogan, 1986; Markowitz *et al.*, 2001; Ross, Mirowsky and Pribesh, 2001).That behaviour is the behaviour of *others*. In Dutch, we use the term *sociale veiligheid* (social safety) to distinguish these fears and perceptions from the fears and related perceptions that can result from e.g., accidents or natural disasters (*fysieke veiligheid* or 'physical safety'). The concept of 'others' as an essential element of fear of crime is not only relevant for the purpose of such a categorization, as it also evokes specific mechanisms in the formation of fear of crime.[3] I will come back to that issue in chapter 5.

3.5.2 Start of the research tradition: fear of 'traditional' crime

From the start of the research tradition, fear of crime studies mainly focused on the 'fears' of those crimes that, from the 1960s onwards, were on the rise in western countries, such as street crime, violent crime and property crime. This focus remained even after the *crime drop* (Blumstein, 2006) set in, the prevalence of these 'traditional' types of crime substantially decreased and other types of crime started to increase.

I find it an interesting phenomenon that the volume of publications on fear of crime in the Web of Science Core Collection - as we saw in the previous chapter mostly on 'traditional fear of crime' - keeps showing a steady increase over the years, when at the same time both traditional crime and – as I will show in chapter 7 – traditional fear of crime substantially decreased in the last decade or so. Of course, the trend in the number of publications can be influenced by completely different factors. By the trend in the number of academic journals for instance, the way academic libraries and databases are set up and managed, or by the growth of the number of researchers, research groups or research grants. What strikes me, however, is that the trend in the amount of highly cited publications per year roughly coincides with the trend(s) in both traditional crime as fear of crime: rising to the years around the millennium change, and then slowly decreasing again. Could it be that the trend in highly cited publications reflects an urgency felt in society to understand and mitigate that (fear of) crime, thus stimulating innovative research approaches? A stimulus that diminishes again when both the crimes and the fear of crime

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[3] The concept of 'the other' is not only an element that forms a necessary condition for fear of crime however, it influences the way these fears and related perceptions are formed, in more ways than one. In chapter 5 I will describe how (intentional) behaviour of others may evoke the 'nocebo-effect', by which an individual experience more pain, grief of harm of a stimulus than when that stimulus is not administered intentionally by another person (Atlas & Wager, 2012; Gray & Wegner, 2008, see further chapter 8). The concept of '*others'* plays a pivotal role in fear of crime as well because we seem to find it hard to predict what we can expect from people that are 'other' than ourselves (in economic class, age, lifestyle, ethnicity or colour of our skin). A perception of 'stranger danger' is therefore commonly observed in fear of crime studies (Scott, 2003; Dellert and Johnson, 2014; Foster *et al.*, 2015; Ceccato, 2018). Who is a 'stranger' - and who is not - is a matter of perspective of course, on which I will come back later.

in question decrease again. A question certainly worth exploring, but not within the boundaries of this study.

While street crime, property crime and violent crime formed the subject of the majority of fear of crime studies in the first decades, some *sub streams* developed that paid attention to specific fears of specific (other) crime as well. Women's fear of sexual crimes for instance, about which Stanko (1993, p117) observed that "the analysis and the construction of the concept 'fear of crime' fail to capture women's lived experiences of sexual and physical violence". Other authors remarked as well that these particular fears of these particular crimes maybe fitted in the broader concept of fear of crime but could only be really understood by adding other perspectives (cf. Custers & Van den Bulck, 2013; Gash & Harding, 2018; Stanko, 1993; 1995; Vera-Gray, 2016). In this way one could say that, although these fears did fit in the classification of fear of crime as described above, they need to be seen in a specific light to fully understand them. It is therefore reasonable, to consider the 'fear' of these specific crime groups as subconstructs within the broader operationalization of fear of crime.

3.5.3   New crimes, new fears

Street crime, violent crime and property crime may have been the major crime and security problems of the last decades of the last century, but since the turn of the century the face of crime in Western countries changed, especially so in the second decade of the new millennium. New forms of crime and (other) threats to public security arose, influencing public perceptions. New terrorism came up, with an initial wave in the first years of this century and a second wave from the mid-tens onwards. Cybercrime and a whole family of cyber (in)securities emerged, from cyber harassment to 'trolling', or even cyber warfare. An immigration crisis led, in various countries, to societal unease or outright civic unrest. Partly because some of the public perceived it from a perspective of *crimmigration* (Pickett, 2015; Eysink Smeets and Boot, 2016d, 2016c; Brouwer, van der Woude and van der Leun, 2017).

That minority-group's fear of crime can also take the form of fear of the police has been described before (Block, 1971; Wachholz and Miedema, 2000; Carr, Naolitano and Keating, 2007; Sarang *et al.*, 2010; Brunson *et al.*, 2015; Linnemann and Medley, 2018). In various countries, including The Netherlands, this issue came higher on the public agenda, partly due to incidents that received wide media attention and due to the growth of activist groups that were successful in getting the public's (and political) attention (cf. Black Lives Matter, in The Netherlands 'Stop Blackface' as well). In 2020, the killing of George Floyd and the reactions that his death triggered in society gave an extra boost to the already existing trends. Discrimination[4] climbed the agenda, and 'fear of discrimination' turned out to be more prevalent than often supposed. #Metoo brought a further awareness of the

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[4] A crime by (criminal) law in the Netherlands.

sexual harassment of women and sexual crimes against them. Informatisation and the growth of data-driven super-corporations (and of the intelligence industry) brought fear of (breach of) privacy, and partly combined with the painful experiences of the financial crisis, may have led to a growing 'fear' of corporate crime as well, a fear that up to then was thought to be almost negligible (Briggs, 2005; Eysink Smeets & Zoutendijk, 2018; Hagan, 2010).

In 2020, the COVID-19 pandemic hit the world, a pandemic accompanied by another pandemic: that of public fear and anxiety. At first sight, these fears and anxieties have nothing in common with the fears of crime described in this chapter. Looking more closely however, it resembles fear of crime more than one would expect. The threat in the pandemic comes again from *others,* while their threat is diminished or increased by their compliance to the legal guidelines, or to behaviour that is socially accepted. Seen like this, the threat of COVID-19 forms the middle ground to the *social security* and the *physical security* we define in the Netherlands. And, as I will describe later, these fears and anxieties form in the same way as the fears of crime and have similar effects.

3.5.4   Adding the type of threat to the classification: a Rubik Cube of fears?

As described in chapter 2, fears around these 'new' crimes have received far less attention in (or outside of) fear of crime studies than the traditional fears of crime. Reviewing the literature that *is* available though – and especially considering the explorative sub studies into these fears that I undertook during the present study (especially Eysink Smeets, 2017e; Eysink Smeets and Boot, 2017b; Eysink Smeets, Schram and Van Ingen, 2017; Van Duin and Eysink Smeets, 2017; Eysink Smeets and Zoutendijk, 2018b) - these fears seem to have much in common with the traditional fear of crime and with each other as well. Where there are enough *empirical* data available, the 'fears' of the different threats seem to show common patterns in dimensions, formation and manifestation (cf. Brück et al., 2010) And, as I will describe more deeply in the chapters hereafter, when available *theory* is applied to the empirical data, it seems to fit quite neatly onto the empirical findings. Complexity science focuses the attention on *shared patterns* in the formations of similar phenomena, there is certainly reason to presume such shared patterns here. I propose therefore that, to come to a better understanding and explanation of these new fears, the perspective of traditional fear of crime studies can offer a promising starting point. We can study these 'new' fears of crime from that perspective, without treating them as exactly one and the same. This is a similar situation and challenge to that I described above about women's fear of sexual crime. Godfrey noted on the relation between traditional fear of crime and the fear(s) in the new century that "it may be possible to identify common themes within general feelings of unease, the interconnectedness of anxieties makes the task of identifying or measuring the different fears problematic" (Godfrey, 2018, p. 17). In the present study, I do not seek valid and reliable measurement, but progress in

conceptualization and understanding. For this, a definition of common themes, mechanisms, and further similarities (and differences) must be deemed possible.

Above, I gave a first classification of the sub constructs within fear of crime, resulting in a nine-celled matrix. Many of the fears on new crimes or threats described in the last paragraph can be dissected in much the same way. With cognitive, affective, and conative dimensions and with each resulting in constructs at the personal, situational, and societal level. Thus, they are sometimes perceived as proximal, sometimes as distant. A further classification – and graphical depiction- might therefore be as presented in figure 5: with a nine-celled matrix representing the specific sub constructs of the fear for each specific (new) threat. By combining different matrices for each new cluster of crime threats, *a Rubik's Cube* of constructs and sub constructs emerges.
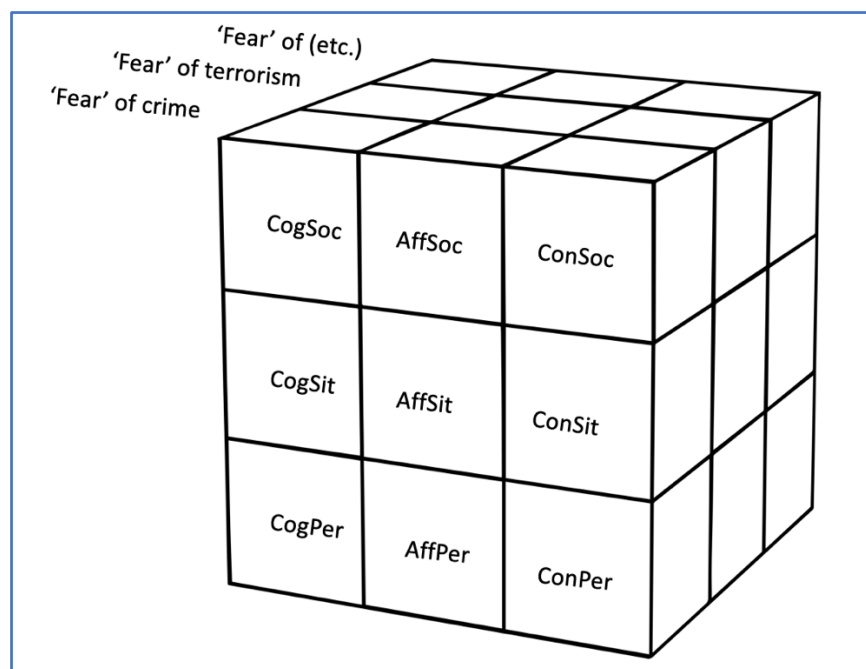
Figure 5 Towards an extended classification: a Rubik Cube of fears of crime?

This is not just an exercise for the sake of being able to make a (righteous) comparison to that difficult, but not impossible to understand or solve, puzzle. Taking this perspective raises new questions for research. For instance, one such question concerns the relation of each constituent cubicle with each of the others. Do they influence each other and, if so, how? What determinants or drivers are shared, which are specific? It might also stimulate us to learn by analogy, as complexity science proposes. Could it be for instance that mechanisms or patterns observed in one 'slice' or cell of the cube, opens our eyes to similar mechanisms or patterns that exist in other slices as well, but that we had failed to notice up to now?

A classification like this opens the door as well to the resolution of another often-observed problem: that of the comparability of studies on fears of crime. As observed earlier,

comparison of studies is often hindered by the fact that different studies often use different constructs as indicator for 'fear of crime' - used as either dependent or independent variables - sometimes even using only one item (see as well Eysink Smeets, Van Thiel, et al. (2018); Spithoven (2017)). The question can be raised whether the systematic use of a classification such as that proposed above, defining a used sub construct along the lines of three dimensions (type of threat, type of perceptions, and aggregation level) would not greatly facilitate inter-study comparison of findings.

3.6   Whose fear of crime?

The concept of *others* mentioned in the previous paragraph brings us to the question of who are the *non-others? Whose* fear of crime is it that we are talking about? In theory, that can be any individual or group of individuals, in any role or identity. As a member of the general population, the inhabitant of a neighbourhood, a member of a specific demographic subgroup, or for instance as a professional in a specific sector.

Often, it is the fear of crime of the 'general public' that is debated and/or researched. But is that public in the political, professional, or public debate on fear of crime always as 'general' as the term suggests? Harris (1968, cit. in Godfrey, 2018, p. 15) describes for instance how, in the early days of fear of crime studies "fear of crime could be summed up as fear of black people, fear of guns, fear of black people with guns". Davis (1980:192, cit. in Critcher, 2018a, p. 27) notes that *the public* and *public opinion* refer "primarily, but not exclusively, to the middle and upper classes". Earlier in this chapter I cited Stanko, from which we can deduce that in the earlier studies of fear of crime a female viewpoint was dearly missed, a situation that over the years – by contributions from gender studies among others – has improved substantially (Koskela and Pain, 2000; Fetchenhauer and Buunk, 2005; Loukaitou-Sideris and Fink, 2008; Grubb and Turner, 2012; Snedker, 2012; Drakulich, 2015).

It is therefore tempting to propose that the debate on fear of crime holds a certain bias. This bias reflects the dominant perspective in society at a certain moment, a perspective that in western countries over the last decades could be summed up as white, male, and middle class. Reviewing the literature, that bias has not completely left the academic tradition of fear of crime studies untouched either. In recent years a trend can be observed however of growing attention to the experience and perspective of different segments of the population, of minority groups or other social-economically challenged groups for instance, that as we have seen above can experience different threats or 'fears' than the dominant groups in society (Kirk, Papachristos, Fagan, & Tyler, 2012; Pasquetti, 2013; Sarang, Rhodes, Sheon, & Page, 2010; Solis, Portillos, & Brunson, 2009; Ucx, Van der Sman, & Jalvingh, 2014).

3.7 From the individual to the collective level. And back

Studies have, up to now, mainly focused on fear of crime as operationalised and measured at the individual level. Of course, many studies focus on the fear of crime in for instance neighbourhoods, communities, or a nation, which might suggest that fear of crime is studied at different levels of aggregation as well. On close reading however, the fear these studies focus upon is almost without exception operationalised and *measured* at the individual level. Especially in adjacent disciplines, public perceptions of or reactions to crime have been described that manifest themselves at more collective levels. Prominent examples include Cohen's (1972) *moral panics*, Garland's (2001) *culture of control,* Furedi's (2005) *culture of fear*, or Schuilenburg's (2017) *securitization of society*.

To me, the relation between the fear of crime at the individual level and these phenomena at the collective level appeared only 'loosely knit', the research into these phenomena a product of almost separate streams. Each was aware of the other(s), but without much mutual influence. Complexity science and its concept of *emergence* tempts us to venture on another road, however. From the complexity-paradigm, these seemingly different phenomena can be seen as a product of one and the same root, manifesting itself in different forms at different aggregation-levels ('emergence'), and in which each of these manifestations interacts with the other(s), resulting in a mutual influence. I will next briefly describe some of the most important manifestations.

3.7.1 Collective cognitions, emotions, and actions

Overseeing the state of affairs in social psychology, it seems reasonable to assert that fears of crime can be understood and studied (too) at the level of a group, community, or neighbourhood, whilst not being defined as the sum of individual fears, but as a construct of the group itself. Again, with cognitive, affective, conative dimensions, concerning the same different levels of psychological distance and concerning different types of threats. Social psychology describes collective or group-based perceptions, emotions and behaviours (Thomas & McGarty, 2009; van Zomeren, Leach, & Spears, 2012). Collective fear is part of that (Markus and Kitayama, 1994; Bar-tal, 2001; Teeger, 2014; Harb and Taulor, 2015). The way that – for instance – collective fear is operationalized and thought to form is described in different ways. One stream of thought is that collective fear in a group is in essence the product of the individual fears of group members that 'go viral' in a process of emotional contagion (Barsade, 2002; Sanchez-Burks and Huy, 2009). An alternative proposition is that collective fear and other emotions form in a similar way in group members through socially shared cognitive appraisal structures (Sanchez-Burks and Huy, 2009; Von Scheve and Ismer, 2013). Bar-tal (2001, p606) describes how strong and often prevalent emotions of group members "become a societal phenomenon, taking the form of a collective emotional orientation", in "which members of the cultural group are socialized or "trained" to think, act, and feel in a more or less adaptive fashion" (Markus & Kitayama

cit. in: Bar-tal, 2001, p606). It is for instance in this way, poses Bar-Tal, that among the population of Israel fear over the years has grown out to a collective emotional orientation. In both streams of thought, one could say that although individuals share similar emotions, the collective emotions that result are still more or less the sum of the fears and emotions of the individual groups members. More recently, a third stream of thought suggests that there are cognitive, emotional, and behavioural states that are a trait of the group itself instead of the sum of individual states. As Huebner (2011 p89) notes: "It is received wisdom in philosophy and the cognitive sciences that individuals can be in emotional states but groups cannot. But [.........] there is substantial philosophical and empirical support for the existence of collective emotions."

On moral panic, moral outrage and more

A specific manifestation of group based-fears and behaviours that *has* received much attention within criminology is *moral panic:* the highly volatile expression of concern or fear expressed by a group, often leading to (supposedly) exaggerated or injudicious efforts to secure safety (Cohen, 1972, 2002; Young, 2009). Core features of a moral panic are, amongst others, *hostility* towards the people perceived as responsible for the perceived insecurity (so-called 'folk devils'), broad *consensus* about the threat, and *disproportionality* (the extent of the conduct or the threat it poses are considered exaggerated) (Cohen, 2002; Goode, Ben-Yehuda, 1994; Morgan, 2009; Ungar, 2001; Welch, Price, & Yankey, 2002). In the literature, variations are described as well. Such as *moral outrage*: a collective anger provoked by the perception that a moral standard—usually a standard of fairness or justice—has been violated (Martin, Brickman, & Murray, 1984; Skitka & Mullen, 2002; Thomas & McGarty, 2009; Wakslak, Jost, Tyler, & Chen, 2007). Or *forward panic,* as initially described by Collins (2008): a process whereby tension and fear, marking a potentially violent conflict situation, is suddenly released, bringing about extraordinary acts of violence (Gross, 2016; Poynting, 2018).

Moral panic theory is not uncontested (see Critcher (2016) for an overview of critiques), but I share the view of various author that it can still provide a useful analytical tool to understand public reactions to crime (see cf. Critcher, 2016; 2018b; Godfrey, 2018). Especially when applied in a nuanced manner, such as by connecting panics to more long term discussions/concerns, about violent crime in particular (King, 2003 cit. in Godfrey, 2018, p. 11).

Introducing micro-panics

Moral panics described in the literature often covered weeks, months or even years. Moral panic theory stems from the period before social media came into existence. These new media have sped up mass-communication even more than was already the case over the last decades, increasing the speed of diffusion of news as well as of the public reactions to

that news. Due to the often-graphic character of social media messages the emotional impact increased as well, just as the possibility to organize public reactions peer-to-peer, while at the same time splintering 'the public'. I would like to pose as a hypothesis, that this made a 'flash-version' of the moral panic possible, in which all the characteristics or criteria of the moral panic are present, but that lasts only a couple of days from beginning to end. Due to the 'splintering' of the public mentioned above, moral panics can occur as well in specific, smaller segments of the public. In the period of my study, I observed both forms of public panic and/or outrage in my country, which I propose to call *micro-panics.* Examples include observed the public outcry on the state of animals in a nature reserve (the 'Oostvaardersplassen') in 2018; the intended eviction of two young Armenian children in that same year (in which a minister temporarily had to go into hiding), as well as in the uproar on the raise in enumeration of the CEO of one of Holland's most important banks in 2019. In 2021, I was consulted by a mid-sized local government in the handling of public unrest resulting from a conspiracy-theory on Satanist killings of children, during which several people were seriously threatened. It turned out that here too the moral-panic-framework could improve the understanding of how this 'micro-panic' developed and could be counteracted. What especially struck (and worried) me in those micro-panics of the last few years, that often the government/authorities (or 'the elite') had taken the place of the *folk devil,* thus making it harder for the authorities to counteract the panic.

3.7.2   Cultures of fear

Bar-Tal's construction of a collective emotional orientation of fear that I mentioned above, more or less describes how individual fears led to a culture of fear, which in its turn led back to individual fear and fear as a group-based emotion. Such a pattern is quite compatible with the paradigm of complexity and its concept of emergence. Bar-Tal is of course not the only author that ventured on the path of fear as an element of culture. Over the last decades, many authors have postulated how our (western) culture in these late or postmodern times can be described in terms of a *Culture of Fear* (Furedi, 1997, Glassner, 2000), a *Culture of Control* (Garland, 2001), a *Risk Society* (Beck, 1986), a *Prevention Society* (Pieters, 2008) or an anxiety generating *Liquid Modernity* (Bauman, 2000).

Each of these concepts offers a slightly different perspective on the central role of perceived risk, anxiety, and fear in the culture of our times. A fear, risk, and anxiety that, according to these authors, is not only related to crime and disorder, but to all kinds of (perceived) insecurities. And that is aspired by a myriad of (other) interests, mechanisms, and trends. In these works, the culture of fear and anxiety is often depicted as an important driver of the fears of crime at individual level in society. Sometimes even to the extent that the fear of crime at the individual level is considered to be the mere surfacing of existential fears rooted in our culture, projected onto crime and disorder.

For some, that is a rather elitist stance however, disrespectful to for instance inhabitants of high-crime neighbourhoods (Hough, 2018a; Matthews, 2009). I share that critique. Over my years of research on fear of crime, I have seen enough people who seemed to transcend their deeper lying, existential worries, fears, and anxieties in worries about crime and disorder indeed. But I also observed and studied too many people for which their fear of crime was rightfully and painfully just that: a fear of crime (see cf. Eysink Smeets and Bervoets, 2011; Eysink Smeets, Bervoets, *et al.*, 2013; Schram, Eysink Smeets and Hendriks, 2021). Farrall, Jackson & Gray came to similar conclusions, which led them to make the elegant distinction between *expressive* and *experiential* fear of crime (Farrall & Jackson, 2008; Farrall, Gray, & Jackson, 2006b; Jackson, 2004b, 2004a).

3.8   Temporal aspects

Contrary to the way it is often understood in security practice, fear of crime is not (only) about what actually happens or has happened (*retrospective*) but concerns foremost what people think *may* happen *(prospective).* Garofalo (1979, p. 845) for instance makes the distinction between *actual* and *anticipated* fear.[5] Of course, this anticipation can be influenced by concrete experiences (retrospective), but many other determinants and mechanisms play a role as well. As this overlaps the way fears of crime form, I will elaborate on this issue in more depth in chapter 4. Two temporal aspects of fear of crime have been lesser described in the fear of crime literature, however, and I will discuss these next.

3.8.1   On flashing vs. simmering fears

Mainstream fear of crime studies often describe – and particularly measure - the fear of crime at a certain moment in time and are thus often cross-sectional, but not cross-temporal. As noted before, longitudinal trends in fear of crime are rarely studied. The question of how fear of crime can develop in one individual over time even less. The available data made some authors conclude that the prevalence of fear of crime in society is a relatively stable phenomenon over time (cf. Warr, 1993). The trends in measured fear of crime presented in chapter 7 show however, that this may be the case when fear is monitored at country level, but only to an extent. Variation is visible at a lower aggregation level, as found in studies of neighbourhoods in the Netherlands. Many neighbourhoods showed relatively stable patterns, but I found very volatile patterns as well, which could often be attributed to changes in the criminal, social, physical and/or institutional environment. Other manifestations of fear of crime can even carry such a high volatility in them by definition, such as in the case of *moral panics* and *micro panics*. Exploring the available studies and data I find it appropriate to pose that fear of crime and related perceptions of insecurity can take 'simmering' and 'flashing' forms, sometimes barely

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[5] While this 'actual fear' better be called 'fright'.

noticeable ('background'), sometimes highly visible ('foreground'). As I will construct in the following chapters, these differences result in differences in effects as well. And this difference may be another link between the manifestations of fears at different levels. Could it for instance be that a collective outburst of concern about a particular (set of) crime(s) is rooted in the more general 'background' of level of fear of crime, as suggested by King (2003, cit. in Godfrey, 2018, p. 11)? In chapter 6, I will argue how this certainly may be the case.

3.8.2   On curvilinear patterns and different stages

In the more volatile forms of perceptions of security, a more or less curvilinear pattern can be observed quite often. This may apply to worries and fears about terrorism for instance, the influx of migrants or, more recently, on the Covid-pandemic. (Eysink Smeets and Foekens, 2018a; Eysink Smeets, Foekens and Natascha Sprado, 2018; Eysink Smeets, 2020a). Moral panic theory in essence describes such a curvilinear pattern as well. Based on analysis of public reactions in a large number of terrorist attacks, Collins (2004) sketches a similar pattern for fear of terrorism, in which he even describes as a *life cycle* of public reactions to major acts of terrorism, divided in four phases, each with its own duration, character, intensity and consequences.

Up to now, I was not able to find many studies on (traditional) fear of crime that follow the intensity and character of fear of crime at the individual level (and of the same individuals) over a longer period of time. Gabriel & Greve (2003, p. 602) suppose that situational fear of crime manifests itself in a "dynamic process that has a beginning and an end, and that lasts for a specific length of time". Ditton & Innes (2005) mention the finding that the fear of crime measured over time in a specific context turned out to be stable at the *aggregate level*, but not stable at the level of *individual respondents*. Russo & Roccato (2010) observe in their longitudinal study of the prevalence of fear of crime that "the effect of recent direct victimization on fear of crime is strong", but add "that such effects are substantially short" (Russo and Roccato, 2010, p. 968). In their longitudinal series of surveys over the course of a serial killing spree in Baton Rouge, U.S., M. R. Lee & DeHart (2007) observe a somewhat similar pattern: a moderate increase in fear of crime during the serial killing spree, followed by a sharp decline after the apprehension of the serial killer.

Could these observations point to the possibility that, especially in the case of *experiential* fear of crime, fear develops in the individual in a similar curvilinear pattern as observed at higher aggregation levels and/or in other threats? Such an observed or presumed curvilinear pattern would open another road for intellectual venture as well. A pattern like this shows for instance an interesting resemblance to Selye's (1946) 'General Adaptation to Stress-theory'. Selye describes the curvilinear pattern in our stress reactions, divided in three stages (alarm, resistance, exhaustion). Stress is our reaction to noxious or aversive stimuli (Butler, 1993) or "a particular relationship between the person and the environment

that is appraised by the person as taxing or exceeding his or her resources and endangering his or her well-being" (Lazarus and Folkman, 1984, cit. in Butler, 1993, p1). In the next chapter I will describe the important role that such "stimuli", "resources" and "endangering of wellbeing" play in the formation of fear of crime as well. And I will argue why and how stress and fear of crime have more common ground than up to now has been acknowledged. That could make it worthwhile as well to put a phased model of fear of crime to more scrutiny.

3.9   Conclusions

Fear of crime is more than (just) fear of (just) crime. It is a confusing umbrella term for a multitude of public reactions to crime and disorder, ranging from judgements and values to sentiments and emotions, including the behaviours through which these are expressed. These public reactions can manifest themselves at the level of individuals, groups of people and societies. The concept of fear of crime may suggest the existence of one construct, but in the literature the need has rightfully been stressed to describe fear of crime as a multifaceted and multidimensional concept, comprising many subconstructs.
This multidimensionality has further increased in recent years. From the 1960s on, fear of crime was often related to the violent crimes and property crimes that formed the key security threat to the mainstream middle class. In the new millennium, it is related to a wider array of perceived threats to security. It is wise to frame the 'fears' of these new threat as new subconstructs.

The subconstructs of fear of crime can manifest themselves with different amounts of vehemence, volatility, and visibility. Fear of crime is often cast as a relatively stable phenomenon. That may *partly* be the case when studied at high aggregation levels; at lower levels more differences can be observed, however. Where fear of crime can be slowly simmering and hardly noticeable under some conditions but, in other situations can be suddenly 'flashing', clearly visible. These 'flashing' forms regularly show a curvilinear pattern.

With a complex concept like this lurks the risk of *terminological chaos* even more than already was the case. This brings the necessity to be very precise and clear about what construct is meant or studied, in which context, at what aggregation level, at what moment in time. In researching fear of crime, this has up to now not always been the case. And as the complexity of the concept is increasing, to me it seems time to move beyond the observation that fear of crime is 'a multidimensional concept consisting of many subconstructs'. Instead, I would like to expand the concept of fear of crime to a classification in a *family* of perceptions of security, consisting of different *genus* and *(sub)species*, each with its individual characteristics, but with shared traits of the family and genus (see figure 6).
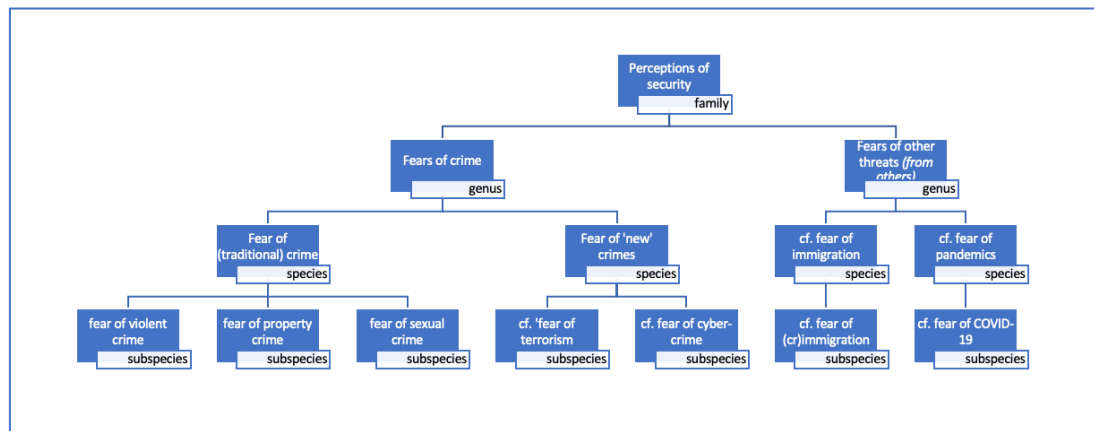
Figure 6 Tentative taxonomy of perceptions of security as used in this thesis, using the distinction in 'family-genus-species etc., and using the type of perceived threat as the primary dimension.

Building on earlier work, in this chapter I described five dimensions in this chapter that could provide the framework for such a classification or *taxonomy*. The first is the cognitive, affective, or conative character of the construct in question. Second is the aggregation level that the perceptions of security are related to (individual, situational, societal). A third dimension is the type of perceived threat in question. Here I have used the term 'traditional fear of crime' for the forms that have been studied in the first decades of the research tradition of fear of crime and 'new fears' for the perceptions of the criminal threats that became prevalent in the new century. Combined, it could be more apt to speak of the *fears* of crime than of *fear* of crime. One aggregation level higher, I speak in this thesis of 'perceptions of security', a collection that encompasses 'fears' resulting from perceptions of non-criminal events as well. In this way, a family of perceptions of security emerges as depicted in figure 6. The fourth dimension is the (type of) individual or group that experiences the perceptions of security. The fifth dimension is the aggregation level at which these perceptions manifest themselves: as individual or collective 'fears' or as aspect of culture. Here I drew on complexity studies and its concept of emergence, to propose that the manifestations at these different levels are stemming from the same root, only manifesting themselves in different ways at different levels, while mutually influencing each other. Seen in this way, the paradigm of complexity tempts to study these manifestations at different aggregation levels in relation to one another.

Further research is needed to see if it is useful to include a sixth dimension in the classification: that is, the vehemence and temporal pattern in which the perceptions of security become manifest. Can the curvilinear pattern that can be observed in more 'flashing manifestations' indeed be divided in separate phases, each with their specific characteristics? And if so, could such a such a distinction advance our understanding.

4 How these 'fears' form: a process-oriented perspective

4.1 Introduction

In the previous chapter, I discussed what is traditionally understood by fear of crime. I also proposed to widen the concept, leading to a 'family' of perceptions of security. In this chapter, I will explore the way these fears and perceptions of security form. In the previous chapters I have argued how fear of crime studies resulted in a substantial body of knowledge on the determinants of fear of crime, but that far less is known about *how* these determinants lead to fear of crime. Signs of social disorder, victimisation to crime or a perception of being vulnerable all seem to elicit at least *some* subconstructs of fear of crime to *some* extent in *some* individuals. But in what way and under what conditions do these cues, experiences or perceptions lead to (which subconstructs of) fear of crime? Wikstrom and Sampson (2006, p. 2 cit. in Jackson, 2009) observe on research into crime: "according to a mechanism-based approach most correlates (or 'risk factors') of crime are in fact spurious associations that denote markers rather than represent mechanisms that actually cause a particular social action." In research on fear of crime, it does not seem to be much different. What are the processes at work here? What are the relevant mechanisms? On those questions, the body of knowledge of fear of crime studies is far less developed, and the formulation of theory is not well-advanced. As I observed before, that is not only the case in traditional fear of crime studies, but in adjacent fields as well, such as in study of moral panics or fear of terrorism. A situation that Critcher (2016, p. xxxii) so eloquently described as a *Polo mint:* with empirical data in abundance, but a gaping hole in the middle where theory should be.

In this chapter, I will explore ways to mend that hole. I will start with the fear of crime and related perceptions of security at the individual level. First, I will take stock of what the research tradition of fear of crime *has* on offer on the determinants of fear of crime and what *is* known about the processes and mechanisms that could be at work. Then, I will develop the idea that although the determinants of perceptions of security may be specific, the processes and mechanisms by which these form are universal. Three of those universal processes are central: *perceiving, processing,* and *reacting/coping.*

Perceived cues from the environment seem to play an important role in fear of crime and perceptions of security. Therefore, I start with the process of *perceiving.* Using, among others, the classic work of Brunswik (1944) I will construct how people, mostly subconsciously, form impressions of their environment based on a multitude of cues. Then I will proceed to the ways these cues are *processed,* using the work of Kahneman (2011) and others. Finally, I will explore how these processes lead to *reactions* in the form of different subconstructs of fear of crime, drawing from the study of stress, especially Lazarus (1966)

In my line of argument, this triplet forms the backbone of processes and mechanisms along which cues from the environment lead to fear of crime at the individual level.

4.2   On determinants of fear of crime

Research has shown that a multitude of factors can influence fear of crime, resulting in an extensive body of knowledge on its 'determinants'. As mentioned before, these are often summarized in 'models', of which three are most commonly described: (1) the victimization model; (2) the social disorganization model; and (3) the vulnerability model. (Taylor and Hale, 1986; Katz, Webb and Armstrong, 2006; Alper and Chappell, 2012; Henson and Reyns, 2015). The victimization-model describes the influence of both direct and indirect victimization on fear of crime (cf. Tseloni and Zarafonitou, 2008; Zahnow *et al.*, 2017). The social disorganization model encompasses the influence of social disorganization on fear of crime: both as a predictor of the prevalence of crime itself as of low informal social control and/or collective efficacy (cf. Markowitz, Bellair, Liska, & Liu, 2001b). The vulnerability model consists of the factors that diminish the efficacy of an individual or community to handle crime and its consequences (Killias, 1990; Rader, Cossman and Porter, 2012; Valente, Valera Pertegas and Guàrdia Olmos, 2019). These models have substantial and significant value in explaining (variations) in fear of crime at the individual level.

In his acclaimed review, Hale (1996) used a somewhat different distinction, summarizing the factors that explain variation in fear of crime in three groups: (1) vulnerability, (2) victimization and experience with crime, (3) an environment of fear. At the same time, Hale notes that for "some researchers fear of crime is an emotional response to signals of danger in the environment while to others it is a manifestation of a general uneasiness about the world" (Hale, 1996, p. 42). In Dutch (empirical) work on determinants of fear of crime a somewhat different clustering of determinants was developed, on which I will come back to in paragraph 4.5.3

4.3   From 'what' to 'how': on processes and mechanisms

From the previous paragraph it will have become clear that the body of knowledge in fear of crime studies is rich on *'what'* influences fear of crime. It is far less evolved when it concerns the *'how'*. If victimization is a relevant factor, *how* does this lead to (one or more subconstructs of) fear of crime? And how does it interact with other determinants, such as vulnerability or a perception of disorder? How do these perceptions form? How is it possible for instance, that people often perceive that the prevalence of crime is rising, while victimization as measured in victim surveys and registered crime shows the opposite? Why is it that some incidents of crime or disorder seem to lead to a high amount of perceived insecurity in a population, but others do not? To answer these questions, insight is needed into the processes and mechanisms that are at work.

In mainstream fear of crime studies, far less work is done on these processes and mechanisms than on the determinants described above. Various authors have pointed out that, to make progress, a better use should be made of theoretical notions from other disciplines. Among the first to venture down this path are Gabriel & Greve (2003), with their much-cited article *The psychology of fear of crime.* One of the important notions that Gabriel and Greve introduced is the distinction between fear of crime as a *disposition* and fear of crime as a *state.* Around the same time, Innes & Fielding (2002) took a different route, using Goffman's *symbolic interactionism* to develop their *signal crime perspective.* This perspective helped to explain why certain crimes (or other events that people see as threatening) have a far greater effect on fear of crime than others: it is not the crime itself that causes the fear of crime, but the message it conveys (to the specific individual) that the moral, social, or physical order in a specific environment is at risk.

Some years later, Jackson, Gray and Farrall further progressed on the psychological path. This led for instance to the concept of *sensitivity to risk* that may explain variation in fear of crime between individuals (Jackson, 2011; Jackson & Gouseti, 2014b) and to the distinction between *experiential* and *expressive* fear of crime described in chapter 3. Jackson and Gouseti focused, among others, on the application of *construal level theory* to fear of crime (Jackson *et al.*, 2010; Jackson and Gouseti, 2015; Gouseti and Jackson, 2016). Their work shows that the concept of *psychological distance* can strengthen the theoretical foundation of fear of crime indeed. More or less in line with Jackson *et al's* expressive dimension of fear, others theorized fear of crime as a transmutation of a general feeling of unease about society, a *generalised insecurity* (Hummelsheim *et al.*, 2011; Hirtenlehner and Farrall, 2013; Spithoven, 2017)*.* Others focused on the influence of media on fear of crime. Here, Gerbner & Gross' (1976) *cultivation theory* initially seemed to offer an interesting perspective, but later had to be ruled out as a viable perspective as it could not catch the complexity of the multitude of factors at work (Chadee and Chadee, 2016). This made Spithoven (2017, p. 59) conclude that "the bottom line is that too much remains unclear to be really conclusive".

In an adjacent field of study that partly overlaps the study of fear of crime: the perception of risk, the *psychometric paradigm* evolved from insights from (cognitive) psychology on risk and risk research. Prominent authors such as Slovic (1987; Slovic, Fischhoff, & Lichtenstein, 1981) and Kahneman and Tversky (1977, 1979) showed how the perception of risk is strongly influenced by affect and emotions, differs greatly between individuals (and professionals) and – amongst others – is perceived as greater the more a risk is less known and understood. They theorised as well that people use 'rules of thumb' or *heuristics* to evaluate information on risks. As these can be less accurate, these may lead to cognitive biases when assessing risks (Kahneman & Tversky, 1979; Tversky & Kahneman, 1973).

4.4 Proposing a process-oriented perspective on perceptions of security

Reviewing the international state-of-the art in fear of crime-theory as described above, the conclusion I drew in chapters 1 and 2 seemed justified once again: that theory formation on fear of crime is at best fragmented and sparse. There are certainly 'dots on the map' of fear of crime theory, but these dots are in urgent need of connecting lines. To paraphrase Vanderveen's (2006) parable of the six blind men and the elephant once more: where it concerns theory on fear of crime, we certainly have a trunk, some skin and what appears to be a rope, but…where and what is the elephant?

From my earlier work in Dutch applied research I described in chapter 1, I had learned how theory formation on fear of crime could profit from taking a process-oriented angle, using theoretical notions from other disciplines as the broader theoretical framework. For this research, I therefore took this interdisciplinary, process-oriented perspective as a starting point (Eysink Smeets *et al,* 2010, 2011). One object was to see whether it would also fit other subconstructs of fear of crime, thus underpinning the concept of perceptions of security as a 'family' of constructs as well. A second objective was to see if integration of notions from complexity science could be used to explain phenomena and observations that remained thus far unexplained. In the mixture of sub studies that were undertaken during this thesis, an important goal therefore was to see if findings were consistent with the theory-formation-under-way and/or whether explanations could be found for phenomena thus far unexplained.

In this thesis, I will approach perceptions of security therefore as the result of a *process*. A process in which cues from the environment (in whatever form) are perceived and processed, leading to perceptions of security at the individual *and* collective levels. I will also propose that, in this process, *mechanisms* are at work that influence the perception, processing, output and outcomes. Following complexity theory, I will approach process and mechanisms from an interdisciplinary perspective, as a monodisciplinary perspective will not suffice to come to a fuller understanding of a complex phenomenon as fear of crime. To achieve a transparent line of argument, I will divide my line of reasoning into different parts. The first three parts lead to perceptions of security at the individual level: *perceiving, processing,* and *appraisal and reacting* and are discussed in this chapter. The outcome of these three subprocesses, including the emergence of manifestations at higher aggregation levels, is strongly influenced by *persons* and *contexts*, giving the overall formation process a *transactional* character. This I will discuss in chapter 5. Effects will follow in chapter 6, where I will argue as well that these effects *per definition* feed back into the processes in which perceptions of security form, thus resulting in a *circular process.*

For reasons of compactness and transparency, in the three chapters in which I propose the process-oriented perspective on perceptions of security I have put my theoretical line of reasoning at the foreground. That does not mean that the empirical sub studies I conducted

within the framework of this thesis did not contribute to the development of the process-oriented perspective I propose in these chapters. On the contrary: in the tradition of sound explorative research (see chapter 1) they formed the valuable steppingstones on which I could develop and refine my line of argument, going back between theory and practice, and for instance pointed me to aspects of the formation process that could not be left unexplained. In the text of the three chapters, the findings of these sub studies play a subordinate role however, although I certainly refer to their findings where relevant. In the chapters thereafter, empirical findings of the sub studies take centre stage again.

4.5   On perceiving

The first part of the process-oriented perspective on perceptions of security is the process of perceiving. In the fear of crime literature perceptions play a central role. Perceptions of risk, and of prevalence of crime or victimization are elements of the cognitive dimension of fear of crime for instance. Perceptions of the impact of those crimes, of social disorder or of people's vulnerability form well-known determinants of fear of crime. Once again, how these perceptions form receives far less attention. In my earlier study of perceptions of disorder, harassment and radicalization (Eysink Smeets, 2010) I noticed how Brunswik's probabilistic functionalism and Lens Model could provide a useful framework.

Brunswik's lens model

Ecological validities

Selection of cues

Distal variable

Proximal cues

Judge-ment
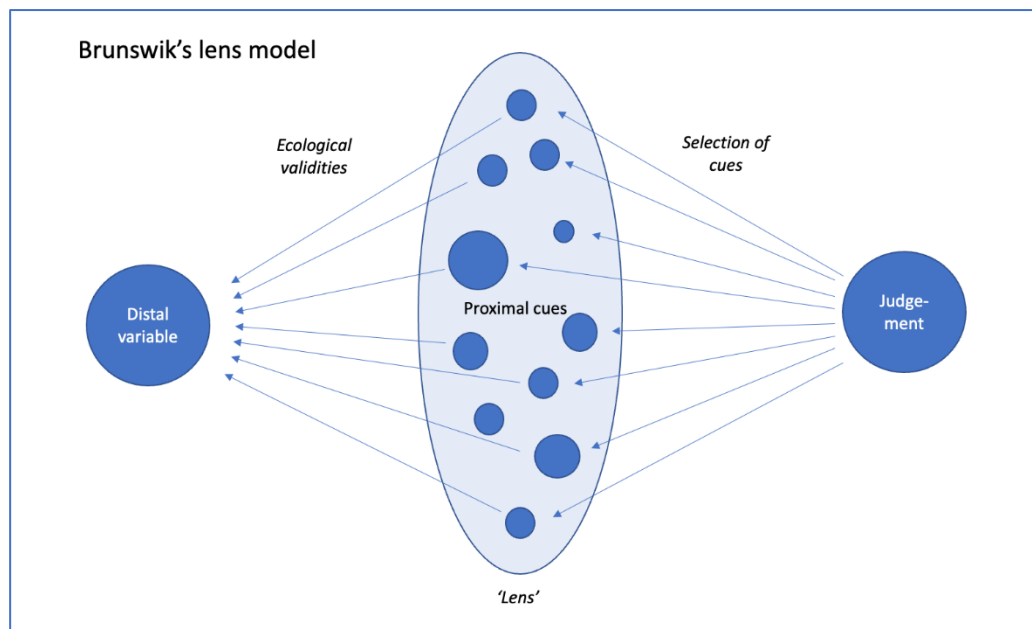
'Lens'

Figure 7 Simplified depiction of Brunswiks Lens Model, after Dhami et al, 2004

Brunswik (1952, 1956) emphasized that people use proximal cues in the environment to determine a characteristic of that environment that cannot be detected or determined directly. This can be attributed to the beauty of that environment, its pleasantness or safety

and security. In the case of security, people use cues that they have come to know as being related to (in)security (Nasar, Fisher and Grannis, 1993; Nasar and Jones, 1997). The combination of these cues form, in Brunswik's perspective, the 'lens' through which people form an image of the distal variable. The higher the correlation is between the proximal effects and the distal variable, the higher the ecological validity of the proximal effect, as the more accurate the distal variable can be foreseen from the observation of the proximal cues. Brunswik adds that the proximal cues are themselves interrelated, thus introducing redundancy of proximal cues in the environment (Craik & Appleyard, 1980; Brunswik, 195 in: Dhami, Hertwig, & Hoffrage, 2004; Shaw & Gifford, 1994; Tapp, 2001).

People learn what cues are valid and reliable indicators of the distal variable through experience and social learning. Castallan (1977) named that learning process *multiple cue probability learning (MCPL),* the process along which people gradually perfect the assesment of the ecological validity of (combinations of) cues. This learning can occur both consiously and subconsiously: as controlled or automatic information processing (Shiffrin and Schneider, 1977).

Following Spithoven (2017), it is plausible that a foundation for Multiple Cue Probabilistic Learning on security is laid in *socialization.* "Don't stay out alone at night", "don't cycle back alone after soccer training", "don't accepts sweets from men you don't know", "don't go to that neighbourhood, because people there are criminal", "don't wear such provocative clothes, because men may harass you". Those messages that almost every parent (and many teachers) give to their children must form a first basis, the modelling through their behaviour even more (learning by imitation). This basis, as for instance Bar-tal (2001) points out, can also be seen as a reflection of culture.

Experience is a second source. The experience of (direct or indirect) victimization for instance, is proven to (negatively) influence the perception of security. But it works the other way around as well. Such as in the example of Blokland's (2009) concept of *public familiarity.* Blokland showed that cues seen as a proximal variable for insecurity, may not be valid in a specific situation. By enlarging the familiarity of people with that specific situation they learn to distinguish which cues have ecological validity in that situation or not, thus influencing their perception of security.

Social talk is another source. By hearing from others about their experience in or judgements of specific situations. For social constructivists it is social interactions where security or insecurity is formed or defined (Van Den Herrewegen, 2011). The exchange of information on security – and especially on proximal cues for security in a specific situation – does not just occur in social networks with close ties (such as between friends, relatives). Granovetter's (1973) 'strength of weak ties' thesis states that information will spread from group to group along weak ties as well. Cialdini (2001) adds in his Principle of Social Proof

that people get easily inspired by experiences or choices that others have already made: if they came to a certain conclusion or choice, that probably was for a reason.

A last source is formed by the *media.* The traditional media, but in recent years social media as well. For situations, events, developments outside the reach of people themselves these media even will form the most important source of information.

4.5.1   On mental maps and heuristics

In the learning process people form *mental* or *cognitive maps* of their environment (Lynch, 1960). Among these are mental maps of insecure situations, based on a combination of proximal cues for insecurity. In interviews with members of the Dutch public, Spithoven (2017) for instance found five common mental maps of "networks of characteric elements of situations or locations that people were motivated to avoid, due to the perceived high risk of themselves falling victim of crime" (Spithoven, 2017):

(1)   The big city (with addicts, immigrants in general and immigrants from Eastern Europe in particular as proximal cues for the risk of pickpocketing and robbery and young people, groups of people in general, addicts and people who behave anti-socially as cues for the risk of violence and aggression).
(2)   Travelling after dark (with as proximal cues being alone after dark, in combination with stereotyped 'others', such as addicts, immigrants, groups of people in general and groups of intoxicated young men).
(3)   Wooded areas (with again being alone there after dark as a major proximal cue, in combination with being unable to see if people are hiding in the bushes. These cues point for women towards the distal variable of sexual assault).
(4)   ATM-machines (with 'suspicious people hanging around' as proximal cue, in combination with actual use of the machine).
(5)   Home alone after dark (a mental map Spithoven found among a substantial portion of women-respondents. The combination of darkness and not having someone to protect them formed important proximal cues here, in combination with a known risk of burglary).

Overall, darkness, being alone, and the presence of stereotyped 'others' turned out to be major components of the mental maps of Spithoven's respondents: important proximal cues they used to assess the distal variable of 'possible victimization' or insecurity.

It is not hard to recognise in Spithoven's mental maps the three constituting elements of routine activities theory (Cohen and Felson 1979; Felson 1994). With a motivated offender (the 'stereotyped others'), a suitable target (the woman alone in the woods in the case of sexual assault, an ATM-user) and the absence of a capable guardian (with 'being alone' as central issue). To me, this raises the question whether people use a layman's version of this

theory to distinguish their chance of victimization, as a kind of *heuristic* to quickly evaluate their security. It even tempts me to wonder if, underneath the use of the 'stereotyped other' as cue for crime risk, another layman's version of a well-known criminological theory is hidden: that of Hirschi's theory of control (Hirschi, 1969).

In Spithoven's cues another important distinction derived from the literature can be distinguished, between (cues of) *threat* and (cues of) *control.* People do not only assess their security by the perceived existence of a *threat*, but by the ability to *cope with* that threat as well (for instance by feeling strong or having protection). See for instance Innes' work on signal crimes and control signals (Innes and Fielding, 2002; Innes, 2014), or the distinction between positive and negative determinants of fear of crime (Boers, Steden and Boutellier, 2008)[1]. An illustration can be found in the work of Jackson et al. (2012, p. 1), who noted that cues (of disorder) in the environment "signal to observers first a weak social order, second the erosion of shared commitments to dominant norms and values, and third the failure of authorities to regulate behaviour in public space".

4.5.2   Determinants of fear of crime as Brunswik's proximal cues?

Earlier in this chapter I described how in the literature determinants of fear of crime have often been clustered in different models. In a Dutch study Oppelaar & Wittebrood (2006) use a different form of clustering, leading to a conceptual model in which determinants are grouped at three levels of aggregation: (1) the individual context (in which they cluster influential factors such as personality, lifestyle, perceived vulnerability, direct and indirect victimization, (2) the situational context (including the layout of public space, social composition, social cohesion, physical degeneration and the prevalence of crime and nuisances) and (3) the sociocultural context, under which they describe more general trends in society that can elicit uneasiness, such as individualisation, internationalization, and for instance changes in media reporting. In an earlier study, based on a combination of literature review and empirical work, I built on Oppelaar & Wittebrood (2006), adding one group of factors at the situational level: the institutional context (Eysink Smeets & Meijer, 2013). With this, I described the influence that activities of institutions such as the police, local government, housing agencies (can) have on fear of crime, not only in a mitigating way, but increasing fear of crime as well (in chapter 6 I will go deeper into this influence). I also added 'media', positioned between the situational and macro-context. This led to the categorization of relevant determinants, a categorization that was used as analytical framework – and further perfected - in all the relevant sub studies of this thesis. See figure 8 that, as an example, summarizes the most important determinants of fear of crime of five neighbourhoods in a Dutch city, as found in one of the last sub studies undertaken within the timeframe of this thesis (Schram, Eysink Smeets and Hendriks, 2021).

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[1] (See as well Custers & Van den Bulck, 2012; Jackson, 2004, 2009, 2011, 2013).

The framework is based on the assumption that most determinants of fear of crime influence fear of crime by acting as proximal cues for (in)security in a *combination* of cues that are related to *threat,* and cues that are related to *control*. This may especially be the case for determinants in the four 'environments' within the situational context (see figure 8):

(1) The *criminal* environment: the (visible signs of) crime, disorder, harassment, and other behaviours people perceive as criminal or disorderly, thus resulting in cues of *threat.*

(2) The *social* environment: the composition of the population and social (dis)organization, including social cohesion and collective efficacy, which, depending on the situation, can result in proximal cues of *threat* (for instance in a situation of social disorganization) and/or proximal cues of *control* (cf. in a situation of strong collective efficacy).

(3) The *physical* environment: the design, layout, and maintenance of the built environment, resulting as well in proximal cues of either threat or control.

(4) The *institutional* environment: the visible attention to and/or (absence of) activities in the environment, thus again potentially leading to cues of control and/or threat (such as in the case of a sudden police presence: sign of control or sign of a threat?[2])
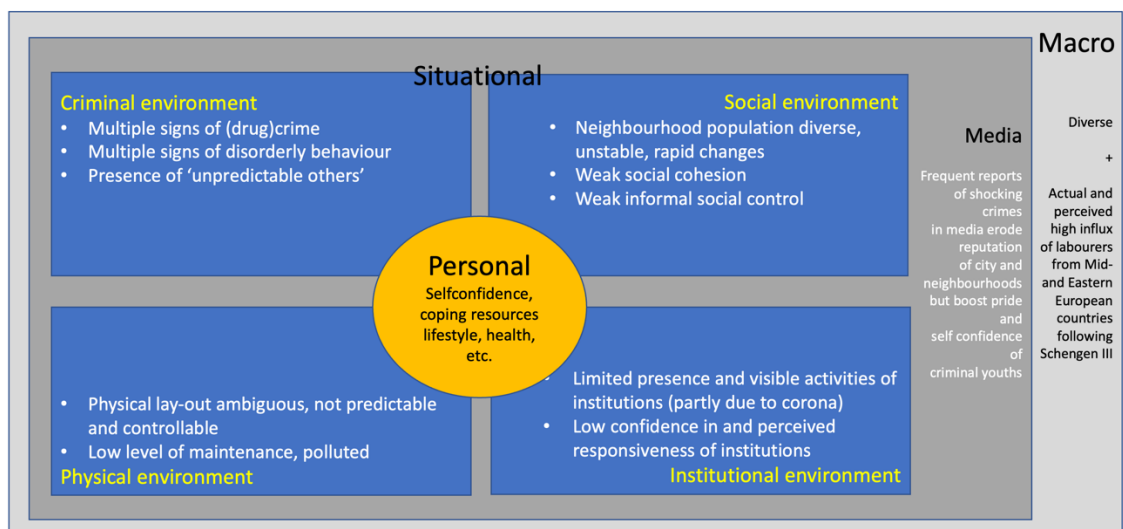
Figure 8 Categorization of determinants of fear of crime, in three aggregation levels, with findings on the determinants of fear of crime as found in one of the sub studies of this thesis as example. After Eysink Smeets & Meijer (2013), with summarized findings of Schram, Eysink Smeets and Hendriks (2021).

Following Brunswik, the *combination* of these cues forms the 'lens' through which individuals estimate the 'distal' variable of security. As our environment contains an endless number of possible cues, people select, depending on the specific characteristics of the

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[2] (see cf. Barker, 2013; Eysink Smeets et al., 2010; Hinkle & Weisburd, 2008; Power et al., 2016)

individual, the sources at hand, their perceptual learning, and the salience of specific items at that moment. Famous studies such as the 'gorilla experiment' (Chabris and Simons, 1999) have shown that we can be completely unaware of cues that, to the outsider, seem impossible to overlook, resulting in *change blindness* or *inattentional blindness* (Mack and Rock, 1998; Simons and Levin, 1998; Chabris and Simons, 1999)*.* The opposite is true as well: when we are fearful, we have an attentional bias[3] for threat-related cues (Arntz, Rauner and Van den Hout, 1995; Bar-Haim *et al.*, 2007). In acute dangerous situations this selective attention may even lead to a form of tunnel vision, a supposed evolutionary mechanism that helps us to survive.

4.6   On processing: the relevance of two systems

In the previous paragraph I described how perceptual learning can take place in two ways: automated or controlled; as Shiffrin & Schneider (1977) pointed out. Their findings were one of the first steps "into the notion that some basic social-perceptual processes […] could have efficient and unintentional components (that is, influences that operate outside of one's conscious awareness)" (Bargh *et al.*, 2012, p. 593). Since then, enormous progress has been made in the study of automacity of higher mental processes. That has accumulated, for instance, in the advancements in behavioural economics, leading to the seminal publications of Ariely (2008) and Kahneman (2011).

In fear of crime studies, the presumed irrationality of fear of crime has long been a central theme, at both individual and collective levels, such as in moral panics (Garofalo, 1979; Katz, Webb, & Armstrong, 2006; Lupton & Tulloch, 1999; F. H. Norris & Kaniasty, 1994; Ruggiero, 2012; Wein, Willems, & Rouwette, 2016; Young, 2009). Ariely (2008) pointed out that although behavioural reactions to cues in the environment may be irrational, they are *predictably irrational*. They may be formed in part by subconsious, instinctive, automated processes, but these take place along common, often well researched and therefore well known patterns and mechanisms: heuristics and biases. Kahnemann (2011), after years of study of such patterns, made a further contribution in the distinction between two distinctly different systems with which people process external stimuli or cues, which he simply named System 1 and System 2. Kahnemann was certainly not the first to make this distinction and the terms System 1 and 2 had been for instance been coined by Stanovitch & West (1999) more than a decade beforehand. Due to the sheer elegance of Kahnemann's description, I will follow his distinction.

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[3]   Even: a biased attention, biased interpretation, and biased memory

4.6.1   On Kahneman's System 1 and System 2.

System 1 "operates automatically and quickly, with little or no effort and no sense of voluntary control" (Kahneman, 2011, p. 20). It is the spontaneous system that processes stimuli fast, intuitive, associative, without knowing.

System 2 "allocates attention to the effortful mental activities that demand it, including complex computations. The operations of system 2 are often associated with the subjectieve experience of agency, choice and concentration" (Kahneman, 2011, p. 21). System 2 is the reflective system, slow and rational.

People often like to see themselves as rational human beings, thus processing information along the lines of system 2. That has long been the leading paradigm in, for instance, economics: seeing people (consumers) as rational, making their choices along reflective, rational lines (Simon, 1953; Hogarth *et al.*, 1987). Overseeing the rationality-irrationality debate in fear of crime studies (and in security practice), this paradigm seems to have had its temptations for that domain as well. Kahneman shows however, that in day-to-day-life, System 1 is the prevailing system with which cues from the environment are processed. This way it can be expected that in most situations, the proximal cues that people use to asses the risk of victimization or the security in their immediate surroundings, their community, their country are processed by System 1 as well. Not reflective or rational, but intuitive and associative. As this process is effortless, one could call this a very efficient way of being able to constantly assess the security in one's environment. But as this system is based on 'rules of thumb' ('heuristics'), resulting from the aforementioned *multiple cue probabilitic learning*, it is not always completely accurate (Slovic, 1987, 2002; Jackson, Allum and Gaskell, 2005; Jackson, 2006; Kahneman, 2011). Some authors point out that this may especially be the case in the event of risks that have a high-impact but a low probability as, due to that low-probability (and thus prevalence), people have had only limited opportunity to learn (Huddy *et al.*, 2002; De Smidt and Botzen, 2018).

Given the debate in fear of crimes studies on the supposed irrationality of fear of crime, it has always struck me as somewhat curious that these psychological notions of two distinctly different systems of processing hardly seemed to have reached the literature[4]. Especially, since these notions form an essential part of the psychometric paradigm in the adjacent domain of risk research. Here, Slovic (2002) for instance pointed to the relevance of an experiental way of processing next to a rational way, that, as he remarked:

> ….enabled us to survive during the long period of human evolution and remains the most natural and most common way to respond to threat, even in the modern world.

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[4] Although a few authors certainly paid attention to the dual processing as described here. See cf. Jackson, Allum, & Gaskell, (2006); Smulders (2015).

Experiential thinking is intuitive, automatic, and fast. It relies on images and associations, linked by experience to emotions and affect (feelings that something is good or bad). This system represents risk as a gut feeling, telling us whether it is safe to walk down this dark street or drink this strange-smelling water. Proponents of formal analysis, the newcomer on the risk management scene, tend to view ''risk as feeling'' as irrational. It is not. Sophisticated studies by neuroscientists such as Antonio Damasio and others have demonstrated that logical argument and analytic reasoning cannot be effective unless guided by emotion and affect (Damasio, 1994). Rational decision making requires proper integration of both modes of thought. (Slovic, 2002, p. 425)

In his work, Slovic made plausible that perceptions of risk are formed in a similar *predictably irrational* way as described by Kahneman, as the result of two systems, influenced by heuristics and biases. He also showed how perceptions of risk could be predicted by taking these heuristics and biases into account.

4.7   On appraisal and reacting

So, people use a combination of proximal cues - stemming from their criminal, social, physical and institutional environment - as a 'lens' through which they form an image of the distant variable 'security'. That can be their personal security or the security in their neighbourhood; the security in a specific situation; or the state of security in general. In this process, they have given meaning to cues of threat and cues of control. But then the question arises: how does this result in fear of crime, or in perceptions of security? Or, to phrase it more precisely, in the various constructs that together constitute those perceptions? In the cognitive, affective, and conative dimensions for instance? In my earlier, applied work on perceptions of nuisance, disorder and polarisation (Eysink Smeets, *et al.* , 2010, 2011) I used stress theory to answer this question.

The concept of *stress* has much in common with *fear of crime.* Just like fear of crime, it is a "highly subjective phenomenon that defies definition".[5] But where they are defined, the definitions of both concepts bear a strong resemblance. Mechanic (1962 p7). defines stress as the "discomforting responses of persons in particular situations". Basowitz, Persky, Korchin, & Grinker (1955) define stress as feelings that typically occur when an organism is threatened. Stress has also been described as a *response* with a positive or negative character, depending on the cognitive interpretation of the physical symptoms or physiological experience (Butler, 1993). In the earlier years of stress studies, stress was

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[5] Website of the American Institute of Stress (https://www.stress.org/what-is-stress/ lastly visited 28-10-2018). Interestingly, the next sentence on that website should sound familiar in fear of crime studies as well: "And if you can't define stress, how can you possibly measure it"?

mainly seen as a physiological response, with Selye's (1956) *systemic stress theory* as leading concept. Lazarus (1966) and Lazarus & Folkman (1984) widened the view however, studying and defining stress from a cognitive psychological perspective. This led to Lazarus (1966) first comprehensive theory on stress, extended over the years by Lazarus & Folkman (1984, 1986) into their *transactional* theory of stress. In this theory, stress is seen in "a relationship with the environment that the person appraises as significant for his or her well-being and in which the demands tax or exceed available coping resources" (Lazarus and Folkman, 1986, p. 6, cit. in Krohne 2002, p3), encompassing cognitive, affective, and conative factors. In this definition, the concepts of 'threat' and 'control', as introduced earlier in this chapter, as central elements for fear of crime, are easily recognisable. In this wider definition, fear of crime and stress thus seem to have much common ground.

As evidenced below, stress theory is hardly mentioned in mainstream fear of crime studies. Fear of crime studies is not the only domain that involves human emotions where that is the case. As Lazarus (1993, p10) observes:

> ….the literature on psychological stress and the literature on emotions have generally been treated as separate. Social […] scientists interested in the emotions are often unaware of a relevant stress literature, and vice versa. Because psychological stress theory is tantamount to a theory of emotion, and because the two literatures share overlapping ideas, the two fields might usefully be conjoined as the field of emotion theory.

This is even more so the case, Lazarus states, now stress theory has progressed from a unidimensional 'activation' perspective to a multi-dimensional perspective, in which stress is seen as a reaction to harm, a threat or a challenge that needs to be overcome, as the result of a transaction between a person and its environment. Stress and fear of crime thus both concern the reaction to an event or situation perceived as threatening to the well-being (or the interests) of an individual. This may be because an event has either already resulted in harm (victimisation in the case of fear of crime) or because it is perceived to have the potential to do so (prospective fear of crime). As we will see below, they both comprise a perception of the harm or threat and the perception of the extent that harm or threat can be coped with ('control'). Both concepts have similar cognitive, affective, and conative dimensions and, as we will see in chapter 5, their functional and dysfunctional manifestations[6]. Seen like this, one would expect that the work of Lazarus would have influenced the study of fear of crime or at least had been referred to frequently. This is even more the case when it is considered that Lazarus' (1966) seminal publication *Psychological stress and the coping process* emerged around the time of inception of fear of crime studies. The pioneering works on fear of crime of Dubow et al. (1979) and Garofalo

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[6] Garofalo (1981, p. 846) already supposed that the conative dimension of fear of crime would lead to a reappraisal of the original threat in much the same way as Lazarus described the process of reappraisal in the stress process.

(1981) do contain some traces of Lazarus' work (without direct references) and Dubow et al. (1979) even explicitly point at the remarkable resemblance:

> Relationships between perceptions and behavior analogous to reactions to crime have also been analyzed in psychological studies of stress. They find that people may cope through direct action or by changing their definitions of the situation. The latter may be particularly likely when the prospects for behavioral coping are poor. These studies describe feedback processes between behavior and perceptions, but similar interpretations of crime perceptions have yet to be investigated. (Dubow et al. (1979, p. 32)

Notwithstanding DuBow's and Garofalo's remarks, stress theory does not seem to have gained much traction within the fear of crime research tradition in the years after that. In work on perceptions of newer threats (and of researchers from countries than the leading countries in fear of crime research), stress theory *is* used however, and in ways that seem to fit the empirics.

A small exploration. In the 130 most cited publications on fear of crime as described in chapter 2 Lazarus work is used and cited in exactly *one* publication. That is not, as one might presume, Gabriel & Greve's (2003) work on psychological perspectives on fear of crime, but a publication by Jackson (2009). A wider sweep of the literature[7] gives reason to suppose that Lazarus' work may not have reached the literature on *traditional* fear of crime but is considered a valuable theoretical perspective more often in the literature on newer fears of crime. In publications on (fear of) terrorism for instance,[8] fear of cybercrime,[9] and in the literature on (fear of) civic unrest, disaster and disorder.[10]

Reviewing the findings, it appears Lazarus' work is referred to only seldomly in the fear of crime literature from Anglo Saxon countries, but is used in publications from other countries, especially Northern-European countries such as Germany and The Netherlands.[11] Could it be that, next to the distinction in 'northern' and 'southern' criminology on fear of crime, a third, 'Rhinelandish criminology' should be distinguished, in which the work of Lazarus has received wider acclaim?

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[7] A search of the database of fear of crime publications constructed within the framework of this thesis, at time of search (October 31st, 2018) containing 5.505 publications, of which 51 contained a reference to Lazarus' work

[8] (de Castella & McGarty, 2011; K. Gross, Brewer, & Aday, 2009; Henry, Tolan, & Gorman-Smith, 2004; Leonie Huddy, Stanley Feldman, Charles Taber, & Gallya Lahav, 2005; Rimé, Páez, Basabe, & Martínez, 2010; Schuster et al., 2001; Shoshani & Slone, 2008)

[9] (Camacho, Hassanein, & Head, 2013; Davis, Randall, Ambrose, & Orand, 2015; Hille, Walsh, & Cleveland, 2015; Ortega, Elipe, Mora-Merchán, Calmaestra, & Vega, 2009; Šléglová & Cerna, 2011; Stohl, 2006)

[10] (Eysink Smeets, Moors and Baetens, 2011; Lindell, 2013; Postmes, Bezouw and Kutlaca, 2014; Magni, 2015).

[11] (cf. Eysink Smeets, Moors, & Baetens, 2011; Eysink Smeets et al., 2010; Haverkamp, 2014; Renner et al., 2009; Rimé et al., 2010; Siesling, Jacobs, & Moors, 2011; Spithoven, 2010; Van Noije & Iedema, 2017).

4.7.1   Lazarus' transactional theory on stress and coping

In Lazarus' work, *cognitive appraisal* of a situation perceived as threatening plays a central role. It is a two-fold appraisal: of the harm, threat, or challenge on the one hand and of the resources there are available to deal with that harm or challenge on the other (again: *'threat' versus 'control').* That appraisal takes place in three steps: a primary and secondary appraisal, followed by a re-appraisal (Lazarus, 1966; Lazarus and Folkman, 1984).

The *primary appraisal* is that of a possible stressor or threat. Has that already inflicted harm or does it have the potential to inflict harm, damage, threat to wellbeing, e.g., a 'loss'? A third potential stressor is whether can one attain a benefit by overcoming a challenge.

Secondary appraisal involves the assessment of possibilities available to manage or deal with the harm or threat and of their effectiveness. (How) is it possible to cope? In other words: by which actions or thoughts is it possible to deal with the harm, threat, or challenge in question? (Lazarus, 1993). The secondary appraisal consists of three 'sub-appraisals': of *blame or credit* (who is responsible for a certain event), *coping potential* (an evaluation of the prospects of behavioural or cognitive actions that will positively influence the outcome) and *future expectations* (the appraisal of the further course) (Krohne, 2002). Ultimately, this leads to a choice of coping strategies.

As the situation evolves – and the person in question deploys their coping strategies – a process of (continuous) *reappraisal* sets in. Is the perceived threat still there, with the same meaning? Or is what was initially considered threatening now experienced as a (just) a challenge or as irrelevant? Reappraisal often leads to the cognitive elimination of the earlier perceived threat, amongst others by way of cognitive dissonance reduction. Lazarus & Folkman (1984) stress that although the different appraisals can be conceptually distinguished, in real life they often occur at the same time, interacting with each other, hindering measurement.

According to appraisal theory (Arnold, 1950) our appraisals cause an affective, emotional response. The emotions involved encompass more than just fear or fright. Lazarus (1991) describes 15 basic emotions: anger, fright, anxiety, guilt, shame, sadness, envy, jealousy, and disgust (as emotions with a negative valence), happiness, pride, relief, and love (positive) and two emotions with a mixed valence: hope and compassion[12].

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[12] Such a broad view on emotions that can result from the appraisal of potential stressors resembles somewhat the debate in fear of crime studies, where various authors have stressed that the concept of fear is a far too narrow definition of the affective dimension of fear of crime (cf. Ditton et al., 1999; Gray, Jackson, & Farrall, 2008). Interesting is furthermore that different emotions can elicit different effects. Lerner *et al.* (1993) for instance noted how fear increased risk estimates and plans for precautionary measures, while anger did the opposite.

Appraisals are influenced by personal and situational factors and can thus lead to different reactions between different people in challenging environments that may objectively be seen as equal. Lyon (2012, p. 9) points to factors as "person's values, commitments, and goals; availability of resources; novelty of the situation; self-esteem; social support; coping skills; situational constraints; degree of uncertainty and ambiguity; proximity (time and space), intensity, and duration of the threat; and the controllability of the threat." After Lazarus, Krohne (2002) mentions motivational dispositions, goals, values, and generalized expectancies as most important factors on the personal side. Predictability, controllability, and imminence of a potentially stressful event are the most relevant situational parameters. These factors strongly resemble the factors as described earlier in in the *psychometric paradigm* of risk.

Coping

Folkman and Lazarus (1980, p. 223) define coping as "the cognitive and behavioral efforts made to master, tolerate, or reduce external and internal demands and conflicts among them". A major distinction can be made here between *problem-focused* or *emotion-focused* strategies, two coping styles that are sometimes addressed as active or passive. When the secondary appraisal has led to believe that available resources will be effective to ward off the threat, the choice in coping strategies tends to be problem-focused: actively taking away the threat, protecting against the threat et cetera. If the secondary appraisal infers available resources are not enough to ward off the threat or damage, the choice for coping strategy tends to be emotion-focused (Carver, Scheier, & Weintraub, 1989). Within these two main coping styles several variations can be distinguished, such as confrontative coping, distancing, self-controlling, seeking social support, accepting responsibility, escape-avoidance, planful problem-solving, and positive reappraisal (Krone, 2002, Folkman and Lazarus 1988, Lazarus 1991). Other authors make different distinctions in coping strategies or styles, such as in the form of *approach* and *avoidance-style*s, encompassing processes of assertiveness or withdrawal depending on personal preferences and capabilities (Anshel, 1996; Anshel & Weinberg, 1999; Roth & Cohen, 1986).

Coping styles can be considered *adaptive* or *maladaptive*. Adaptive coping helps the individual to deal effectively with stressful events and to minimize the risk deriving from those. Maladaptive coping does not have any positive results in stress management (Krohne, 2002). Effectiveness depends on factors such as the number, duration and intensity of stress sources, previous experiences of the individual, available support systems and personal abilities. Neither problem-focused, nor emotion-focused coping can be considered as inherently adaptive or maladaptive. Lazarus and Folkman (1984) suggested that coping will be adaptive when there is a match between the character of the stressor and the form of coping applied to the stressor. "Problem-focused coping applied to changeable stressors and emotion-focused coping applied to unchangeable stressors is proposed to be most adaptive; this proposal is also known as the goodness-of-fit

hypothesis" (Mitchell, 2004, p. 10). Park, Folkman, & Bostrom (2001) however, suggest that meaning-focused coping (i.e., positive reappraisal) is likely to be adaptive, regardless of the perceived controllability of the stressor.

Lazarus (2000) stresses that although cognitive appraisals influence emotions and coping behaviours, the relation between these cognitive, affective, and conative dimensions are not mono-directional. The cognitive appraisals can elicit emotions that are consistent with the meaning given to the threat (Lazarus, 1966, 1991; Lazarus and Folkman, 1984). Emotions can affect thoughts in turn, however, thus influencing (re)appraisal) and coping[13].

4.7.2   On resources and resilience

The transactional theory on stress described thus far focusses on factors and processes that create stress. *Resource theories on stress* focus on the resources that preserve wellbeing in the face of stressful encounters, an approach increasingly called *resilience* (Richardson, 2002). Krohne (2002) here for instance mentions social constructs, such as social support in various forms (instrumental, informational, appraisal, and emotional) and constructs at the personal level, such as sense of coherence (Bandura, 1977), hardiness,[14] self-efficacy (Scheier and Carver 1992) and optimism.

A different perspective on the importance of resources lies in Hobfoll's *conservation of resources (COR) theory* (Hobfoll 1989, Hobfoll et al. 1996). The theory assumes that stress occurs when people experience loss of resources, when resources are threatened, or when people invest their resources without subsequent gain. Resources act to preserve and protect other resources. Self-esteem is an important resource that may be beneficial for other resources. Hobfoll and Leiberman (1987), for example, observed that women who were high in self-esteem made good use of social support when confronted with stress, whereas those who lacked self-esteem interpreted social support as an indication of personal inadequacy and, consequently, underused support.

Following stressful circumstances, individuals have an increasingly depleted resource pool to combat further stress. This depletion impairs individuals' capability of coping with further stress, thus resulting in a loss spiral. This process view requires to focus on how the interplay between resources and situational demands changes over time as stressor sequences unfold. In addition, this principle shows that it is important to investigate not only the effect of resources on outcome, but also of outcome on resources. In my sub studies on the COVID-19 I concluded for instance that it is highly probable that such depletion of resources played a role in the societal dynamics in The Netherlands during the second and third wave of the spread of the virus (on which issue I will return in chapter 8)

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[13] See cf. Arntz et al. (1995): *If I feel anxious, there must be danger*

[14] A combination of internal control, commitment, and a sense of challenge as opposed to threat (Kobasa, 1979)

4.8   Conclusions

The study of fear of crime and related perceptions of security has yielded an impressive body-of-knowledge on the determinants of these perceptions *('what'),* but less insight about *how* these determinants lead to perceptions of security. In this chapter, I attempted to change that situation by proposing a *process-oriented perspective* to perceptions of security. In developing this more processual account of the way perceptions of security form, a major step is formed by the integration of conceptual resources distilled from the literature on the transactional theory of stress and coping. For although there are clear analogies with the cognitive, affective, and behavioural processes engaged when perceiving crime threats, the orthodox literature on fear of crime has thus far largely neglected the overlap between both fields of study. By integrating notions from – especially – transactional theory on stress in the *process-oriented perspective on perceptions of security* I developed in this chapter, a coherent, theory-based narrative emerges on the formation of fear(s) of crime and related perceptions of security. As I will show in the next chapters, already developed - more partial - notions on the formation of fear of crime seamlessly fit, which also applies to the empirical findings acquired over the years. The perspective can thus function as a *backbone* that can carry the body of knowledge as acquired over the years, connecting the 'dots on the map of the formation of perceptions of security' that the body of knowledge holds, in such a way, that a coherent, theoretically founded, outline of the process emerges.

This process-oriented perspective proposes that people use combinations of proximal cues from the (criminal, social, physical, and institutional environment) to form an impression of the distant variable security. This process is refined by social learning and experience, partly conscious and partly subconscious, in which people form 'mental maps' of their environment and the conditions in which threats may be present. In daily life, these cues are mostly processed in an automated, fast, intuitive way, with results that often may seem irrational, but at a closer look contain similar patterns, resulting in a *predictable irrationality.*

Following Lazarus' transactional theory on stress and coping, three forms of appraisal form a central role in the formation-process: a primary appraisal of the *'threat'* and its possible consequences, a secondary appraisal of the resources available to cope with that threat *('control'),* leading to a choice for one or more coping strategies. From then on, a (continuous) re-appraisal starts, to see if and to what extent the threat is neutralized. The choice of coping strategies depends on individual preferences and capabilities as well as on the type of stressor. If that stressor is 'changeable', a problem-oriented coping style may be most effective, if the stressor is not changeable, emotion-based coping may be seen as the style of preference. If coping is successful in reducing stress, a 'goodness-of-fit' exists

and the coping is seen as adaptive. If coping is not reducing stress, the coping style is maladaptive.

The overall-process described in this process-oriented perspective on perceptions of security may seem a rather straightforward process. To complicate things however, the outcome of each of the subprocesses it consists of are *transactional*: thus influenced by the person(s) and context(s) in which these subprocesses take place. This I will address in the next chapter(s).

5   The *transactional* nature of the formation process

5.1   Introduction

The previous chapter proposed a *process-oriented perspective* to fear of crime and related perceptions of security. In that approach, I distinguished three major elements: that of perceiving, of processing and of appraisal and coping. Together, they seem to form a rather straightforward process along which perceptions of security (at the individual level) form. How is it possible then, one might ask, that fear of crime (and other perceptions of security) is considered such a 'slippery research subject' with 'real methodological complexities' (Gray, Jackson and Farrall, 2011b)? An initial answer to that question might be that, depending on the cues that form the input to the process, the same main process leads to different subconstructs at different aggregation levels. The second answer may be even more important, however. Reflecting on the body of knowledge in fear of crime studies as well as on the findings of the different sub studies for this thesis through the eyes of Lazarus' (1993) stress theory and the complexity paradigm, the conclusion is inevitable that the process along which perceptions of security form is just as *transactional* as Lazarus proposed in his theory of stress. This means that perceptions of security must be viewed as the result of a transaction between person and context. It is here that the *slipperyness* comes in – for which I would prefer to use the word *complexity* - as the outcome of that transaction is therefore influenced by the characteristics of both person and context. People have many different traits, preferences, competences, and resources. Contexts vary in similar ways, while the concept of context can be operationalized in different ways as well: ranging from the context of a city, neighbourhood or house, a work-environment, social community, or country, to the context of 'the times we live in'.

Given this diversity in people and contexts, a 'one size fits all' attitude to perceptions of security seems doomed to fail. To come to a fuller understanding of the way perceptions of security form, theory must therefore be able to accommodate for those differences in people and contexts. In the process-oriented perspective on perceptions of security that I proposed, I described how perceiving, processing, and coping form the mainstay of the process in which perceptions of security form. Various disciplines have notions on mechanisms and sub processes that explain how these (sub)processes are influenced by persons and contexts. In the course of my explorative journey, I started to wonder whether these mechanisms did not deserve a more pronounced position in the theory of perceptions of security as well. Seen from a philosophical standpoint: if a specific mechanism is known to influence for instance the process of perceiving in general, it is unsurprising that this mechanism is found to influence the process in which perceptions of security form as well. When it is observed that these mechanisms or sub processes from other disciplines 'fit' findings from empirical studies that are thus far not extensively explained, it becomes even more interesting. In this chapter, I will provide an overview of

mechanisms and sub processes that have to be taken into account where it concerns the *transactional* nature of the formation process. In this exercise, I will use three ingredients: theoretical notions from the disciplines I integrated in the *process-oriented perspective on perceptions* as described in the previous chapter(s); findings from the sub studies; and, findings from the body of knowledge in fear of crime studies and related research domains. The last ingredient means that in this chapter some material will be presented that will not appear as 'new' to those who are familiar with those bodies of knowledge. The intention of this chapter however is *not* to provide just another review of the literature, but to show that the mechanisms and sub processes that I propose are at work in the *transactional* part of the formation process, are consistent with empirical findings in the literature. I divide these mechanisms and sub processes in three different types: (1) *confounding mechanisms* (influencing the subprocesses of perception and appraisal within individuals), (2) *complicating factors* (that influence the outcome of the process depending on persons and contexts) and (3) *complexity (*describing subprocesses and mechanisms that result from the *interaction* between actors, context, and aggregation levels).

5.2 Confounding mechanisms

The process-oriented perspective on perceptions of security proposes that people use (a combination of) proximal cues as probabilistic indicators for the distant variable of security. From a theoretical as well as an empirical standpoint, there is reason to assume that this process involves more than just a rational, technical addition of cues. In the following, I will describe four mechanisms and/or theoretical perspectives that may influence the processes of perceiving and appraisal in the case of perceptions of security.

5.2.1 Heuristics and biases

Kahneman & Tversky (1972) construed how people, in judging the probability of uncertain events such as becoming the victim of crime, do not follow the principles of probability theory. Instead, they use a predictable *subjective* probability, which results in deviations from the objective probability that "seem reliable, systematic, and difficult to eliminate. Apparently, people replace the laws of chance by heuristics, which sometimes yield reasonable estimates and quite often do not". (Kahneman and Tversky, 1972, p. 431). A few of the heuristics that appear to fit often documented patterns in fear of crime are described below.

Risks that 'come easily to mind' are experienced as greater (availability heuristic). Events that are easily retrieved from memory and of which people can easily form an image are judged as more numerous, or more likely, than events that are more difficult to retrieve (Tversky and Kahneman, 1973). This may explain for instance that when people are confronted with visible images of a crime or a terrorist attack, this may lead to an increase

in the perceived risk of such a crime or terrorist attack (Sunstein, 2003; Eysink Smeets, Boot and Sikkens, 2017; Liem, Kuipers and Sciarone, 2018). Patterns that are consistent with this mechanism were found in abundance in the sub studies of this thesis: from an increase of public perceptions of burglary risk following crime prevention communication for instance (Eysink Smeets, Jacobs, et al., 2017); to the perceived increase of violence against the police following an event of such violence of which graphic images went viral via social media (Eysink Smeets, 2019c).

Low-probability risks are overestimated (prospect theory). Regardless of the ease with which an event can be brought to mind, events that objectively have a low probability of occurrence will always be over-estimated, according to Kahneman & Tversky's (1979) *prospect theory.* The probability of an event is not the only driver of the perceived risk, however: so is the utility of that event. Events that represent a 'loss' in comparison with the situation of departure will be seen as having a higher probability than events that represent a 'gain'. In the case of perceptions of security, it concerns mostly perceived 'harm', a perceived loss, therefore.

Events that are considered 'bad' are overestimated. Judgements about risk are influenced by emotions and intuitive judgements about whether something is 'good or bad' rather than a dispassionate calculation of costs and benefits, according to Slovic, who named this the *affect heuristic* (Slovic, Flynn and Kunreuther, 2001; De Smidt and Botzen, 2018). These judgements are holistic rather than analytic, focus on pleasure and pain rather than logic, and on free associations rather than on deductive connections. (Briggs, 2005, p. 29). Fear of crime and related perceptions of security concern mostly events that are considered as 'bad', thus bringing the risk of being overestimated.

A heuristic can be described as a simplified rule (a rule of thumb) to make a decision, judgement, or prediction in a situation of uncertainty. The systematic use of such a heuristic can result in a bias: a more or less 'skewed' perception of a situation or risk.

One of the most consistent, prevalent and robust cognitive biases documented in psychology and behavioural economics is the *optimism bias* (Sharot, 2011; O'Sullivan, 2015)*.* This describes how, on average, people systematically underestimate the chance of negative events in their lives and overestimate the chance on positive events:

> "….we underrate our chances of getting divorced, being in a car accident, or suffering from cancer. We also expect to live longer than objective measures would warrant, overestimate our success in the job market, and believe that our children will be especially talented" (Sharot, 2011, p. R941).

This bias can even take the form of what Will (2005) calls an *immunity fallacy*: a reduced perception of risk, for instance of a motor vehicle injury to their children, which can result

in failing impact of prevention campaigns. Sharot (2011) considers the *optimism bias* to be often functional: it helps us to keep focused on things that matter most in our life, without continuously being distracted by all kinds of risks in our surroundings we consider to be less important. In the part studies conducted in the framework of this thesis I regularly detected a tension between the functionality of the optimism bias for civilians and the desire of authorities to make them more aware of specific, relatively small risks, such as in the case of campaigns on community fire safety (Eysink Smeets, Heijman, & Postma, 2016) or on burglary prevention in situations where the 'objective risk' was relatively low (Eysink Smeets *et al,* 2017).

The *confirmation bias* is the tendency to look for information consistent with our beliefs and values. This also means that if we believe we live in a 'mean world', we are more susceptible to cues that support that belief and less susceptible to cues that contradict it (Kahneman *et al.*, 1974; Kahneman and Tversky, 1977). If our belief is that we live in a *just world* we will do our best to maintain that belief, even to the extent that we will reframe events that to someone else may seem to contradict it (Lerner and Miller, 1978; Hamilton and Lerner, 1982). This may for instance lead to *blaming the victim*, which in turn may result in harmful secondary victimization of the victim, while letting the perpetrator more or less 'off the hook'. This effect was for instance clearly visible in one of the sub studies within this thesis, on *slutshaming* of young women (Schram, De Jong and Eysink Smeets, 2020)

Rosy retrospection is a memory bias, referring to the finding that subjects in retrospect rate events or periods more positively than they rated them during their occurrence (Mitchell *et al.*, 1997). It can manifest itself in for instance the belief that there was less crime or violence 'in the old days' and erode the validity and reliability of survey-items in which respondents are asked to compare the security or prevalence of crime in the present with that at some time in the past. In the sub studies that contributed to this thesis patterns were often observed in which such a bias could be at play, for instance in recollections of violence, crime and safety in the past. In several sub studies surveys – conducted by for instance journalists or trade unions - of specific security problems were analysed in which respondents were asked to compare the contemporary security situation with that of some years before; a survey item that must be deemed unreliable due to -amongst others – the possible effect of this bias (Eysink Smeets, 2019b; Eysink Smeets and Flight, 2020).

Nocebo-effect In laboratory experiments, the perceived intention with which physical stimuli were administered influenced the perception of those stimuli. Pain that was perceived to be inflicted on purpose was perceived as greater than when it was perceived as caused by accident (Benedetti *et al.*, 2007; Atlas and Wager, 2012; Gray, 2012). In earlier studies, I found that this effect formed a plausible explanation for differences in perceived harm of relatively small nuisances, such as in the case of small stones thrown against the window of a resident that was not accepted in a neighbourhood (Eysink Smeets, Bervoets,

et al., 2013). Cuadrado-Gordillo & Fernández-Antelo (2016) came to a similar finding in a study of cyberbullying of youngsters: they found that the perceived intent to hurt formed a major factor in the perception of cyberbullying.

5.2.2 Symbolic interactionism in the process of appraisal

People experience their environment not as a technical addition of cues or objects, but through the *meaning* they are given. This meaning develops in a specific context, by different forms of social interaction. To improve the understanding of this process, the work of various authors points to the value of *symbolic interactionism* (Goffman, 1959). Slovic (2002, Slovic & Weber, 2002) introduced the notion of the *signal value of risk.* He observed that the societal impact of particular accidents or other adverse events went much further than one would expect on the basis of the damage of that accident or adverse event itself, causing a 'rippling effect' of consequences in society (Jungermann and Slovic, 1993; Schmidt, 2004). Innes progressed on the work of Goffman and Slovic and introduced the *signal crime perspective* (Innes and Fielding, 2002b; Innes, 2014*),* noting that:

> ....certain crimes or disorderly behaviours are construed as 'signal crimes' and 'signal events' by individuals and communities. A signal crime / event can be defined as an incident that is disproportionately influential in terms of causing a person or persons to perceive themselves to be at risk in some sense. In effect, the crime or incident is 'read' as a warning signal by its audience(s) that something is wrong or lacking, as a result of which they might be induced to take some form of protective action. In addition, the presence of this signal will shape how the person or groups concerned construct beliefs concerning other potential dangers and beliefs. (Innes and Fielding, 2002*).*

In this way, signal crimes or signal events are seen by members of the public as an indication that the social, physical, or moral order in a specific context is at risk, leading them to alter their thoughts, feelings and/or behaviour. In earlier work, I added that people do not only 'read' messages like this in specific crimes or events, but in specific places and persons as well, which thus can have a similar signal value to members of the public (Eysink Smeets (2008). Several of the sub studies performed in the framework of this thesis once again supported this hypothesis, pointing to the (disproportionate) influence of *signal crimes*, *signal places* and *signal people* on fear of crime in several neighbourhoods (Schram et al., 2021), a professional group (Eysink Smeets, 2019c) or on the (female) users of an urban park (Schram, Eysink Smeets and Van Haalen, 2021). A sub study on fear of crime in the city of Rotterdam showed that the effect of the local security policy - intensified in 2002 – could partly be explained by effectively addressing *signal crimes*, *signal places* and *signal people* (Eysink Smeets, 2016e).

Innes distinguished *strong* and *weak* signal crimes and events: the *strong* ones resulting in the consequences described above just by itself, the *weak* ones resulting in the same consequences not by a single occurrence, but by exposure to a succession of these, conveying the same message in a way resembling Granovetter's (1973) communication theory of *weak ties.* An example of this is the criminality of heroin-addicts in The Netherlands around the turn of the century, committing small property crimes with high frequency, for which they – at that time – could only be held in custody for a short time, after which they – to the anger of the public - immediately resumed their thefts[1] (a subject I will elaborate on more deeply in chapter 8). The meaning of specific events or cues can grow as a form of *multiple cue probability learning* over time. In the case of new events or developments, given meaning still has to develop. Several of the sub studies on 'new threats' gave reason to assume that in such a situation of *tabula rasa*, the framing of events or developments by public leadership, media and/or others may influence the process of appraisal more than in events or developments that have become more common (Eysink Smeets, 2017e; Eysink Smeets and Boot, 2017b).

A phenomenon that is especially relevant in (research on) crime policy are cues meant to signal control (cf. police presence, crime prevention communication) that are read as – or lead to the perception of - cues of threat by the public, thus increasing fear of crime or perceived insecurity (Roman and Chalfin, 2008; Eysink Smeets *et al.*, 2010; Welsh and Rocque, 2014). Weisburd, Hinkle, Famega, & Ready (2011) described this phenomenon as 'backfiring', an in my experience undervalued and under researched phenomenon that I also found in several of the sub studies[2] (and I will elaborate on more deeply in chapter 7).

5.2.3   Mechanisms influencing perceptions of change

Earlier, I mentioned the phenomenon that we can miss changes of cues in our environment if our attention is on another task or issue ('*change blindness'* or '*inattentional blindness').* I also mentioned the skewed perception (of the past versus the present) that can result from the *rosy retrospection bias.* There are more mechanisms at work however, that are related to changes over time that may influence our perceptions of security.

New risks or threats. Slovic found that risks, threats, events that are perceived as 'new' have a greater impact than those that have occurred before and thus can be perceived as 'known'. This is especially the case if these are less understandable and predictable and/or when their consequences are perceived as dreadful (Slovic, 1987; Slovic and Weber, 2002). Within the timeframe of this thesis, a telling example of this effect can be found in the

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[1] Hence they were called 'turnstyle criminals' ('draaideurcriminelen') by the public

[2] (cf. Eysink Smeets and Schram, 2015a; Eysink Smeets, Jacobs, *et al.*, 2017; Eysink Smeets, Foekens and Natasha Sprado, 2018; Eysink Smeets *et al.*, 2019).

panic peak that accompanied the outbreak of the Covid-pandemic in the beginning of 2020, and that I will further discuss in chapter 8 (Eysink Smeets, 2020a). In her *social constructivist* study of fear of crime in a Belgian city, Van Den Herrewegen (2011), observed that an event could result in fear of crime when it was perceived as threatening to one's physical or mental integrity. But the extent to which that actually occurred was dependent on whether that event was experienced as a disturbance of daily routine, by not being (a) predictable, (b) understandable and (c) controllable. A sudden, unpredicted event that could not be understood and controlled resulted in the greatest perception of insecurity. Van den Herrewegen also described that many situations of disorder or crime in the daily life of people are experienced by individuals as 'predictable and controllable', thus resulting in 'routine insecurity', hardly influencing their fear of crime. The psychological process of *habituation* predicts a gradual decrease in response to a stimulus after repeated exposure, especially when people have come to learn that a stimulus is of no consequence to them. A closely related concept is that of *cognitive adaptation* (Taylor, 1983). It has been postulated however that when the prevalence of crime or disorder decreases, people do not perceive a similar decrease, as they attach more weight to the remaining forms of crime or disorder. This (supposed) pattern has been named the *security paradox* (cf. Godfrey, 2018)*.* Up to recently, I certainly saw indications of the validity of this paradox in practice, but I could not find sound empirical support. An experiment by Levari et al. (2018) however gives reason to further reflection on the mechanisms that could be at work here.

> In a series of experiments, we show that people often respond to decreases in the prevalence of a stimulus by expanding their concept of it. When blue dots became rare, participants began to see purple dots as blue; when threatening faces became rare, participants began to see neutral faces as threatening; and when unethical requests became rare, participants began to see innocuous requests as unethical. This "prevalence-induced concept change" occurred even when participants were forewarned about it and even when they were instructed and paid to resist it. Social problems may seem intractable in part because reductions in their prevalence lead people to see more of them. Levari et al. (2018)

5.2.4   Mechanisms influencing perceptions of distant versus proximal threats

In chapter 3, the distinction was made between fear of crime at the personal versus the situational or societal levels and the (overlapping) concept of proximal versus distant threats. These distinctions concern different constructs, in which different cues and sub processes are at work (Eysink Smeets et al., 2010; Eysink Smeets, Moors and Baetens, 2011; Jackson, 2015; Spithoven, 2017; Gouseti, 2018a).

Survey findings often seem to indicate that perceived insecurity seems to increase with distance. Or, put the other way around: that people experience the security in their own personal surroundings as better than in their hometown in general, their country, 'the

world' (Eysink Smeets, 2017a). In one of the sub studies within the framework of this thesis, I reflected on the local security policy of the Dutch city of Dordrecht for the coming years, in support of which the municipality had also conducted a survey among its residents[3]. The survey findings reflect the pattern that is invariably found on of the increase of perceived *in*security with distance[4], as depicted in figure 9.
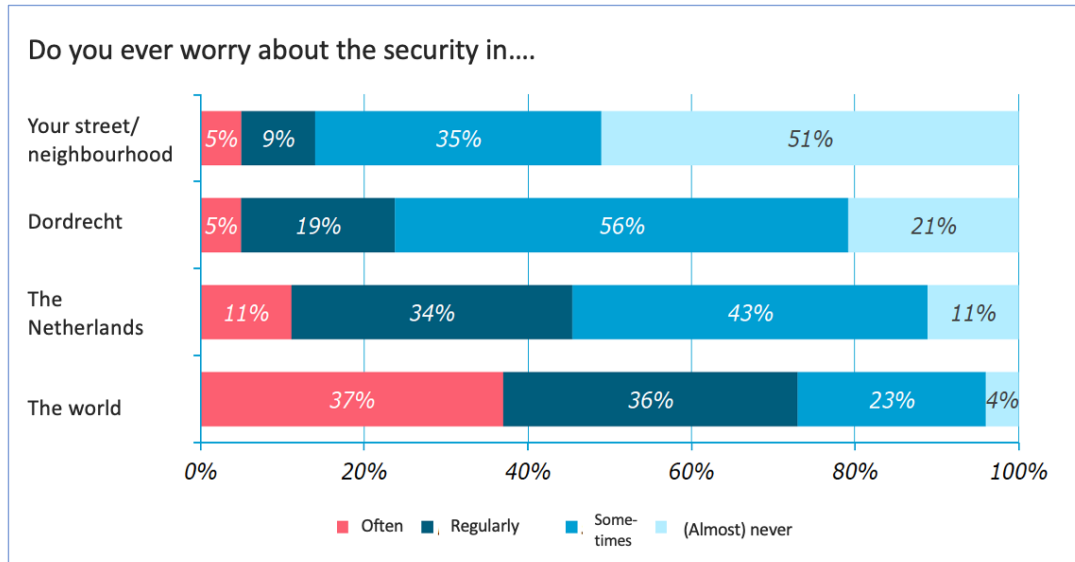
Figure 9 Answers to the question 'Do you ever worry about the security of your street/neighbourhood, city, country or the world' in survey of inhabitants of the Dutch city of Dordrecht in 2017.

Similar patterns are not only visible when studying fear of crime in the strictest sense of the meaning. In their study of fear and anxieties on the 2002-2003 SARS-epidemic in China, Xie *et al* (2011) for instance observed that public fears and anxieties about the disease were far greater in regions not hit by the disease, than in the places that formed the epicenter of the epidemic. They named this pattern the *Typhoon Eye Effect*, an effect they considered similar to the patterns observed on the perceived danger of a nuclear plant or among victims and non-victims of a natural hazard. Mutz (1992, 1998) describes similar patterns on a multitude of societal domains in the U.S., some dating back as far as the 1960s. The combination of these findings makes it plausible that the explanation must be found in (an) universal mechanism(s), instead of a specific mechanism for fear of crime.

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[3] Web based survey among members of the Dordrecht inhabitants panel (n=504) and visitors of the city's website (n=187), total n=691. Data were re-weighed to match general population for age and neighbourhood of residence (Soffers and Van der Aa, 2017).

[4] In the case of this example, an explanation for the observed pattern can of course also be found in the fact that the size of the area the question covers increases with distance as well, thus increasing the chance that 'somewhere' in that area something is observed that is perceived as worrisome. This may indeed form part of the explanation. Still, the same pattern is often observed notwithstanding the exact phrasing of the question.

Mutz' impersonal influence and other mechanisms

In my earlier work on perceptions of nuisance and decay I hypothesized that an explanation could be found in a combination of such (mostly) universal mechanisms (Eysink Smeets et al. 2011, 2010). Following Mutz' (1992, 1998) work on *impersonal influence* I proposed that the distant perceptions of security reflect what people *perceive* of being the risks, threats and fears of *other people elsewhere,* mostly derived from media messages. The result, according to Mutz' (1992), is a perception of a distant community 'situated nowhere on the ground*':* a *symbolic community* that reflects a diversity of societal worries and anxieties and in which possible exceptional experiences are considered as being more common. In my earlier work mentioned above, I pointed out that Mutz's *impersonal influence* may lead to exaggerated perceptions of *distant* insecurity, but that other mechanisms may lead to a decrease of perceived *proximal* threats and insecurity. The need to feel good about one's own surroundings, for instance, which according to Duffy, Wake, Burrows, & Bremner, (2008) leads to a certain *hometown favouritism.* Other examples are *safety by comparison:* the mechanism by which people, when hearing about insecurity elsewhere, experience their own environment as relatively safe (Heath, 1984), or Sharot's (2011) *optimism bias* that leads to the neglect of (smaller) risks in people's daily life. In this way, distal (in)security is exaggerated (and mixed with more general worries about society), while proximal (in)security is played down. In addition, these perceptions form based on a different mix of sources: one's own experience forms a more important source in proximal security, while media form a more important role in the perceptions of distal security.

In both conceptual and empirical publications, a variety of authors have proposed that fear of crime reflects deeper worries and fears about the state of society and/or the direction that society is perceived to be heading (see cf. Bauman, 2000; Beck, 1992; Gray, 2018; Jackson, 2004; McGowan, 2018; Steenvoorden, 2016; Valente & Valera Pertegas, 2018). In a study on both sides of the Atlantic (the Netherlands and the U.S.A.) Van der Bles et al., (2015) found evidence that these worries and fears especially influence *distal* perceptions. Starting from the 'doom, gloom and discontent' that seems to be present in many contemporary western societies, Van der Bles et al., (2015) conceptualized a latent factor *Zeitgeist (Z):* collectively shared ideas about the state (and future) of society. Findings gave reason to assume that this factor Z was especially influential in collective-level perceptions of society, influencing distal perceptions of various societal issues (among them security). This led to an "unrealistically large" (Van der Bles et al., 2015, p. 20) difference between personal and collective perceptions of the same societal issues. The researchers also found that this Z-factor predicted people's interpretation of new information about society presented through news stories.

Construal level theory of psychological distance

A somewhat different angle to the difference in perceptions of security depending on the distance can be found in the work of Jackson and Gouseti (Jackson *et al.*, 2010; Gouseti and Jackson, 2016; Gouseti, 2018a). They showed that the old wisdom in journalism on the newsworthiness of events ("news is the number of deaths divided by distance" (Tiggelaar, 2013)) can be applied to fear of crime as well, as long as that distance is operationalized as *psychological distance.* The concept of psychological distance holds more than just the *geographical distance,* but comprises the *temporal*, *social* and *hypothetical* distance of the event as well (Jackson *et al.*, 2010; Gouseti and Jackson, 2016). Using *construal level theory* Jackson & Gouseti found that public reactions to distal events lead to different fear of crime-constructs, associated with the *psychological distance* of the event. Events experienced as distant in time, space, social relations, and one's own personal situation are mentally represented abstractly ('high level construal'), where events that are experienced as proximal tend to be associated with a mentally concrete representation ('low level construal'). Psychological proximity is related to a higher *intensity* of affect, while the different levels of mental construal are related to shifts in its *valence* (Gouseti, 2018a). Spithoven (2017) following in Jackson & Gouseti's footsteps, found similar support for the role of psychological distance and levels of construal. Building forth on the differences between proximal and distal experienced threats, Spithoven found the same type of mechanism and influences at work as described earlier in this paragraph, which brought him to conclude: "Crime as a nearby experienced threat is cognitively neutralized through a combination of psychological defence mechanisms and avoidance behavior, while crime as a threat at the safe distance of society is amplified by societal discontent" (Spithoven, 2017, p. 237).

5.3   Complicating factors

The confounding mechanisms described above influence the process leading to perceptions of security within an individual. The outcome of that process will differ as well however, depending on the person and the contexts in which that process takes place.

5.3.1   Differences in people

That individual level differences explain a substantial part of the variation in (measured) fear of crime is extensively described in the literature. These include differences related to demographic factors for instance, such as age, gender or ethnicity.[5] Differences in social-

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[5] (see cf. Collins, 2016; Fox, Nobles, & Piquero, 2009; James Garofalo, 1981; Henson et al., 2013; Kujala, Kallio, & Niemelä, 2019; Lagrange & Ferraro, 1989; Nellis, 2009; S. T. Ortega & Myles, 1987; Russo, Roccato, & Vieno, 2011; Tulloch, 2000; Walklate, 2018).

economic position, social role, health or lifestyle have also been found to be important[6] Furthermore, differences in personal experience have been highlighted, such as earlier victimization,[7] and differences in personality, preferences and attitudes[8] under which the literature for instance mentions a sensitivity to risk or sensitivity to stress, perceived control or perceived self-efficacy and the need for 'order'.[9] How do these findings fit the perspective of the process-oriented approach to fear of crime, however? I propose two ways.

First, individual level differences influence available cues and the selection of those cues. The differences in routine activities for instance between an older person and an adolescent for instance will lead to different cues in their environment. The salience of these cues will differ as well (Tremblay, Cordeau and Kaczorowski, 1993; McCombs, 2002), thus leading to a different combination of cues that forms the 'lens' through which people perceive their security.

Second, the appraisal of these cues and the applied coping style will differ between people, depending on their characteristics. Lazarus argued that personal traits and other factors lead to differences in quality, intensity, or duration of elicited emotions, and in applied coping strategies, in environments that can be considered as objectively equal. Among these factors, Lazarus mentions motivational dispositions, goals, values, generalized expectancies, coping preferences and coping resources (Lazarus, 1993).

Seen from the perspective of the process-oriented approach to fear of crime, the often-debated *fear-victimisation-paradox* (cf. Vanderveen, 2006) must be considered theoretically flawed. The implicit assumption underlying the (assumed) paradox is that fear of crime is the result of the primary appraisal, thus neglecting the importance of the secondary appraisal and of the coping that may occur in reaction to both. Of course, that objection has been made in the literature before, but in the process-oriented perspective on fear of crime it is directly in line with theory as well. This perspective also draws attention to the 'narrow' definition of the cues leading to an appraisal of threat, as in the fear-victimization paradox this is just victimization of crime. As various authors have already argued, studies into women's fear of crime showed their fear of (sexual) crime was better explained by small signs in social interactions that they interpreted as a sign of risk or harassment and/or of obtrusive behaviour of strangers (Stanko, 1993, 1995; Scott, 2003; Vera-Gray, 2016). In one of the sub studies, the study of perceptions of security in an urban

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[6] (Hagen, 2014; Holman & Silver, 2005; Pantazis, 2000; M. Stafford, Chandola, Marmot, Tarani, & Marmot, 2007; Williams, Ghimire, & Snedker, 2018)

[7] (Garofalo, 1979; Hanslmaier, 2013; Hedayati Marzbali, Abdullah, Razak, & Maghsoodi Tilaki, 2012; Henson et al., 2013; Stafford & Galle, 1984; Zhao, Lawton, & Longmire, 2015)

[8] (Jackson *et al.*, 2006; Guedes, Domingos and Cardoso, 2018)

[9] (Killias and Clerici, 2000; Jackson, 2002, 2009; Allik and Kearns, 2017; Van Noije and Iedema, 2017; van Schaik *et al.*, 2017; Guedes, Domingos and Cardoso, 2018; Pooser, Browne and Arkhangelska, 2018)

park in Rotterdam, we came to a similar conclusion once again: fear of crime of users of this park was predominantly experienced by women, reflecting the *shadow of sexual assault*-hypothesis*,* fed by an array of small cues perceived in the park (as well as one *signal crime)* (Schram, Eysink Smeets and Van Haalen, 2021)

Similar objections can be made to the *policing paradox:* the repeatedly found phenomenon that an increase in police activities did not lead to a decrease in fear of crime (sometimes even to an increase). As noted before, police activities can be interpreted by the public as a cue of control, but as a cue of threat as well. That can be *indirect*, when police presence is experienced as a sign of crime or disorder (Innes and Fielding, 2002b; Fallshore, Rep and Huisman, 2007). Unfortunately, we must consider that some groups in society perceive police presence as *direct* threat to their security as well. The killing of George Floyd in 2020, followed by the massive protests in many American cities has brought that once again to the foreground. In the literature other examples of similar experiences can be found however, especially of marginalized groups, in more countries than the U.S. alone[10]. That gives the *policing paradox* a second meaning, as the organization that is intended to provide a cue of control, for specific groups turns out to form a cue of threat.

5.3.2   Differences in roles

A more specific difference in security perceptions between people is grounded in their specific role at a given moment. A Dutch study showed that what people consider the most important proximal threats to their security differs with the role they play at different stages in life, in which for instance parents perceive different risks as being serious, depending on the age of their children (Van Aken, Klein Wolt and Den Hertog, 2008). Another difference in roles is that between professionals (security professionals, administrators, researchers) and the general public. As observed before, in the professional debate the public fear of crime has often been described as *irrational.* Earlier in this chapter I described how this may be the case, but that due to the mechanisms and processes at work they can best be described as *predictably irrational* (Ariely, 2008). The *irrationality*-debate has another important element, however. By stating that public perceptions of security are irrational, professionals implicitly, often explicitly too, say that *their* perceptions of security are rational and correct. In the Dutch language, this is reflected in the distinction between *objectieve veiligheid* ('objective security') and *subjectieve veiligheid* ('subjective security'). Objective security encompasses the risks, events, crimes that exist in real life, whereas subjective security is what is experienced, and perceived. In the case of fear of crime, professionals often see crime statistics and other forms of registration as the indicator of *objective security*, thus negating the multitude of biases that distort the

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[10] (see cf. Becerra, Wagaman, Androff, Messing, & Castillo, 2017; Brunson & Miller, 2006; Cohen, 2017; Epp, Maynard-Moody, & Haider-Markel, 2017; Messing, Becerra, Ward-Lasher, & Androff, 2015; Sarang, Rhodes, Sheon, & Page, 2010; Wachholz & Miedema, 2000)

registrations in use. Here I agree with the *realists,* who qualified this line of reasoning as naïve and elitist (Matthews, 2014). It would be more deserving to define both perspectives as subjective or perceived, only differently constructed.

The process-oriented approach to perceptions of security can help us to understand these different ways. As I observed once again in several of the sub studies performed within the framework of this thesis, professionals and the public use different cues to form the lens through which they perceive security (in the same situation). As described before, for the public socialization, their own experience, social talk and media-messages form their main sources. Professionals rely more on statistical data, complaints or reports, and often have no, or far less, personal experience in the specific situation and miss out on social talk within the population concerned[11]. This leads to a completely different 'mix' of cues. Several sub studies(Eysink Smeets, 2016e; Eysink Smeets, Van 't Hof, et al., 2017b; Eysink Smeets, Van't Hof, et al., 2017; Schram, Eysink Smeets and Hendriks, 2021; Schram, Eysink Smeets and Van Haalen, 2021) provided indications as well that – where it concerns perceptions of security of the public - professionals and public process the information from their (lens of) cues in different ways. The professionals with system 2 (conscious, rational), members of the public with system 1 (automated, subconscious).[12] This leads to systematically different constructs, maybe best described by adapting John Gray's (1992) famous book on the difference between men and women: *professionals are from Mars, members of the public are from Venus.* An interesting exception is the situation where it concerns perceptions of the security of professionals themselves, however. In sub studies on police perceptions of violence against the police or of riots and disturbances during Dutch New Year's Eve I observed how these perceptions appeared to form in the more associative way that is normally confined to the general public - resulting in a perceived increase of violence - while the more rational, data-driven perspective showed a different trend (cf. a stabilization or decrease).[13] It indicates that 'personal involvement' influences perceptions of security, an observation that is in line with Lazarus' transactional stress theory as well.

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[11] This is the reason by the way that I never solely use statistical data when researching perceptions of security in a specific situation, I always have to see the environment in question myself, talk to members of the public in question and see, feel, hear and smell their environment for myself as well.

[12] My experience is as well that professionals focus on the primary appraisal (threat), while having less attention to the secondary appraisal. Although here I see some shifts lately in Dutch practice, where the concept of 'resilience' is receiving wider acclaim.

[13] (cf. Eysink Smeets, 2019c). At various times during my research, this phenomenon even led to the situation where the police corrected their (media)messages on a reported increase of violence after I publicly came todifferent conclusions on the basis of the same-police-data (see cf. Banach and Van Hulst, 2021).

5.3.3   Differences in the *situational* context

In the literature on fear of crime, much attention has been paid to the neighbourhood, especially where it concerns the influence of social (dis)order, social composure, and social cohesion,[14] or that of the physical characteristics of the neighbourhood.[15] From the perspective of the process-oriented approach to fear of crime, it must be assumed that the neighbourhood provides cues of threat and of control and that the appraisal of these cues will be influenced by social interaction and neighbourhood culture. That such cues matter is one of the mainstays of fear of crime research. Less well documented however, is that their influence varies greatly depending on the specifics of the neighbourhood. Swatt *et al* (2013) express this even more starkly: that the implicit assumption often is that the relationships between key variables do not differ between neighbourhoods, but that evidence is growing that contradicts that assumption, however. Both from an empirical and theoretical standpoint, it seems plausible indeed that the way different factors or cues interact and influence security perceptions are far more dependent on the specifics of the situational context than is often assumed. Swatt *et al* (2013) observe a significant heterogeneity in the relationship between various key factors between neighbourhoods and Taylor *et al* (1985, p. 261) remark that "physical impacts are conditional (i.e., dependent on overall neighbourhood context and how residents explain the causes of surrounding physical conditions)". Walklate & Evan (1999) suggest that a widely researched type of neighbourhood, the inner city areas, have been treated as being more or less the same, thus missing the finer processes at work that can result in substantial differences. Kleinhans & Bolt (2014) come to a similar conclusion in their (qualitative) study of six-inner city neighbourhoods. They suppose that that the predominantly quantitative studies up to then were less adequate to clarify the relevant micro social processes at stake.

Over the years of studying fear of crime in neighbourhoods, I had a similar experience. Therefore, I conducted all the neighbourhood level sub studies using 'mixed methodology', mostly consisting of secondary analysis of available data, interviews with inhabitants and professionals, observation and media-analysis. This certainly showed how, in ostensibly similar neighbourhoods, completely different micro-processes were at work that influenced perceptions of security substantially. These micro-processes would not have been found if a purely quantitative research method had been followed. These studies gave reason to presume as well that the intricate micro-processes described above do not only lead to differences in the *strength* of the effects of different factors or cues, but also in their *direction* and/or *valence.* This could even lead to opposite effects than expected. For instance, in some neighbourhoods where crime control activities of the police and the

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[14] (cf. Hartnagel, 1979; Garofalo, 1981; Liska, Lawrence and Sanchirico, 1982; Pate *et al.*, 1986; Taylor and Hale, 1986; Box, Hale and Andrews, 1988; Taylor and Covington, 1993; Gibson *et al.*, 2002),

[15] (cf. Taylor, Shumaker and Gottfredson, 1985; Skogan, 1986; Fisher and Nasar, 1992; LaGrange, Ferraro and Supancic, 1992; Rountree and Land, 1996; Nasar and Jones, 1997; Koskela and Pain, 2000; Kuo and Sullivan, 2001).

municipality - intended to reassure the inhabitants of the neighbourhoods - resulted in decreased perceptions of security, as inhabitants became aware of illegal activities they had thus far not been aware of (cf. Schram, Eysink Smeets and Hendriks, 2021)

In earlier publications, based upon a combination of empirical findings and conceptual work, I proposed that crime control activities *diminished* fear of crime in situations where people were aware of the crime problems on which these activities were aimed and perceived these as serious and problematic, thus perceiving the crime control activities as congruent with their perception of problems (Eysink Smeets et al., 2010; Eysink Smeets and Meijer, 2013). The same activities could however *increase* fear of crime in situations where these crime problems where not 'seen and felt as worrisome', thus making the crime control activities incongruent with the perception of the criminal events. Support for this *congruency hypothesis* was not only found in the sub studies mentioned above, but, amongst others, in a study on fear of terrorism that I will discuss in chapter 6. Schultz *et al* (2009) used the framework of Cialdini et al.'s (1991) Focus Theory of Normative Conduct to come to similar findings; they concluded that the same cues could be given an 'opposite' meaning by the public, depending on the context in which the information was presented.

5.3.4   Differences in the macro context

Perceptions of security cannot be seen apart from the macro (socio-cultural and socio-economic) developments in the society in which these perceptions form. Above, I already mentioned that a variety of authors suppose that fear of crime and related perceptions of security reflect deeper lying worries and fears on the state of society and/or the direction that society is perceived to be heading. The fluidity of society captured by Baumann's (2000) *liquid modernity* for instance has made contemporary life far less predictable and more uncertain than before. Technological advancements not only brought economic progress, but also a multiplicity of new – often hard to understand and hard to control – risks to our life, while at the same time trust in institutions is eroding (Beck, 1992). In reaction to these and other developments a *culture of fear* has developed (Furedi, 1997, 2002; Glassner, 1999)*,* while our desire to decrease the risks brought a *culture of control* (Garland, 2001), a *securitization of society* (Schuilenburg, 2017) and/or the growth of a *prevention society* (Pitch, 2007; Peeters, 2013, 2015).

Within the wider literature, Hirtenlehner & Farrall (2013) speak of fear of crime as the consequence of, and a code for, broader social anxieties, of which the origins "are usually traced to fundamental social and global transformation processes characteristic of late modernity" (ibid., p. 1) The authors distinguish two distinct perspectives:

> "a generalized insecurity approach, where free-floating, amorphous anxieties about modernization are directly projected onto crime, and an expanded community concern approach, whereby abstract anxieties about social change require the

prism of local conditions to convert into fear of crime" (Hirtenlehner & Farrall (2013, p. 1).

Others use different terms to describe similar drivers or outcomes, such as Giddens (1991) "ontological insecurity" or McGowan's (2018) "ubiquitous umbrella of 'uncertainty'". McGowan (2018) warns that, although these 'broad' perspectives have merit, they could obscure the actual problem(s). A problem that, in his view, could very well be summarized as *inequality.* For that position, there is certainly empirical support. Certain population groups feel less safe due to their social and economic position, and societies with greater income equalities and/or less social protection and social expenditure see higher levels of fear of crime, independent of population structure and victimization rates (Hirtenlehner & Farrall, 2013; Hummelsheim, Hirtenlehner, Jackson, & Oberwittler, 2010; Pantazis, 2000; Vauclair & Bratanova, 2017; Vieno, Roccato, & Russo, 2013). Seen in this way, perceptions of insecurity are presumed to be founded upon a deeper perception of *vulnerability*, a perception that in recent decades has also taken the form of a generalized *discontent* (Hirtenlehner & Farrall, 2013). From this perspective, it may not surprise that in at least two sub studies - a study on fear of crime in the city of Rotterdam (Eysink Smeets, 2016h), and a study on public reactions to the influx of refugees in The Netherlands (Eysink Smeets & Boot, 2016b, 2017a) – I observed an overlap between perceptions of (in)security and perceptions of (in)justice. Overseeing the literature, *rapid and unpredictable change* may be seen as another key component of the 'bottom layer' that perceptions of security build upon.

The question that remains of course is how these factors 'fit' in the process-oriented approach to fear of crime and related perceptions of security. To me it seems a plausible line of reasoning that these 'broader' anxieties, worries and fears more or less 'prime' us, thus making us more sensitive to cues that can be associated with threats or risks on the one hand, and to cues that may indicate loss of control on the other. In this line of reasoning the macro trends therefore would not only be fear and anxiety-invoking in themselves but reshape the lenses through which we make our estimations of the *distal variable* of security and influence our appraisals of what we perceive. In this way, the *mechanism* at work would take the shape of a *bias* by which deeper lying, ontological fears, worries and anxieties influence our fear of crime and related perceptions of insecurity. The outcome is an effect that could be called *ontological fear resonance*.

Social moods

McGowan (2018) cautioned that more precision is needed about the 'broad anxieties' that perceptions of security build upon and urged to be more precise on the problem(s) that lie beneath it. I wonder though if there is not another perspective that may increase the understanding of that underlying layer. In the literature on these broad anxieties the term 'discontent' is often mentioned (Baumann, 1997, Dammert & Malone, 2003), just as a

certain 'fear of the future' (cf. Valente & Valera Pertegas, 2018). I referred earlier to the work of Mutz and van der Bles et al. (2015) who found that the (distal) state of affairs in very different domains of society were perceived by the public through a shared 'gray veil', reflecting a collective global-level evaluation – in this case ostensibly negative - of the state (and future) of society. Steenvoorden (2016) came to a similar observation but distinguished two separate phenomena: *societal discontent* (based on perceptions of the 'precarious' state of society) and *societal pessimism* (a concern that society is heading the wrong way).

Reflecting on these observations, I wonder why the concept of *'(social) mood*' is so rarely used in the literature on fear of crime and related perceptions of security. Social mood (sometimes addressed as 'public mood') is a concept from *socionomics*, that early proponents of the discipline operationalized as a "diffuse affective state, having distinct positive and negative components, that citizens experience because of their membership in a particular political community" (Rahn, Kroger and Kite, 1996, p. 29). Olson (2006) uses a much shorter definition: "the collective mood of individuals", while Prechter (1999) focuses on "the way a group feels about the future". Social mood 'emerges' in a complex system as a result of the interaction of individuals, each with their own individual moods.

Social mood can be observed at different levels of aggregation: from the mood in society to the mood in an organization or "of an audience which jointly attends to a public performance" (Ringmar, 2017, p. 453). And while the macro-trends tend to be described in terms of a more or less 'negative' character, social mood theory points to the existence and relevance of negative and positive moods. An interesting angle in social mood theory is that it contradicts traditional thinking on the influence of exogenous shocks to a system. That is the "hard part" of the social mood framework, as Ilmola & Strelkovsky (2015, p. 276) describe it: it poses that social mood is not influenced by exogenous shocks, but that social mood influences the reaction to those shocks. As an illustration Ilmola & Strelkovsky (ibid.) ask:

> …what will be the impact of social mood on the feedback loops of the social system on an Internet collapse, ISIS expansion and failures of a fund management giant? According to social mood theory […] if the mood is positive (=expectations are positive) people will try to adapt and improvise in order to help others. Young men prefer to study instead of go to war. People will not lose their trust in the financial markets so fast without additional consideration. If the mood is negative, the Internet collapse will cause riots, young men who lost their faith in the future will join the ISIS troops, everyone panics when financial markets suddenly show surprising behaviour[…]. Shocks can push a social system to chaos (riots, panics, wars) if there are no constraints, trust and positive social mood is such a constraint" (Ilmola & Strelkovsky, 2015, p276).

It seems plausible to expect different societal reactions (cognitive, affective, conative) in a situation of 'content' and optimism versus one of discontent and pessimism. That effect may also be expected on perceptions of security. In an empirical study of the relation between social mood and societal perception of risk in China, Dong *et al* (2015) found that indicators of social mood predicted societal perceptions of risk. In a study of (converging) trends in indicators of political trust and consumer confidence Walle & Kampen (2004) found that these indicators contained more than a mere evaluation of the political or economic situation, but were reflections of a social mood, thus explaining their convergence. In a similar way, Rahn, Kroger and Kite, (1996) argue:

> …..that public mood functions as an additional consideration in the formation of attitude responses. In our test of this idea, we find that public mood is quite influential in shaping attitudes, even when controlling for other causes. (Rahn, Kroger and Kite , 1996, p29)

Just after I finished my sub study on fear of crime in the city of Rotterdam, a 'positive vibe' developed in that city due to the opening of some iconic buildings and the selection as 'one of the ten best cities to visit in 2016' by Lonely Planet. In the year after, a survey of the municipality showed that confidence of the inhabitants in the future of the city had suddenly risen to a record level, while indicators such as trust in local government and perceptions of security had substantially improved as well.[16] Could it be that we saw here a form of *mood resonance* on perceptions of security in the city, just as the proponents of socionomics predict? I observed a similar pattern in the sub studies on (perceptions of) violence against the police. Such violence was more and more reported from within the police, at the same time that surveys showed a significant decrease of police morale, attributed to the formation and functioning of the 'new' national police force (Reputation Institute, 2018). I considered it a serious option that this decrease of morale at least formed *part* of the explanation of the perceived increase of violence, again in line with what *socionomics* proposes (Eysink Smeets, 2019c).

5.3.5   Differences over 'time'

Earlier in this chapter I proposed that the way we select and appraise the 'proximal cues' to esteem the distal variable of security is influenced by socialization, experience, social talk and media-messages. In this process memory plays a role, and mental maps are formed. Overseeing the changes in the last decades in macro-trends, in crimes and in for instance the media-landscape, I consider it plausible that this has also led to changes in security perceptions, altering both the meaning of security and the way perceptions of security form, for instance between generations. Simon (2018) for instance wondered if crime and fear of crime might have different meaning in and for different generations. He observes

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[16] While veering back to a lower level again within just a few years (De Graaf, 2020).

that over the years a change has taken place in fear of crime as a discursive complex in policies and media, in which it has lost its character of driving political force and in which the new generation of the millennials seem to experience crime in a different way than the baby boomers did before them. In the sub studies on longitudinal trends in the prevalence of fear of crime, I had to conclude that longitudinal surveys on fear of crime are hardly tested for temporal invariance, which could shed more light on this issue. I will come back to this issue in chapter 7. In a short exploration of public perceptions of white-collar crime and organisational crime, I found indications that in recent years the perceived seriousness of these types of crime had increased, due to a shift in perceptions of the perpetrators: a change from *people like us* ('that of course do not commit reprehensible acts') to *people different from us* (that 'certainly do such reprehensible acts'). Such as bankers, in which confidence starkly decreased in and after the financial crisis (Eysink Smeets and Zoutendijk, 2018a). In a sub study of violent crime in The Netherlands, I found as well that the meaning of 'violence' had shifted in recent years, especially due to institutional policies to reduce (perceived) aggression against their staff. I will come back to this issue in chapter 8.

5.4   Adding complexity

From the above, the impression could have arisen that perceptions of security form in a *complicated* process, in which many different factors, mechanisms and sub-processes are at work. In complexity science, the term complicated is used when a system may have many different parts, but each of these interact in a similar and predictable way (Cilliers, 1998). Like an intricate machine or a clock, that perhaps may consist of an overwhelming number of parts, but of which the working can be understood and exactly predicted if one just took enough time. The question arises whether that is the case in the formation of perceptions of security as well. The number of relevant (f)actors is not only very large but these factors interact, resulting in multidirectional causal relations and feedback loops, and thus in a "combinatorial explosion" of possible relations (Pieters, 2010, p. 76). While these relations are not always linear, but non-linear as well. With this, we enter the realm of *complexity*. An important part of my line of reasoning is therefore to look at the formation of perceptions of security in society from the perspective of complexity and complexity science and from its paradigm of *complex adaptive systems* in particular (Holland, 2006, 2019).

As described in chapter 1, the essence of a complex adaptive system is exactly the multitude of (f)actors described above, in a dynamic network of interactions, with feedback loops, non-linear relations and causal cascades, self-organizing and adaptive. Furthermore such a system has properties that arise in the system as the result of interactions taking place at a lower level (Turner & Baker, 2019). An example of that is the social mood described in the previous paragraph, arising from the interaction of individual moods of people in society (Barsade and Gibson, 2012). The dominant quantitative, cross-sectional

research tradition in fear of crime studies is not well-equipped to accommodate non-linear relations or feedback loops. Still, the literature contains many indications that these do play a role in the formation of perceptions of security. Various authors pointed to the existence of non-linear relations between personal factors and fear of crime for instance,[17] to the existence of thresholds,[18] and to the relevance of intra-personal feedback loops.[19] Others described feedback loops in the situational context[20], sometimes taking the form of a 'causal cascade',[21] or presume feedback loops in the interaction with institutions such as police, politics and press.[22] As Lee (2007) pointed out, even fear of crime research itself could not escape such a feedback loop, as the widespread use of crime and victim surveys,

> ….in conjunction with the misuse of crime statistics by the media and politicians, and the politicization of 'fear of crime' through 'law and order auctions', […] helped facilitate of a 'fear of crime feedback loop […] : the perpetuation of fear of crime by the media by 'primary definers' such as politicians, who perpetuate the fear of crime by drawing upon the very tools to measure and understand it (Lee and Ellis, 2018, p156).

Seen from this perspective, the processes and mechanisms that form perceptions of security are fed by the continuous and intricate interplay of *peers, professionals, policy, politics* and *press.* Each of these provide cues of threat or of control, and each influences the way the (combination of) cues are perceived, appraised, re-appraised and coped with. Seen from the viewpoint of for instance police, government or politics, perceptions of security are not a phenomenon that form 'out there', independent of the actions of these institutions. On the contrary: the actions and words of these institutions form an integral part of the way public perceptions form. Here again a causal loop can be distinguished, as the institutional actions and words are influenced by the perceptions of security of and within those institutions, which in turn are influenced by (what is perceived to be) the perceptions of security of the public (Gray, 2018a; Gross *et al.*, 2009). Talking about the chicken and the egg….

The actors in the 'complex adaptive system' of society do not have the same interests where it concerns perceptions of security. For some, such as the police, *mitigating* perceptions of insecurity may be part of their mission. Achieving success is not always easy, because influencing perceptions of security is for instance perceived as being (too) complex (Spithoven, 2014); interventions or policies to achieve this aim are based upon an overly-

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[17] (Greve, 1998; Whitley and Prince, 2005; Olson, 2006; Shirom *et al.*, 2008; Tseloni and Zarafonitou, 2008)

[18] (Innes and Fielding, 2002b; Jackson *et al.*, 2009)

[19] (Garofalo, 1981; Jackson, 2002; Jackson & Gouseti, 2012).

[20] (Liska & Warner, 1991; Markowitz, Bellair, Liska, & Liu, 2001b)

[21] (Skogan, 2015; Paul Slovic, 2002b)

[22] (Rothe & Muzzatti, 2004; Bridenball and Jesilow, 2005; Lee, 2007; Weisburd *et al.*, 2011; Huhn, 2018; McGowan, 2018)

simplistic policy theory (Lub and De Leeuw, 2019; Schram, Zoutendijk and Eysink Smeets, 2019) and/or Simon's (1955) bounded rationality stands in the way of foreseeing *distal* effects of interventions . (Bridenball & Jesilow, 2005; Norris & Kaniasty, 1992; Weisburd et al., 2011). As mentioned before, such limitations were observed as well in several of the part-studies,[23] leading to a *prevention- or participation paradox* (Eysink Smeets, 2015a)*: where* stimulating public participation in crime prevention, intended to improve perceptions of security, in practice achieved the opposite effect.

Other actors may even have an interest in *increasing* perceptions of insecurity, for instance for political, institutional, or commercial reasons. 'Fear sells', as the issue here can be summarized. This can be attractive to improve electoral results, in the competition for funds between institutions, or in the sale of technologies or services that may protect against threats. In recent years, it has become painfully clear that we must take another drive into account as well: the attempted destabilization of societies within the geopolitical powerplay between nations or as the aim of terrorists*.* I will come back to such *instrumental use* of perceptions of security in chapter 7.

The role of media and social media

In the Netherlands, a saying of the late professor in criminology Willem Nagel has almost become popular wisdom: "if you are afraid of crime, you'd better read another morning paper" (Van Vree, 2010). This suggests a strong influence of media on perceptions of security, a suggestion that can often also be heard in popular debate. Of course, media form an important source of information in contemporary society, especially on issues or events that happen elsewhere. Gerbner & Gross's (1976) cultivation theory suggested that media consumption led to a 'mean world view' in a direct, linear way: the more people were exposed to media messages, the more their perceptions would align with the issues presented in the media. Later studies certainly found correlations between media consumption and perceptions of security, but in a far less mono-dimensional and linear way. The personal relevance of crime and the resonance of news reports, the amount of attention an individual pays to the news, the availability of other sources and the credibility of the medium were amongst the factors that had to be taken into account as well (cf. Boulahanis & Heltsley, 2004). Others observed that the causal relation is bi-directional, as more fear of crime leads to more media consumption as well (Custers & Van den Bulck, 2011; Minnebo, 2000). Hale (1996) suggested that if media had a cultivating effect on fear of crime, it would be on general fear, not on personal fear, an effect also suggested by the work of Mutz (1992) mentioned before. Other authors found that local crime news eroded perceptions of security more than news on crime in general (Hanslmaier, 2013; Heath, 1984). Reports of distant crime were even observed to have a reassuring effect, due to '*feeling safe by comparison'* (Heath, 1984; Sacco, 1995)*.*

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[23] (cf. Eysink Smeets, Jacobs, Foekens, Maessen, & Schram, 2017b; Eysink Smeets et al., 2019).

Reflecting on the literature, it is beyond doubt that (some) media messages have (some) effect on (some forms of) perceptions of security , but the exact causal pathways are still far from clear however and must be deemed far from linear (Chadee and Chadee, 2016; Spithoven, 2017). That media messages can have an effect in the form of *agenda setting*, *framing* and *priming,* especially in the case of new threats or other new developments, is widely supported however (Jackson, Allum and Gaskell, 2006; Scheufele and Tewksbury, 2007; Rowe, 2012). Examples of such influences have been documented in for instance the social construction of threat from certain population groups (Chiricos and Eschholz, 2002), a skewed perception of specific crime events (Denzin, 2007; Stratton, 2015), and, mostly described around terrorism, in an atmosphere of enlarged risk perception, moral panic or 'culture of hysteria' (Rothe & Muzzatti, 2004; Nacos, Bloch-Elkon and Shapiro, 2007; Powell, 2011).

Seen from the process-oriented perspective on perceptions of security, relevant media messages are not just those about crime or other threats and risks, but those that contain cues of 'control' as well. They do not only include messages on specific events or developments, but also on reactions to these events or developments from institutions, politicians, academics, the public. The words, actions, or frames they choose will influence the messages of the media (see cf. Ruigrok, van Atteveldt, Gagestein, & Jacobi (2017) and should therefore be included in the equation where it concerns the influence of the media on perceptions of security. A framework that allows for these diverse influences - and that therefore fits surprisingly well in the paradigm of complexity that is used in this paragraph - is the social amplification of risk framework (Kasperson *et al.*, 1988). This framework focuses on the question why some – technically seen – 'minor risks' often elicit strong public concerns and substantial impact on society, surpassing other, again technically seen, 'greater risks'. That effect cannot be attributed to one single reason, as:

> …hazards interact with psychological, social, institutional, and cultural processes in ways that may amplify or attenuate public responses to the risk or risk event [….] Amplification occurs at two stages: in the transfer of information about the risk, and in the response mechanisms of society. Signals about risk are processed by individual and social amplification stations, including the scientist who communicates the risk assessment, the news media, cultural groups, interpersonal networks, and others. Key steps of amplifications can be identified at each stage. The amplified risk leads to behavioral responses, which, in turn, result in secondary impacts (Kasperson *et al.*, 1988, p. 232).

With this, the influence of the media on perceptions of security can be seen in a far more intricate way than in the linear 'injection needle' line of thinking that seems to be so

popular in public and often professional thinking[24]. That is even more the case, now social media are transforming the media and communication landscape so drastically and rapidly (Heath, Patel, & Mulla, 2016). Social media bring events from all over the world on our smartphones in a matter of seconds (decreasing psychological distance), illustrated by graphic visuals and videos (increasing affect), with less journalistic checks (which can both decrease as well as increase credibility) and often without (other) filters (which can confront people with confusing or even hurtful messages). Social media has made peer-to-peer communication much easier as well, thus facilitating reactions of the public. Because of these characteristics, it seems reasonable to expect that the proliferation of social media has had a profound effect on perceptions of security as well. Up to know, research into those effects in for instance fear of crime studies is scarce, however. [25]

5.4.1   The concept of *emergence* applied to perceptions of security

Following the complexity paradigm, phenomena at a lower level of aggregation result in new properties of the complex adaptive system at a higher level. Seen from this perspective, collective forms of perceptions of security, such as moral panics or a culture of fear could be viewed as 'emerging properties' of a system, arising from perceptions of security at the individual level. While in turn - and again in a feedback loop - the properties at the higher aggregation level influence the properties they arose from. In the case of perceptions of security this means that perceptions of security at the individual level, formed in the complex interaction in the CAS as described in the previous paragraph, result in collective forms such as moral panics, a culture of fear and securitization, which in turn influence the perceptions of security at the individual level.

Let me explore the phenomenon of the moral panic as an example. As described in chapter 3, a moral panic can be seen as a collective perception of insecurity, characterized by an exaggerated or distorted perception of deviant behaviour or criminal activity of others, and with cognitive, affective, and conative dimensions (Cohen, 1972, 2002; Young, 2009; Critcher, 2016). According to Young (1971), a moral panic develops in a complex interplay of behaviours and responses of different types of actors, in which interplay social meanings are constructed, and the deviance and risk is amplified. As a result, societal reactions develop that can be considered 'disproportionate' when compared to the risk or deviance in question: in the height of concern as in the conative component of the perceptions of security, thus leading to what could be called an 'overshoot' in crime control activities, legislation, or social policy. In Young's perspective six types of actors are needed in the intricate interplay that leads to a moral panic: folk devils (the people held responsible for

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[24] In which 'message A' leads tot 'effect B'.
[25] For instance: a tentative search on Web of Science, with the search phrase "social media"+"fear of crime" resulted in 10 publications (last date of search July 2nd, 2021).

the deviant behaviour, rule enforcers, the media, politicians, action groups (or 'moral entrepreneurs') and the public.

I find it interesting to observe that moral panic theory, which has been criticized by some as poorly developed (cf. Critcher 2016), shows a great resemblance to Kasperson's framework of risk amplification and to the complexity view on perceptions of security as described in the previous paragraph. It almost strikes me that Cohen and Young, in their description of the intricate interplay between different actors, formulated a perspective of complexity science *avant la lettre.* Negating our dominant desire for clear and preferably quantifiable, unidirectional causal relations, just because these 'simple' relations do not exist in the formation of this phenomenon. Their concept of moral panics shows an overlap with Innes' concept of *signal crimes* as well: the crimes or other forms of deviant behaviour that are seen by the public as signals that the extant social order is in danger and that action is needed to correct that (Innes and Fielding, 2002b). Not coincidentally, Innes observes that *signal crimes* can form the start of a moral panic, by leading to a process of cultural introspection about the state of our society and the workings of the criminal justice system. Based on a study of examples of civil unrest of recent in western countries in Postmes *et al.* (2013, 2014) observe that unrest develops where an 'morally loaded upper current of discontent or concern' touches upon a 'morally loaded undercurrent of discontent or concern' in society, thus again pointing to the importance of concern on the state of society.

Perceptions of security can manifest themselves at higher aggregation levels in other forms than just collective perceptions of security as well. The process can lead to the emergence of for instance new norms (Turner and Killian, 1972), social movements (Altheide, 2006), or organizations as well (Gillespie, Perry and Mileti, 1974)' I will come back to this issue in the next chapter.

5.5   Conclusions

In the previous chapter I described the basics of the process in which perceptions of security form. This resulted in a seemingly straightforward process, consisting of a few – theoretically seen – clearly distinguishable subprocesses. The process is *transactional* however, whereby perceptions of security form in a transaction between person(s) and context(s). That means that perceptions of security can only be studied and understood when the characteristics of persons and contexts at stake are taken into account. The present chapter described the mechanisms and factors that then come into play.

Confounding mechanisms such as heuristics, biases, and other mechanisms that 'skew' individual perceptions and appraisals. In a second group, *complicating factors,* I described the influence of different personal characteristics, the situational context in which the

process takes place and of the macro (socio-cultural and socio-economic) context in society. These factors and mechanisms interact, in a multidirectional way, with linear and non-linear relations, feedback loops and causal cascades, thus making the process in which perceptions of security form *complicated,* but above all *complex* in the terminology of complexity science*.* I therefore propose that the study and understanding of perceptions of security can be advanced by the use of the paradigm of complexity science and its perspective of society as a *complex adaptive system*. This brings some specific consequences. The first is that perceptions of security are so dependent on the intricate interplay between different (f)actors and developments in the specific context, that they can only be understood in their specific (personal, temporal, social, cultural) context. This means as well that it is hazardous to generalize findings on (aspects of) perceptions of security, when not all aspects of the context(s) in which these are studied are taken into account. This might be a drawback of many studies on fear of crime up to now for instance, as well that it might explain why these studies up to now so often yield 'mixed' findings; it is plausible that these reflect the 'mixed contexts' in which the studies were undertaken. The findings from both literature and sub studies raise the question as well whether our knowledge, understanding and operationalisation of relevant factors in the different contexts need further deepening, see for instance the recent advances on the influence of public moods, the relevance of *routine activities* in the operationalisation of the situational (neighbourhood) context, or the up to now under researched change of concepts over time as presented in this chapter.

A further consequence of the transactional character of the *process-oriented perspective* and the complexity paradigm it holds is that exact prediction of perceptions of security is not possible, although certain outcomes are more likely than others and specific patterns can be expected as well. A last consequence is that, following the complexity paradigm, *collective* perceptions of security, such as collective worries and anxieties or moral panics, can be seen as *emerging properties* of the complex adaptive system, emerging at a higher aggregation level as a result of individual perceptions of security at the individual level but feeding back to these as well. It means that manifestations of perceptions of security at the different aggregation levels have to be seen and studied within the context of the manifestations at the other aggregation levels.

6   Perceptions of security as stones in the pond of society

In (Dutch) political and professional debate, fear of crime and related perceptions of security are often framed as 'something that makes people feel unpleasant' or – at the most – make 'some people avoid some situations', often for the wrong reasons. I have never been convinced that this is much different in mainstream criminology. Some years ago, an acclaimed criminologist asked me for instance: *'why should government try to mitigate fear of crime? It is not a responsibility of government to make people feel good, isn't it?'*. I am certainly no expert in the administrative or political sciences, but I do not think that it is a core task of government 'to make people feel good.' I see it as core function of government, however, to facilitate a smooth functioning of society whether that be in the socio-cultural, economic, or political sphere. To try to achieve a society where people can move and interact freely; in their house, their neighbourhood or at their work, or when travelling or recreating. Where people are aware of some risks and threats, but in a functional way. Where communities strive, providing the social interaction and social support people so desperately need and where collective efficacy is felt. Where people, without bias, are seen and treated as equal. Where institutions, legislation and public policies are experienced by the public as legitimate and just. And where attitudes and behaviours of people are not manipulated and exploited. As I will show in this chapter, perceptions of security can affect all those issues. They have an impact that, I came to believe during the various sub studies I undertook within the framework of this thesis, may have become bigger than ever in contemporary times. However, up to now, this impact has been structurally undervalued, in research as well as in policy and practice.

In the sub studies that contributed to this thesis, I observed a wide range of – sometimes small, sometimes far-reaching - effects. In the form of a desire to move house for instance (Eysink Smeets and Schram, 2015b), of hate crimes against refugees (Eysink Smeets and Boot, 2017b), or of a constrained freedom of movement or expression (Eysink Smeets and Flight, 2020; Schram, De Jong and Eysink Smeets, 2020). I observed changes in social control – both positive and negative -, as well as changes in confidence in authorities (Eysink Smeets, 2020a). And those are just a few examples. When I performed a more systematic exploration of effects of one particular *species* within the family of perceptions of security - fear of terrorism – as well, I started to see a pattern in the societal domains that can be affected by perceptions of security. This led – in the 'back-and-forth-dance between theory and practice' that is so typical of explorative research – to a re-evaluation of the literature on (old and new) fears of crime, which supported the pattern I had started to see. And then, when I had almost finished my thesis, the COVID-19 pandemic broke out. So, I used the notions acquired in my research up to then to see if they held some ecological validity by describing patterns of effects that might become visible in society. They did, as I will later describe. In the explorative process described above, another notion gradually evolved as well. That is that effects of perceptions of security feed back into the formation process *by definition.* Effects of perceptions of security therefore not only form

the end, but also the beginning of the process of formation, which therefore must be seen as *circular.*

In describing the effects of perceptions of security, I will not follow the sequence of the exploration process I followed as described above. Instead, I will follow a more traditional sequence, starting with the effects of fear of crime, after which in consecutive sections, I will discuss effects of fear of terrorism and other *species* of perceptions of security. Effects of perceptions of security cannot be understood to the full, however, without including the *functionality* of these perceptions into the equation. I will therefore start with a reflection on that issue.

6.1   The (dys)functionality of perceptions of security

The *process-oriented approach to perceptions of security* implies that people think, feel and act differently, as a result of the appraisal of threat or harm and the possibilities for warding off that threat or harm. This can for instance result in constrained behaviour (Hale, 1996) or other attitudinal and behavioural responses (Garofalo, 1981), at the individual as well as on the collective level. In the complex adaptive system of society, actors each have their own thoughts, judgments, feelings about - and actions on - security. Different threats will yield different perceptions of security as well, each with their own cognitive, affective, and conative manifestations. Following the complexity paradigm, it can be expected that each of these manifestations will interact with others, thus leading to new manifestations. In the literature, it has already been noted that constrained behaviour of individuals can for instance lead to a decrease of informal social control in a neighbourhood (Conklin, 1975), which in turn can lead to an increase of crime and a breakdown of the community (Skogan, 2015).

Due to effects like as these, traditional fear of crime has been often framed as a 'problematic phenomenon', as a social problem in itself, and/or as a problem for the wellbeing of the individual (cf. Brooks, 1967; Kleiman and Clemente, 1977; Weisburd, Lewis and Salem, 1987; Potter and Kappele, 1998; Gainey, Alper and Chappell, 2011). Seen from an evolutionary standpoint, perceptions of security can be considered to be functional however. Perceptions of harm of threat and the emotions that come with these help us to survive (Gray, 1987). Our emotions give us the intention to act (Frijda, 2008). In the face of (perceived) danger, our anxiety, fright or anger gives us the urge to 'fight, flight or fright' (Bracha, 2004; McCarty, 2016). It is even supposed that a certain amount of 'over-reaction' gave us evolutionary advantage (De Jong and Vroling, 2014), just as that evolution taught us to be wary and vigilant in times of change. Change could bring new threats or challenges in its wake, of which it was uncertain if and how these could be met. Seen from the evolutionary viewpoint described above, perceptions of security cannot not be considered problematic or dysfunctional, but rather as functional. They enable us to *cope* with risk and danger, and the stress they bring. Stress studies show however, that not all forms of coping

have that effect. In this discipline, a distinction is made in *adaptive and maladaptive coping*. A coping strategy is considered to be adaptive, when that strategy leads to a decrease of the experienced stress. When the stress itself is not diminished, but just 'acted out', displaced or suppressed the coping is seen as maladaptive (Turanovic and Pratt, 2013; Papathanasiou, 2015).

In traditional fear of crime studies, a somewhat different distinction is more often made, between *functional* and *dysfunctional* 'fear'. Garofalo (1981) was first to use that distinction, considering fear to be functional, when it led people to take 'reasonable precautions'. He hypothesised that for this 'a small amount of fear' probably was sufficient, adding that an increase in the intensity of fear would quickly become dysfunctional, as the behavioural and attitudinal responses would "go beyond what is necessary to prevent victimization and produce effects such as unnecessary avoidance of potentially rewarding social interactions and unwarranted distrust of others" (Garofalo, 1981, p. 856).

The issue of functionality remained less discussed until some decades later Ditton & Innes (2005), and Jackson & Gray (2010) in particular put the issue back on the research agenda. The latter authors found in a UK-survey that:

> ….one-quarter of those individuals who said they were worried about crime also viewed their worry as something akin to a problem-solving activity: they took precautions; these precautions that made them feel safer; and neither the precautions nor the worries reduced the quality of their lives. (ibid, p311)

In further work, Gray *et al* (2011) proposed an ordinal scale that moves from the 'unworried', to low-level motivating emotions, to frequent and 'dysfunctional worry' about crime. The researchers thus noted that fear of crime could be helpful as well as harmful, as some people would convert their concerns into constructive action (functional), while in others their worry eroded their wellbeing and quality of life (dysfunctional). In Dutch work, Van Den Herrewegen (2011) and Spithoven (2017a) later came to comparable findings. Spithoven concluded that most people use their fear of crime as helpful guidance 'to keep trouble at a safe distance', by means of minor adjustments of their (routine) activities, without any further negative consequences for their wellbeing or quality of life.

The distinction between *functional* and *dysfunctional* (as made in fear of crime studies) and *adaptive* and *maladaptive* (as made in stress studies) bear a strong resemblance but are not exactly the same. The distinction made in stress-studies focuses on the direct relation between stress and coping. Does the coping reduce the stress (adaptive), or does it suppress, postpone or even increase it (maladaptive)? In theory, that can be measured. The distinction made in fear of crime studies may be summarized as to 'does it keep you out of harm's way' and does it do that at a 'reasonable price'. The first part of that definition may again – in theory – be measured objectively. But what is that reasonable price? That part of

the definition strikes me as somewhat less direct and – as I noted above on Garofalo's distinction - normative. Who decides what is reasonable, to whom, and by what criterion?

Home security (fitting locks, closing doors, etc) is for instance often propagated as a wise action to prevent crime and thus as a functional behavioural response to perceived crime risk. In their study of a short but intense heatwave that hit Chicago in 1995, Changnon, *et al.* (1996*)* described how 525 inhabitants lost their lives due to the heat. One of the (several) reasons they found for the many deaths: "the inability of many persons to properly ventilate their residences due to fear of crime*"* (Changnon, Kunkel and Reinke, 1996, p. 1497)*.* Must we consider that fear of crime now functional (as these people took preventive measures) or as dysfunctional (as this cost them their lives)? I would say dysfunctional, as the primary effect of their fear may have been functional, but the secondary effect was dysfunctional to such an extent that – to my standards - it outweighed the primary benefits.

The example tells us that in distinguishing the functionality of perceptions of security, we not only have to look at the primary effects, but at the follow up effects as well. With that, another difficulty is introduced, however. Because what is good for the individual, is not always good for the collective, and vice versa. In this way, fear of crime may be functional for the individual, but dysfunctional for others, and the other way around. It may as well be functional from a perspective that is different from the dominant group in society (or from the perspective of the average (European) researcher or security professional).

As a middle-class North-West European, living in a reasonably safe neighbourhood, I for instance observe an instinctive urge in myself to define carrying a weapon in reaction to perceived insecurity as a 'dysfunctional' response. In a review of the literature on firearms accidents among low-income, urban children, the (U.S.) researchers observed that the tendency of low-income families to keep unsecured guns for protection may contribute to the relatively high number of these accidents. They add however, that "the evidence suggests that the decision to keep a gun for protection is largely a practical response to the conditions a person perceives in his or her neighborhood" (Vacha and McLaughlin, 2000, p. 496). Staff (2018) observes that many American black youngsters carry guns for self-protection, while in the Netherlands and several European countries a rise in knife-carrying among youngsters is reported, often for the same reason (Home Office, 2019; Hassink, 2021). Can we only see such responses to perceived insecurity as dysfunctional, or are we able to see the (perceived) functionality of that response from the perspective of the weapon-carriers themselves? I would find it interesting to study these responses as well from the perspective of adaptiveness/maladaptiveness. What would we find: do these responses decrease their stress and fear, or subdue, postpone, or increase it?

The examples make clear that the question of functionality or dysfunctionality depends on the standards that are used to determine that functionality and on the aggregation levels

(individual, collective) that these standards are applied to. Thinking along that line brings another question on the functionality of fear of crime and related perceptions of security as well. This question is less often posed and addressed. That is the question:….*functional to whom?* The answer to that question may be better understood by a deeper understanding of the diverse effects of perceptions of security. I will therefore first discuss these effects, returning to the last dimension of functionality after that.

6.2   Exploring the effects of perceptions of security

Various authors have stressed the importance of research into the character, prevalence and further formation of these effects: from the 'early pioneers' of fear of crime studies (Dubow, McCabe and Kaplan, 1979; Garofalo, 1981) to authors in other security domains in the second decade of the new millennium (cf. Bakker & De Graaf, 2014; Henson & Reyns, 2015). It seems that the pioneers' plea has not been followed to the full, however. As I noted before, the body of knowledge on these effects and how they form is still not very extensive.

Lazarus (1993, 2000) uses in his stress studies the term 'effects' for the results of the process of appraisal and coping. In this line of thinking, the cognitive, affective, and conative dimensions of perceptions of security can all be addressed as *effects*. In this chapter, I follow Lazarus' reasoning, but expand this once again with the paradigm of complexity. In this way, I consider as effects both the responses at the individual level as the effects at the collective level, due to the chains of effects the responses at individual level may set in motion. That choice is not only inspired by the theoretical considerations that result from the line of argument I laid out in the previous chapters. It is also inspired by empirical considerations. Over my years of research on perceptions of security, I more and more developed the impression that we are especially not aware of the *chains-of-*effects that perceptions of security can have in individuals, communities, and society as a whole. This issue became even more pressing when, shortly after the start of this explorative research, I observed the societal dynamics in response to the terrorist attacks of 2014/5 and to the various events that shocked my country in the years thereafter. Exploring those dynamics, it seemed to me that in the individual and collective responses to these perceived threats more common patterns could be observed than had been described up to now, and that in these patterns more of the societal relevance of perceptions of security was enclosed than acknowledged up to then. As I mentioned in the introduction to this chapter, from then on I started a process of going back-and-forth between theory, the empirical body of knowledge as present in the literature and the sub studies this thesis is based upon. This was a process of triangulation, one could say, aimed at distinguishing patterns in the effects of perceptions of security in society. By including both direct and indirect effects of perceptions of security, gradually an image developed of 'perceptions of security as a stone in the pond of society', causing ripples (Jungermann and Slovic, 1993) or

waves in communities and societies that affect similar areas of life in similar ways, depending on the vehemence of the initial shock, but independent of the type of (perceived) threat that caused that shock.

When that triangulation process neared its completion, in the beginning of 2020, a new threat shook my country (and the world): that of the Covid-19-pandemic. As I saw that the pandemic carried a pandemic of perceived insecurity in its wake, I had the (unfortunate) opportunity to see whether the patterns I had come to see would fit the effects of that pandemic as well and might even be used to predict reactions in society. That indeed to turned out to be the case, as I will elaborate on more extensively in chapter 8. In the next paragraphs I will first describe the effects of fear of crime, fear of terrorism and cybercrime separately, before I combine these into the 'stone in the pond' meta-pattern.

6.3   Effects of fear of crime

As mentioned before, in studies on fear of crime, this phenomenon has often been described as a serious social problem in itself. One would presume then that *why* and *how* that is the case and *why* and *how* fear of crime 'affects' society would develop to be a well-covered topic of research. Unfortunately, this is not the case. Effects of fear of crime are certainly described though in early works in this field of study. Kleiman & Clemente (1977) point to the "forced alteration of daily living habits and the negative psychological effects of living in a daily state of anxiety"." In their review, Dubow *et al* (1979) describe the behavioural 'reactions to crime', divided between individual and collective responses. For the individual reactions they developed:

> …a typology which includes avoidance, home and personal protective, insurance, communicative, and participative behaviors. Collective behavioral responses are discussed in terms of crime control, crime prevention, victim advocacy, and offender-oriented activities (Dubow, McCabe and Kaplan, 1979, p. iv).

Not much later, Garofalo (1981) developed an early process-oriented model that sketches causes and consequences of fear of crime in consecutive relation to one another, and in relation to characteristics of person and context[1]. Concerning the effects of fear of crime, Garofalo made a distinction between 'individual responses' and 'social outcomes'. Under the 'individual responses', he more or less[2] reckoned the same five responses as Dubow et al. (1979), adding a sixth: *information seeking*. This is the response where an individual

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[2] Garofalo stressed that DuBow et al's concept of 'reaction to crime' differs slightly from the concept of 'fear of crime. Notwithstanding that, he considers their categorization in five types useful for fear of crime as well, with a small adjustment: avoidance should in Garofalo's opinion be split in avoidance and escape, this accommodating for the difference between 'anticipated' and 'actual' fear (Garofalo, 1981, p848).

"actively seeks out a greater quantity of information about crime and is more sensitive to information and cues which he or she might not have noticed previously" (Garofalo, 1981, p. 851).

Under 'social outcomes' Garofalo includes effects such as diminished informal social control and social cohesion, growing distrust and alienation from social life. These effects are in his perspective not just the simple summations of individual responses. Instead, the individual responses should be viewed as "catalysts that initiate social processes which then assume their own dynamics and logic" (Garofalo, 1981, p. 851). In these processes, individual responses to fear of crime, such as avoidance or protective behaviour, can create causal loops feeding into the fear of crime, again, for instance by increased crime or neighbourhood deterioration. Here, Garofalo drew upon Conklin (1975), who questioned the Durkheimian notion that crime leads to increased social solidarity as members of society reinforce the normative order by jointly reacting to crime. Instead, Conklin:

> …argued that crime produces fear, and that responses to fear unleash a series of negative social outcomes: heightened interpersonal distrust, withdrawal of support from the systems of formal authority devised to control crime, and decreased levels of social interaction. The latter, according to Conklin, leads to a weakening of informal social controls in the area affected; this, in turn, leads to an even greater amount of crime. (Garofalo, 1981, p. 851)

Lastly, Garofalo adds that social outcomes not only form through individual behavioural responses but can influence social outcomes in another way as well: "the fear of crime, if widespread, can feed directly into attitudes that have broad social consequences, regardless of the behavioural responses that people make to fear" (Garofalo, 1981, p. 852).

Early authors, such as Dubow et al. (1979), Yin (1980) or Garofalo (1981), stressed the need for future fear of crime research "to untangle and specify the effects of fear and the individual responses to fear on broader social processes" (Garofalo, 1981, p. 854). Their advice does not seem to have landed on fertile ground. Certainly, the observation that fear of crime constitutes a social problem in itself is regularly repeated as well as disputed (Box et al., 1988; Farrall, Bannister, & Gilchrist, 1997; Gibson, 2014; Liska et al., 1988; May & Dunaway, 2000; Pain, 1991; Weisburd, Lewis, & Salem, 1987). Researchers point to the underappreciated dimension of the functionality of fear of crime as well as to the limitations of the way fear of crime is often measured. This combination could lead to an exaggeration of the extent and problematic character of fear of crime (cf. Farrall & Gadd, 2004; Gray et al., 2011b; Lee, 2007). In recent years some authors suggest as well that fear of crime over time may have lost some of its problematic character (Lee & Mythen, 2018; Simon, 2018). Within the 'traditional' fear of crime disciplines (of criminology, sociology),

more specific research on the effects of fear of crime has remained scarce, however[3]. In the last two decades, other disciplines such as health studies, education studies or urban planning produced quite a lot of studies on the influence of fear of crime, however. This led to a stream of publications on the effect of fear of crime on for instance wellbeing, health, school engagement, architecture or even choice of life partner (cf. Guite, Clark, & Ackrill, 2006; Harrison, Gemmell, & Heller, 2007; Kruger, Reischl, & Gee, 2007; Roman, Knight, Chalfin, & Popkin, 2009; Stafford, Chandola, Marmot, Tarani, & Marmot, 2007; Whitley & Prince, 2005). With these studies, the body of knowledge on effects of fear of crime increases.

6.3.1   Fear of crime as a 'stone in the pond of everyday life'

Effects of fear of crime can be categorized along different dimensions. Along the distinction in initial and follow-up effects for instance. Or along the aggregation levels at which the effects can be observed: individual, situational or collective. Although these dimensions certainly have their validity and relevance, on my explorative journey I concluded that the understanding of perceptions of security might best be served by using a different dimension. Effects of fear of crime have been described on a wide array of domains of everyday life. These range from freedom of movement or expression to wellbeing and health, and from protective and preventive behaviour to social communication and discourse. Just as that they range from social cohesion to the physical environment, from the quality of education to the local economy and from policing and security to politics. It has also been observed how fear of crime can affect crime itself or can form a breeding ground for disorder or even civic unrest. To make it even more complicated, fear of crime can affect the measurement of crime, thus making the monitoring of (fear of) crime a more hazardous exercise than often supposed. In this section, I will elaborate on each of these domains some more. First, though, I will discuss the way in which our perceptions of security – which fear of crime is – change exactly that: our perceptions of security.

A change of perceptions

Fear of crime may be the product of the way we perceive our surrounding world and ourselves but can change these perceptions at the same time. Or to be more precise: it can change our perceptions, judgements, beliefs, attitudes and expectations. It is a received wisdom that 'everything you pay attention to becomes bigger'. That effect is visible in fear of crime as well, due to the mechanisms I described in chapter 5. Lamet & Wittebrood (2009) for instance find that after falling victim to crime people tend to be more alert, more suspicious to strangers and more aware of their own vulnerability. That effect slowly wears off, but is there nonetheless. Fear of crime can lead to the denial of existing crime problems as well, as a form of emotion-based coping. Places may influence our experiences of fear,

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[3] In their review of the state of the art in fear of crime studies Henson & Reyns (2015b) come to the same conclusion.

but our fear influences our experience of places just the same (Koskela & Pain, 2000), influencing our judgements of the surroundings in multiple ways. It can lower our satisfaction with a neighbourhood, influencing for instance the perceived attractiveness of the neighbourhood to raise children (Dahl, Ceballo and Huerta, 2010). Events that shock a whole community can affect collective memory, thus impacting collective norms, behaviours and beliefs (Puntscher *et al.,* 2014). Those changes can be so fundamental and fundamental that Kiilakoski *et al.* (2014), in their study on a school shooting in Finland, described such a change in terms of Heideggers *Ereignis* (Heidegger, 1999).

Wellbeing and health

The association between fear of crime on the one hand and life satisfaction, well-being or health on the other has been widely documented. Fear of crime has been described as a major urban stressor (Nasar and Jones, 1997), "eroding well-being through a range of neg-ative cognitive effects (such as pessimism and problem exaggeration) and detrimental affective states (such as emotional discomfort and depression)" (Gray et al 2011, p77) . Using data on (fear of) crime and life satisfaction from the European Social Survey, Brenig & Proeger (2018) concluded that fear of crime and criminal victimization significantly reduce life satisfaction across Europe. Similar observations are made in studies of other parts of the world, such as in China (Qin and Yan, 2013), Africa (Møller, 2005; Sulemana, 2015) or the former Soviet-Union (Roberts, Stickley, Petticrew, & McKee, 2012).

The relation between fear of crime and wellbeing or health is an intricate one, however. It is far from linear or mono-directional, interwoven with a multitude of other factors. Fear of crime has for instance been reported to have detrimental psychological effects especially when the neighbourhood's physical and social environment is poor Kruger, Reischl and Gee, 2007), or where an 'unreasonably high level of fear of crime' exists (Markowitz et al., 2001;.Alfaro-Beracoechea, Puente, da Costa, Ruvalcaba, & Páez, 2018). Effect of victimization on distress has been observed more often, of course (cf. Norris & Kaniasty, 1994), while that effect is certainly not uniform in valence, intensity and duration (Whitley and Prince, 2005; Møller, 2005; Lamet & Witteboord, 2009; Roberts, 2012; Sulemana, 2015; Ruhs, Greve & Kappes, 2017). Fear of crime can have an impact on mental and physical health as well by curtailing social and physical activities (Stafford, Chandola, Marmot, Tarani, & Marmot, 2007), leading to decreased social support (Franzini et al., 2005; Qin and Yan, 2013) and/or less physical exercise (Roman and Chalfin, 2008; Binns, Forman and Karr, 2009; Foster, Giles-Corti and Knuiman, 2010; Foster et al., 2014; Astell-Burt, Feng and Kolt, 2015; Powell-wiley et al., 2018).

Freedom of movement

Fear of crime can bring people to avoid certain (types) of locations, times, or groups, to stay home at night or to forbid their children to play out on the street without supervision (Williams, Singh and Singh, 1994; Roman and Chalfin, 2008; Eysink Smeets and Zandbergen,

2011; Van Noije and Iedema, 2017; Krulichová and Podaná, 2018). This avoidance is often related to perceived crime and disorder, the presence of 'others' that are associated with such behaviour, lack of supervision or informal control, and 'darkness' (see for instance Hale (1996) for an overview of findings). The extent to which such constrained behaviour is considered detrimental, and problematic differs, as I described above. That fear of crime can influence the use of amenities, or transportation and relocation choices has also been widely documented (Garofalo, 1981; Del Castillo, 1992; Oc and Tiesdell, 1998; Nelson, Bromley and Thomas, 2001; Neale et al., 2004; Loukaitou-Sideris and Fink, 2008). In one sub study I found that a combination of such factors (darkness, absence of others, lack of 'oversight' and signs of disorder) diminished the use of a bicycle path in the city of Amsterdam after dark (Eysink Smeets *et al.* 2017a). In an earlier study in Rotterdam, we found that for relocation choices not (only) the actual security situation in a neighbourhood is relevant, but the reputation even more. Such a reputation can linger on long after that actual situation has changed (Permentier, Van Ham and Bolt, 2009; Aslan, Znagui and Eysink Smeets, 2011; Osborne, Ziersch and Baum, 2011).

Fear of crime can lead to other types of avoidance as well. In my own research of public reactions to intimidating behaviour of criminal youths in high crime neighbourhoods in the Netherlands, I observed how this behaviour led to *cognitive* avoidance ('denial') of their criminal behaviour, a refraining to intervene or to report to the police and a desire to move to another neighbourhood. Interestingly, the studies contained indications that this avoidance behaviour was reinforced by avoidance behaviour by (some) police and local administrators, due to a combination of fear of aggression, fear of not being backed up by management and a perceived lack of effective interventions. The combined avoidance behaviours led to a status of these youths of 'untouchables'. (Eysink Smeets and Bervoets, 2011; Eysink Smeets, Bervoets, et al., 2013). Other studies describe other forms of avoidance of the police as well, due to for instance fears of being racially targeted or mistreated or for fear of deportation (Cohen, 2017; Messing, Becerra, Ward-Lasher, & Androff, 2015; Simon, 2018).
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Whether avoidance behaviour actually leads to less fear of crime is doubted by various authors. Dubow et al. (1979)find no relation to fear or perceptions of risk, while Zhong & Broadhurst (2007) conclude that risk avoidance and risk management behaviours like this come at a high price: not only due to less freedom of movement of a lower quality of life, but due to higher levels of fear of crime as well. Spithoven (2017) comes to an almost opposite conclusion: that most people indeed do avoid situations they perceive as potentially troublesome, but that they do this by minor changes in behaviour that have no further effect on their wellbeing or freedom of movement.

Protection

Fear of crime not only leads individuals to avoiding situations and/or persons that are seen as presenting a risk of victimization but is associated with various types of preventive or protective behaviour. This behaviour is intended to decrease the vulnerability or attractiveness for crime. Leaving valuables at home for instance when going out, being accompanied or even pretending to be at the phone when crossing a spot that is perceived as potentially dangerous. Another familiar example is home protection, by leaving lights on and locking doors when leaving, by taking a dog or by installing improved locks, lights or a burglar alarm. Snyder et al. (2011) highlight a maybe less expected angle. In three studies of U.S. women, they find that women's fear of crime predicts a preference for life-partners that are aggressively dominant and physically formidable, thus providing protection.

Although the relation between fear of crime and protective behaviour is often described, the causal relation can best be described as spurious, non-linear, and bi-directional, influenced by many other factors. These include the effort required, the availability of resources and the relative importance compared to other challenges (Dubow et al. 1979; Gabriel and Greve, 2003). In the Dutch professional field, increasing the risk-perception or fear of the public is often seen as a promising strategy to stimulate the public to take protective measures. Studies on the effectiveness of this so-called *fear appeal* show that, here again, the relation is not as linear as often thought, leading only to the desired behaviour when fear is high and the action clear and feasible (Peters, Ruiter and Kok, 2012). I came to a similar conclusion in one of the sub studies performed in the course of this thesis: the evaluation of a national communication campaign to increase protective measures against burglary. We found that although messages on the risk of burglary did increase risk perception and fear of crime among the public, this had little observed impact on the desired increase of protective behaviour among the public (Eysink Smeets and Foekens, 2017a; Eysink Smeets, Jacobs, *et al.*, 2017).

Possession of arms or other defensive tools is another form of protective behaviour associated with fear of crime (Williams, Singh and Singh, 1994; Lee and DeHart, 2007). Especially in the U.S., the relationship between fear of crime an gun-ownership or gun-carrying has often been explored. Dubow et al., (1979) found that, different from other protective behaviours, gun ownership was unrelated to fear. Some twenty years later, Hale (1996) came to a different finding: that U.S. studies at that time show that fear does lead to an increase in gun ownership and gun-carrying. Recent studies seem to support that finding (Staff, 2018; Pontes and Pontes, 2019). One study found that in the U.S. the presence of larger city police forces decreased handgun ownership, which could mean that the provision of greater collective security reduces the felt need of residents to provide their own protection (Kleck & Kovandic (2009). As mentioned before, European countries such as the U.K. and the Netherlands - where gun ownership is less common - in recent years

report an increase in knife-carrying by youths that may be associated with fear of crime as well (Home Office, 2018).

Social cohesion and social control

The changes in perception, wellbeing, (freedom of) movement and protective behaviours can in turn affect social cohesion and social control. It can lead to a withdrawal from the community, contributing to a breakdown in the sense of attachment and commitment to an area (Hale, 1996). It can also erode the willingness to intervene, such as in the form of bystander intervention (Zhong, 2010). Paradoxically, these effects in turn can lead to an increase of crime and/or of fear of crime itself (Liska, Sanchirico and Reed, 1988; Skogan, 2015; Markowitz et al., 2001). Some other studies describe an opposite effect, in which the fear of crime leads to increased social cohesion and social control (Oh & Kim, 2009; Gates & Rohe, 1987). These studies are in accordance with the Durkheimian notion I mentioned before that crime leads to increased social solidarity as members of society reinforce the normative order by jointly reacting to crime. The first stream of studies are more in line with Conklin's (1975) argument that fear leads to exactly the opposite: a decrease of social interaction and a weakening of informal social control. Hawdon, Rasanen, Oksanen, & Vuori (2014) hypothesized that the fear-decline model applies to fear associated with traditional street crimes, while the fear-solidarity model would apply to attacks on the collective, such as a school shooting. In their study of the impact of such a shooting, however, they only found support for the fear-decline model.

That fear of crime can bring about 'collective participation' fits the fear-solidarity model. This participation can be found in different forms. In collective forms of surveillance in the neighbourhood for instance, such as neighbourhood watch (Bennett *et al.*, 2008), groups of residents that patrol the neighbourhood at night or (Eijk, 2013; Lub, 2016) or – as I found in one of the sub studies - in WatchAppgroups for neighbourhood safety (Eysink Smeets *et al.*, 2019). Overseeing the findings, it comes to me that fear of crime successfully results in collective participation in situations where that fear of crime is moderate and social capital is relatively strong. That resembles the finding of Lub & Leeuw (2019) in their study of Dutch cooperation between residents and the police: that collective participation in neighbourhood safety is strong in neighbourhoods where it is less needed and weak to non-existent in neighbourhoods where it is most needed.

Other examples of collective participation are so-called *NIMBY*[4]*-groups,* in which residents undertake collective action to prevent changes in the environment that are perceived as risky, or activist groups at the level of society as a whole, such as in recent years the #metoo-movement or Black Lives Matter. More extreme forms are vigilante groups and forms of extra-legal justice, sometimes set up as community self-defence where trust is absent in protection by the official institutions (Harnischfeger, 2003; Malone, 2010). Here,

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[4] NIMBY: 'not in my backyard'

studies sometimes observe 'vigilante violence' against perceived perpetrators or violent *forward panics* of a community (Collins, 2008; Gross, 2016).

A last way in which fear of crime may affect social cohesion and social control is by the social exclusion of specific groups. Gouseti (2018) for instance notes that worry about victimization is related to social categorization biases that damage collective well-being. Fear of crime feeds the exclusion of certain groups from the shared spaces of social life strengthening segregation and worsening the situation of minority groups (Pain, 2000; Low, 2001; Smiley, 2010). Fear of crime in this way can be seen as worsening the position of the out-group and increasing inequality. Rueda & Stegmueller (2016) come to an interesting opposite finding as well: that the rich in more unequal regions in Western Europe are more supportive of redistribution of wealth than the rich in more equal regions, because of their concern with crime.

Functioning of organizations and professionals

Fear of crime is often studied at the level of residential neighbourhoods. The impact of fear of crime on the functioning of organizations is less described. An exception is formed by studies on the impact of fear of crime on education: on school climate, school engagement and school success (Garcia-Reid, Reid and Andrew Peterson, 2005; Cotter, Smokowski and Evans, 2014; Nelson, Dahbura and Martínez, 2016) and how for instance moral panics around school shootings affected these in negative ways (Burns and Crawford, 1999; Madfis, 2016; Addington, 2019; King and Bracy, 2019). In their study of a Dutch youth prison, Van der Helm, *et al.* (2015) describe how the interaction between group workers and prisoners was affected by fear, suspicion, and violence, thus eroding the desired rehabilitative group climate. In the last decades in the Netherlands, professionals from various sectors of societal life have gone on strike or otherwise protested working conditions in which they perceived (rising) aggression, violence or other forms of crime. In the course of this study, I observed several micro-panics that led to professionals temporarily going into hiding and/or to the introduction of counter-measures, of which the effectiveness for the case in question sometimes could be doubted (Eysink Smeets, 2019c; Eysink Smeets and Flight, 2020; Otten and Van de Reijt, 2020).

Crime and disorder

Fear of crime may influence the prevalence of crime in itself, due to the behavioural reactions described in the previous paragraphs. Different causal chains have been described that can induce this effect. Avoidance, protection and constrained social interaction can lead to *less* crime through processes similar to those proposed in routine-activities theory (Liska & Warner, 1991). As mentioned above, a breakdown of informal social control can result in an *increase* of crime (Skogan, 1986; Moore and Trojanowicz, 1988; Markowitz et al., 2001). In extremis, this can lead to a *spiral of decay,* in which:

> …the spread of fear and other local problems provide a form of positive feedback that can further increase levels of crime. These feedback processes include (1) physical and psychological withdrawal from community life; (2) a weakening of the informal social control processes that inhibit crime and disorder; (3) a decline in the organizational life and mobilization capacity of the neighbourhood; (4) deteriorating business conditions; (5) the importation and domestic production of delinquency and deviance; and (6) further dramatic changes in the composition of the population. At the end lies a stage characterized by demographic collapse. (Skogan, 1986, p. 215)

Another way in which fear of crime (in this case the subconstruct of the perceived prevalence of crime) can influence crime levels is through the processes described in the *theory of normative conduct* (Cialdini, Kallgren and Reno, 1991). Where crime is considered to be 'relatively normal', this may increase the willingness to offend (Wilson and Kelling, 1982; Keizer et al., 2008). Shi (2020) found such an effect even in public perceptions of long-term crime trends: where these were perceived as rising (while in fact they were not), provision of information on the actual crime trends led to a decrease of the willingness to offend.

How fear of crime affects measured crime

As will be clear from the above, the phenomenon that fear of crime may increase the actual prevalence of crime has often been discussed. That fear of crime can increase the *measured* prevalence of crime (not reflecting the actual prevalence) has been less frequently examined. Of course, it has been observed that a change in collective concern and public debate can lead to people reporting crimes to the police that were previously un(der) -reported. In recent years, that effect was visible in for instance sexual crimes (due to incidents that gained mass-media-attention and the following #metoo-movement), racist crimes (in the wake of #BlackLivesMatter) or domestic violence.

Egelkamp (2002) demonstrated, however, that a different mechanism can be at work as well. She showed in her study how collective worry and public debate about violent crime in the Netherlands around the millennium change affected the recording criteria used by Dutch police officers for violent crimes that were reported to the police, lowering the threshold for categorizing events as violent crime. Egelkamp showed how this led to an increase in registered violent crime that did not adequately reflect the trend in actual prevalence. Some years later, we made plausible that a similar effect can influence findings of victim surveys, distorting findings on perceived disorder (Eysink Smeets *et al.* 2011). In one of the part studies performed in the course of this thesis, I observed a similar effect in self-reported victimization of (attempted) burglary. Self-reported *attempted* burglary increased in years where shortly before the fieldwork of the survey much publicity was given to the risk of burglary, while in the same period police-recorded burglaries and insurance claims showed a consistent downward trend (Eysink Smeets *et al.*, 2017). It

seemed plausible that the publicity made burglary more-top-of-mind at the time of the survey, leading respondents to report events as attempted burglary that they previously would have qualified differently, a mechanism familiar from studies of public opinion surveys (Tiemeijer, 2006).

Physical environment

Fear of crime in a specific context slowly but certainly solidifies itself in the physical environment. This occurs at the micro-level, in the form of physical forms of protection, but at the meso- and macrolevel as well. Low (2003, cit. in Simon, 2018, p. 87) for instance notes how at the end of the 20th century American cities had developed "a fear of crime-based geography, which placed the most desirable family residential areas as far as possible from the inner city. And even these neighbourhoods came to be hardened with anti-crime features like gates and guarded entryways". Ellin (1997) writes of an *architecture of fear*, with gated communities as the most notorious example. Pow (2013, p. 179) sees a *defensive urbanism,* leading to "fortified residential spaces in which an exclusive spatial order comes to be defined and enforced". While some say that in this way fear of crime results in an increased social segregation, others argue that it consolidates, legitimates and rationalizes class-based exclusion strategies and residential segregation far more than it creates (Low, 2001; Rebotier, 2011). Overlooking the literature, I wonder though if studies from 'high-fear/high-inequality' countries are not overrepresented compared to studies from 'lower-fear/lower-inequality' countries, such as from North-Western Europe. In my own country for instance, I certainly see that fear of crime over the last decades has condensed itself in the physical environment. In urban planning, in architecture, in use, in maintenance. And certainly, some signs of fortification and segregation have been visible. But especially in the new millennium I see many signs as well of what I would like to call an *offensive urbanism,* in which fear of crime is answered by better, more pleasant design, by mixture of different groups, better maintenance and so on.

Economy

Fear of crime can be reflected in the turnover or growth of specific sectors of industry, such as private policing and other security services (Zedner, 2003; Wolf, 2016; Taylor, 2018). It can also form an important factor in the attractiveness – and thus profitability - of sectors such as for instance retail, leisure and public transport (Soenen, 2000; Bowes, 2007; Massey, 2008; Odufuwa et al., 2019). In the Netherlands, fear of crime led to repeated strikes of staff in public transport, thus hindering the functioning of that transport (Van Dijk *et al.*, 1993). The relation between fear of crime and the use of services of these industries or sectors is certainly not linear, influenced by the (socio)economic, historical and cultural context (see cf. Singh & Light (2019).

Zooming in at a lower aggregation level, fear of crime can impact the economic value of real estate. Studies in different countries for instance show a direct effect on house prices,

an effect that varies between type of neighbourhood, type of crime and economic condition (Lynch and Rasmussen, 2001; Tita, Petras and Greenbaum, 2006; Ceccato and Wilhelmsson, 2011; Wilhelmsson and Ceccato, 2015; McIlhatton et al., 2016). Two studies from the U.S that focused on the impact of the presence of a sex offender estimated that house prices in the immediate vicinity of a sex-offender fell by 2-4% (Pope, 2008; Linden and Rockoff, 2013).

(Attitudes towards) security, police, and criminal justice system

Fear of crime has been described as leading to a self-perpetuating demand for security (Zedner, 2003). This demand may take different forms: for more police and policing, for stricter legislation and harsher punishment. Bayley & Shearing (1996) consider fear of crime as an important driving force behind the restructuring of police in western countries and must be seen as a major driver behind the development of new policing strategies (cf. Innes, 2004a; Johnston, 2001; Silverman & Della-Giustina, 2001). According to Millie (2013, p. 143) it has also led to the *policification of social policy*.

Various studies describe how fear of crime affects the public's trust of and confidence in police and the criminal justice system. Based on a multinational study in the America's, Singer et al. (2019) for instance find that fear of crime consistently mediates the effects of victimization on trust in criminal justice institutions. In a series of British studies, a group of researchers around Jackson & Bradford describe how fear of crime and confidence in the police are only loosely coupled, stemming from the same root of "day-to-day signs of social cohesion and control" (Jackson and Bradford, 2009, p. p514). From this perspective, confidence in the police can better be explained by fear of crime as expression than by experiential fear of crime. Studied at the macro-level, this may certainly be the case. Two explorative sub studies on confidence in the Dutch police I performed within the framework of this thesis point in the same direction (Eysink Smeets and Baars, 2016b; Eysink Smeets, 2019d), an issue I will come back to in chapter 8. The question must be raised however whether this explanation is valid as well at the meso-level, in situations of concentrated crime and disorder. Recent studies in disadvantaged and high-crime neighbourhoods (and similar situations) suggest that in these specific contexts confidence in the police is more associated with experiential fear of crime and a product of the perceived effectiveness of the police (Jackson and Bradford, 2009; Jackson *et al.*, 2009; Bradford and Myhill, 2015; Bradford, 2016). The findings of a sub study that covered Dutch high-crime/high fear neighbourhoods are consistent with that hypothesis (Schram, Eysink Smeets and Hendriks, 2021).

Fear of crime is further known to increase punitive attitudes among the public, reducing the appeal of liberal penal policies (Hale, 1996) and increasing support for harsher treatment of

criminals (Seltzer and McCormick, 1987).[5] Hartnagel & Templeton (2012) make credible how the affective dimension of fear of crime – and especially anger – is at work here. Just like it is the case with many other effects decribed in this paragraph, Kleck & Jackson (2017) find that media representations of crime appear to be more influential than the reality of crime, combined with personal characteristics such as race and ideology. The emotions and increased punitive attitudes that can come with fear of crime can also stand in the way of a rational discussion of criminal policy or effective security interventions (Gray, 2018). An example may be found in the effects of mass school shootings in the U.S. of the last two decades. Studies describe the gigantic increase in security, discipline and surveillance, by which new shootings must be 'avoided at any cost', at the same time having detrimental effects on students, and on students of colour in particular (Madfis, 2016; Addington, 2019; King and Bracy, 2019). Is this what Sieber (1981) called a *fatal remedy?*

Governance, control and securitization

High levels of fear of crime or perceived insecurity can affect support for democracy, its institutions and the rule of law (Malone, 2010; Blanco, 2013). It can bring about ideological shifts, for instance towards more conservatism (Sacco, 1995; Schuermans and de Maesschalck, 2010). In line with that, it can affect public opinion and public attitudes towards other social issues, such as welfare and immigration (Costelloe, 2004), although research findings on the effect on attitudes towards immigration are mixed (Chandler and Tsai, 2001; Warner, 2004; Ceobanu, 2011; Smiley, Emerson and Markussen, 2017).

Fear of crime has been described as "the crucial driver of Garland's culture of control" (Simon, 2018, p. 83) and of the securitization of contemporary society (Schuilenburg, 2017; Van Rythoven, 2015). As part of these trends, various authors describe how crime and fear of crime have fundamentally changed politics in western societies over recent decades (cf. Simon, 2018). This change made "the rise of crime in the twentieth century as a powerful 'organizing principle' of political debates" (Loader, 2008, cit in Gray, 2018, p. 48). It may be tempting to see those changes as a sequential *following* a change in collective fear of crime. Of course, the pattern that Godfrey (2018, p. 7) describes as "incident-police action-media attention-authoritarian response" can still be seen. Beckett (1999) pointed out however that in the period of the inception of fear of crime as a political issue in the US, political initiatives did not *follow* increases in public concern but *preceded* these. Simon (2007) describes a political logic of 'governing through crime" that may *seem* to be an alluring and effective answer to the insecurity as perceived by (parts of) the electorate, but in fact fuels a culture of fear and control that inevitably lowers the threshold of fear even as it places greater and greater burden on ordinary Americans. I will return to this issue later in this chapter.

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[5] Jennings et al (2016 cit. in Gray, 2018) suggest that public demands for 'tough' policies respond. 'thermostatically' to the crime rates, and as crime decreased in recent years, public attitudes have become less supportive of harsher punishment.

6.3.2   The effects of 'fear of crime' overall

Fear of crime influences our perceptions, attitudes, judgements, and behaviours. It urges us to avoid troublesome situations and prevent becoming involved in those. It influences the way we communicate and seek information. It may affect our *individual* health and wellbeing, but our *collective* wellbeing and health as well, as it influences social interaction, social cohesion, and social control in our communities. Fear of crime can make us bond with some but exclude others. It does not only affect the social context we live in though. It can affect our physical environment as well as our institutional environment. The latter, because fear of crime influences our attitudes towards institutions, which in turn may affect these institutions themselves, their policies, and their actions. Lastly, our fear affects the crime itself with which it (was supposed to have) started.

In this way, fear of crime can permeate almost every aspect of everyday life, and at all aggregation levels. Changing perceptions, attitudes and behaviours at the individual level elicit changes at higher levels, such as in social cohesion, collective participation, or urban layout. Or, at the level of society, in changes of policy and politics, or in a general trend of securitization. Fear of crime can thus act as a stone in the pond of everyday life, that - depending on the vehemence of that fear – sends ripples or waves to every part of a community or society.

That the effects of fear of crime can be observed on all the (ten) domains I described above may be clear, but how and to what extent this is the case is influenced by the specifics of the context (socio-economical, demographical, cultural, historical, political). At various points in the text, I described effects that could be exactly the opposite of one another depending on the context. Fear of crime can erode social cohesion in one situation but strengthen it in another. The same can be said about the effect on collective participation, or on that on crime itself. It is tempting to presume that this pattern of inversion shapes the difference between functional and dysfunctional fear of crime, between helpful and harmful. If that indeed would be the case, it would be important to know more about the point of inversion or - to use a term that is more accustomed in complexity science - the *tipping point.* This denotes a threshold that, once surpassed, quickly alters 'the effects of the effects'. Not only from the process-oriented perspective on perceptions of security, but from notions from other disciplines as well, one would assume of course that that threshold is formed by the level of perceived threat on the one hand and the social capital, collective efficacy or – more widely phrased – the resilience of the community in question at the other. An (individual and collective) belief that the perceived risks are not *that* big that they cannot be overcome by (accepted and feasible) countermeasures would keep fear of crime beneath the 'functionality threshold'. Past that point, fear of crime would then stand the chance of rapidly becoming dysfunctional or problematic.

Over the years, I learned by experience that an indication of possible dysfunctional fear of crime in a community could be found in the level of measured fear of crime data in the Dutch national crime and victim survey. I developed 'rules of thumb' that fear of crime could be dysfunctional where: (a) a sudden increase of fear of crime was measured; (b) the level of fear of crime was substantially higher than mean level of fear of crime in comparable cities, neighbourhoods or segments of the population; (c) measured fear of crime in the respondents' own neighbourhood was higher than measured fear of crime 'in general'; (d) more than 5% of respondents reported feeling 'often' insecure, and; (e) conflicting trends in crime and fear of crime. One of the last sub studies performed within the framework of this thesis, the study of fear of crime in five neighbourhoods of the Dutch city of Schiedam, confirmed the validity of this set of indicators: in the (four) neighbourhoods where (most) of the indicators were present we found fear of crime being a major factor in a spiral of decay of the neighbourhood. In one neighbourhood where none of the indicators where present, fear of crime could be considered light and functional (Schram, Eysink Smeets and Hendriks, 2021).

In the process-oriented perspective on perceptions of security, effects of fear of crime are seen as the result of *coping*, for which people can use different strategies. In the description of effect presented, various forms of these coping-strategies could be recognized. Avoidance, protection, or collective participation for instance can be seen as the product of problem-based coping. Emotion-based coping leads to effects as a change of perceptions, attitudes, or judgements and, in the most extreme form, in denial. Seen through the distinction between adaptive and maladaptive forms of coping, it strikes me that quite often it is doubted in the literature whether various behavioural reactions diminish fear of crime or are even presumed to lead to an increase. That would mean those forms of coping could be considered *maladaptive.*

In the overview of effects on different domains in society, the concept of *emergence* can be clearly recognized as well. Behaviours at the individual level result for instance in new behaviours at the collective level as well. They also lead to new forms of social organization, such as gated communities, specific security industries, activist groups, or *vigilantes*. From studies of emergent organizations we can learn that these are often temporary, as they "arise during periods of collective stress, serve as transitory social systems providing neglected community inputs and then dissolve after the troublesome period has passed" (Gillespie, Perry, & Mileti, 1974 p767). We can also see the emergence of new interventions, strategies, or policies and, as I already described before, in the emergence of security-related culture, such as a culture of control or of securitization.

Effects as the beginning and the end of a circular process

Over the years, various authors warned against too easy assumptions about directions of causal relations in the formation of effects, warning that they are not yet well understood

and that they sometimes may even be the exact opposite of what is presumed. As mentioned before, some of these authors presume causal loops and feedback-principles. See for instance Jackson & Stafford's (2009, p. 832) assumption of a feedback loop in "which worry about crime harms health, which, in turn, serves to heighten worry about crime". Seen from the *process-oriented perspective* on fear of crime that I propose in this study, feedback loops are not an exceptional complication, but an inalienable part of the formation process. The process through which perceptions of security form starts with a person's perception of cues in the environment. As described before, these are cues from the criminal, social, physical, and institutional context, from media messages and the macro-level context. The *effects* of fear of crime do not only affect an individual's way of perceiving but, more importantly, *change as well the cues in the same environments that form(ed) the starting point.* The process in which fear of crime forms and manifests itself can therefore be seen as a circular process, based on appraisal of cues that will change in the process. See fig. 10 for a (simplified) depiction of this process.
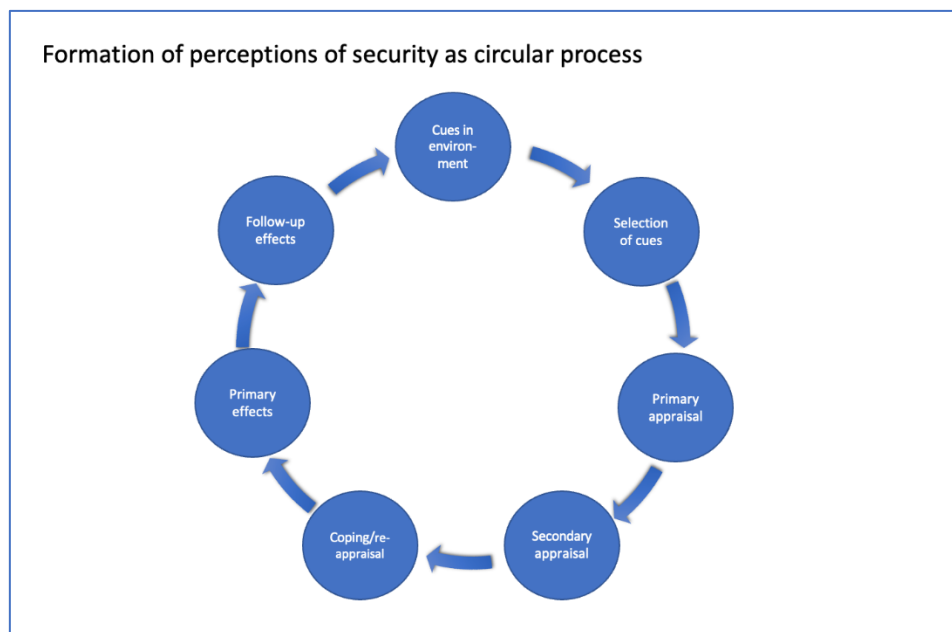

Formation of perceptions of security as circular process

Figure 10 The circular process in which perceptions of security form.

From a philosophical point of view, it must be assumed that this circular process not only can lead to a spiral of decay but, when perceptions of security are functional, to a spiral of stability or even a spiral of trust, in which perceptions systematically improve. In the studies performed in the course of this thesis, I certainly observed spirals of decay (cf. Schram, Eysink Smeets and Hendriks, 2021), but certainly found indications for spirals of trust as well, such as in the studies on fear of crime in the cities of Rotterdam and Eindhoven (Eysink Smeets, 2016h; Eysink Smeets & Schram, 2015a). Finally, the complexity paradigm that is embedded in the *process-oriented perspective*, urges us to consider other feedback loops within the meta-feedback loop described above as well. It must be expected that

changing cues in the various environments interact with each other, thus once again leading to an exponential increase of possible interactions and feedback loops.

6.4   Effects of 'fear of terrorism'

In this section, I will change the focus to a 'new fear', that of terrorism. Could it be that we can observe here a similar variety of effects? With primary and follow-up effects, on a wide range of societal domains, and functional as well as dysfunctional? I described above, how the vehemence of fear of crime forms part of the equation that may determine the tipping point between functional and dysfunctional 'fear'. In the last decades, terrorism has proven to elicit vehement 'fears' in our societies. One would expect then that fear of terrorism – the term that I will use here as the container term for terrorism-related perceptions of security – has a great chance of being dysfunctional. Even more: that is exactly what terrorists are trying to achieve. 'Fear' is the core concept in terrorism. Terrorism is the intentional, 'weaponized' use of fear to destabilize a group or society, with the purpose of achieving another aim. As Schmid & Jongman (1988, pp. 5–6) define: *"terrorists aim to instil fear or anxiety in a society for idiosyncratic, criminal, or political reasons".* One would suppose therefore that this core-concept of 'fear' is an extensively researched issue in the domain of (counter-)terrorism studies. That is not the case. On the contrary, in an analysis of the state of the art in CT-studies, Schmid (2011) considers fear of terrorism 'one of the under researched' subjects of this domain. Bakker & de Graaf (2014) add that empirical studies are scarce, and that the field lacks theory on both the impact of terrorism as well as on the issue of impact management. In one of the sub studies performed in the course of this research, I used a model from risk and safety research, the Bow Tie-model (Ruijter and Guldenmund, 2016), to illustrate what seems to be the contemporary focus in counter-terrorism practice, policy and research. With much attention to the factors and mechanisms that may *lead to* terrorism and terrorist attacks (the left side of the Bow Tie depicted in fig. 11), and to the execution and handling of the attacks themselves (the middle), but far less attention to the right side of the model, in which the (factors, mechanisms and forms of) impact are depicted.
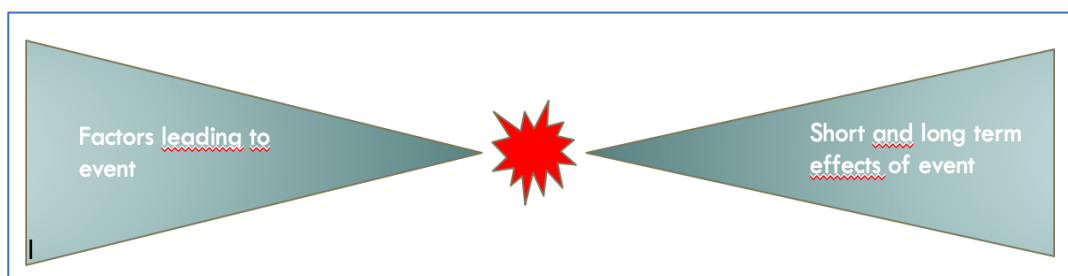

Figure 11 The Bow-Tie model from risk & safety research, with on the left side the factors that lead to an event, in the middle the event itself and on the right side the short and long term effects of that event (from: Eysink Smeets (2016d)

Within the framework of this thesis, I conducted a scan of the literature on the societal impact of terrorism. Similar to the review I performed on the effects of fear of crime, this scan was not confined to counter-terrorism literature, but included publications from for instance finance, economy or tourism, which increased the number of publications substantially (Boot and Eysink Smeets, 2017; Eysink Smeets, Boot and Sikkens, 2017). As a next step, I undertook further research, together with a research group specialized in disaster and crisis management, which resulted in a book on local resilience in times of terrorism, for mayors and other local administrators in the Netherlands (Van Duin and Eysink Smeets, 2017). In the meanwhile, I performed various 'flash-studies' into specific aspects of the fear of terrorism, seizing the opportunity whenever that rose. The findings in this section are predominantly based on these studies and publications.

6.4.1 The 'seven plagues of terrorism'

Just as is the case with fear of crime, effects of perceptions of security that are related to terrorism can indeed be observed in different forms and on different aggregation levels, and in the form of primary and follow-up effects. And, here again, effects cover a whole range of societal domains: from social interaction and cohesion to economy, tourism, architecture, security policy or politics. I take this distinction in domains again as the main dimension for categorization. Here I follow a clustering that is almost - but not quite – the same as used in the paragraph on fear of crime[6]. This clustering in *the seven plagues of terrorism* makes a distinction in effects on (1) wellbeing, (2) mobility, (3) social climate, (4) economy, (5) crime, (6) attitudes towards authorities and policies, and (7) security and civil liberties. Effects on perceptions in general are described as well. I will summarize the findings on each of these domains in the next paragraphs.[7]

Wellbeing

The perceived risk of a (further) terrorist attack evokes concern and stress in substantial parts of the population (Huddy et al., 2002; Traugott et al., 2002; Torabi and Seo, 2004; Conejero and Etxebarria, 2007; Rubin et al., 2007; Eisenman et al., 2009). Minorities, especially with a background that may be associated with the background of the terrorist perpetrators experience more stress (Collins, 2004; Eisenman *et al.*, 2009; Thoresen *et al.*, 2012; Rubin *et al.*, 2015) The stress related to terrorist attacks can even lead to symptoms of Post-Traumatic Stress Disorder (PTSD), not only among direct victims or other people that were close to the attacks, but even among individuals that watched the attack on television (Pfefferbaum, 2001; Pfefferbaum et al., 2003). The concept of psychological distance may play a role here: the more an attack (or risk) will be perceived as proximal, the

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[6] This distinction was made *before* the distinction in effects of fear of crime was made.

[7] In some sub-sections, the text remains close to the original Dutch text of the underlying sub study (Eysink Smeets, Boot and Sikkens, 2017).

greater the impact will be (Eysink Smeets and Boot, 2017c), an effect for instance observed in the Utoya-attack in Norway (Thoresen *et al.,* 2012)

A single terrorist attack does not have to change the perception of 'normal life' of people and therefore forms no reason for them to (consciously) change their behaviour in a lasting way. Puntscher *et al.* (2014) hypothesize however that negative shocks affect a society's level of general trust and that a shocked community may adopt additional preventive measures with longer-lasting effects. Chronic terrorism, however results in adjustments that are long and lasting (Spilerman and Stecklov, 2009).

The way people experience and cope with their stress differs by personal characteristics. Several studies show that women for instance experience more stress than men, but also that they cope with that stress in a more adaptive way. Emotional sharing and support from family, friends and others is for most people an important way to cope with their stress. According to Cairns & Wilson (1984) the coping strategy of 'denial' helped the majority of the Northern Irish population cope effectively through the 'Troubles'. Curran & Miller (2001) observe however that that this troublesome period nonetheless physically and psychologically traumatized many people. Studies find other maladaptive coping strategies as well, such as alcohol or drugs use, or more risk-taking behaviour of adolescents (dangerous driving, drugs- and alcohol use, delinquent behaviour), especially in a situation of chronic risk of terrorism (Boscarino, Adams and Galea, 2006; Sharlin, Moin and Yahav, 2006; Pat-Horenczyk *et al.*, 2007; Spilerman and Stecklov, 2009; Gradus, Marx and Sloan, 2016). Toker et al. (2015) found that fear of terrorism over time was related to elevated levels of job burnout.

Mobility

Avoidance of places or of means of transport associated with the perceived risk of an attack and/or staying indoors is a widely described effect of the fear instilled by terrorist attacks. This avoidance can manifest in different forms. In a (temporary) reduced willingness to use public transport for instance, in increased 'cocooning' and/or avoidance of large gatherings of people (Huddy et al., 2002; Faludi, 2007; Rubin et al., 2007; Eisenman et al., 2009; Liem, Kuipers and Sciarone, 2018) . Fear of flying is another well documented effect (Coshall, 2003; López-Rousseau, 2005; Ekeberg, Fauske and Berg-Hansen, 2014). Gigerenzer (2006) warns how such a reflex of avoidance can bring people 'out of the frying pan into the fire'. Based on the increase of highway travel and highway crashes in the year following the 9/11 attacks, he estimated that 1.500 Americans died on the road in an attempt to avoid the fate of the passengers that died on 9/11.

Social climate

A terrorist attack at first will often elicit an outburst of solidarity in a population. Resembling the patterns described in fear of crime, high levels of generalized social trust before exposure to terrorism have been linked to lower levels of fear after the event, and to increased social cohesion and interpersonal trust (Wollebæk *et al.*, 2012; Enjolras *et al.*, 2019). Fear of terrorism can also increase existing 'cracks' in social cohesion and interpersonal trust however, increasing the distinction between 'in-group' and 'out-group'. In the wake of Muslim-inspired terrorist attacks in the first two decades of the millennium Islamophobia increased in many western countries (Baker, 2015; Dubosh, Poulakis, & Abdelghani, 2015; Pedersen et al., 2012; Poole, 2011; Traugott et al., 2002). It is plausible however, that this can not only be attributed to the fear instilled by the terrorist attacks, but to underlying and pre-existing attitudes towards ethnic and religious minorities and the ways these are framed in media and public discourse as well (Coolsaet, 2005; Nacos, Torres-Reyna and Al-Arian, 2007; Shoshani and Slone, 2008; Bulut, 2016; von Sikorski et al., 2017).

Economy

Terrorist acts themselves may cause direct financial and economic damage, but the damage that the fear of (further) terrorist acts causes may be even greater. A short-term effect can be the fall of stock markets - such as after the 9/11 attacks – but history shows that the financial markets absorb the shock of a terrorist attack in most cases quite quickly (Chen and Siems, 2004; Eldor and Melnick, 2004; Chesney et al., 2005; Morag, 2006; Spilerman and Stecklov, 2009; Karolyi and Martell, 2010). Avoidance behaviour that comes with the fear of terrorism can have a major economic impact however, leading to loss of revenue of for airlines (Coshall, 2003) or tourism industry, combined with costs of security measures to reassure the public and mitigate avoidance. As tourists tend to avoid destinations where a terrorist attack has happened or might happen, the impact of fear or terrorism is particularly pronounced on the tourism industry. This avoidance effect is estimated to last between three and nine months after a major attack, but substantially longer after repeated (threats of) attacks (Goodrich, 2002; Pizam and Fleischer, 2002; Drakos and Kutan, 2003; Bonham, Edmonds and Mak, 2006; O'Conner, N; Stafford, M.R. ; Gallagher, 2008; Kosova, R. & Enz, 2012; Baker, 2014; Wolff and Larsen, 2014). According to Baker (2015) the perceived risks of an attack in a specific destination are often esteemed as greater than they actually are. Ahlfeldt, Franke, & Maennig (2015) presume in this respect that a heightened risk perception is influenced by not only the geographic, but also the ethnic and religious proximity. The impact of terrorism on tourism and the wider economy is especially great in developing countries and detrimental to growth in countries with low levels of political openness, high levels of political instability, and strong terrorist activity (Llorca-Vivero, 2008; Thompson, 2011; Meierrieks and Gries, 2013). Adjustment of the counterterrorism level in response to terrorist threat may moderate the impact of terrorism on trade (Thompson, 2011; Bandyopadhyay and Sandler, 2014).

Crime

The behavourial reactions to acts of terrorism of both the public and the police can result in changes in the prevalence of crime. 'Ordinary' crime has been found to decrease in places where police and security services are concentrated in response to threats of terrorism crime (Donohue and Ho, 2005; Klick and Tabarrok, 2005; Gould and Stecklov, 2009; Draca, Machin and Witt, 2011). It could be that potential perpetrators find these places too risky to commit a crime. There are some indications however that at the same time crime increases in places where police are withdrawn, thus perhaps resulting in an overall increase in crime (Donohue and Ho, 2005). Other behavioural reactions may lead to changes in (the prevalence) of crime as well. When due to safety-concerns people are going out less, this may lead to more people present in residential areas, thus increasing social control, which is further helped by a general alertness among the public in the days after an attack. This might explain why a decrease in property crimes has been observed in the first days after a terrorist attack (Gould and Stecklov, 2009). A similar pattern has been noted in domestic violence.

There is consistent evidence that public reactions to acts or threats of terrorism can lead to a (sharp) increase in hate crime. In this millennium this has been observed in various countries in the wake of Muslim-inspired attacks, leading to hate-crimes against Muslims (Kathlee et al., 2012). In the first three weeks after the 2005 London attack, hate-crimes against Muslims in the UK increased sixfold (Disha, Cavendish and King, 2011). A similar pattern was visible in the Netherlands after the murder in 2004 of Dutch publicist Theo van Gogh (Witte, 2010) and – as we found in the one of the sub studies performed within the framework of this thesis - after the 2015/16 attacks in France, Belgium and Germany (Eysink Smeets & Flight, 2020).

Relation public – authorities

An often-noted public reaction to terrorism is a sudden rise in trust of and confidence in public leadership. It is as if the public's desire for security, stability, loyalty and solidarity in reaction to the perceived threat is projected onto public leadership. This *rally-around-the-flag-effect* (Mueller, 1970) is temporary, wearing off after some weeks or months. A similar effect can be observed in trust in institutions, such as the police (Dinesen and Jæger, 2013; Sela-Shayovitz, 2015). This effect I also observed in sub studies on public confidence in the Dutch police after 2015/16 (Eysink Smeets and Baars, 2016b; Eysink Smeets, 2019d).

Studies show a consistent effect of terrorist attacks as well on politics. A cross-national analysis of voter turn-out after terrorist attacks in 51 democracies indicated for instance a robust positive relationship between acts of terrorism and voter-turnout (Robbins, Hunter and Murray, 2013). Other studies found effects such as ideological shifts among the electorate, polarization of political debate and shifts in political power immediately

following terrorist attacks (Berrebi and Klor, 2006, 2008; Montalvo, 2011; Rogelio Alonso, 2016).

Securitization and civil liberties

The greater the threat that is perceived by the public, the greater their willingness to 'trade in' civil liberties to diminish that threat (Huddy, Khatib and Capelos, 2002; Davis and Silver, 2004; Jenkin, 2006). This effect appears to interact however with people's trust in government and the perceived effectiveness of countermeasures (Davis and Silver, 2004; Garcia and Geva, 2014). The lower these are, the less willing people are to trade in their civil liberties, regardless of the perceived threat. Matthew & Shambaugh (2005) add that an observed willingness is not of unlimited duration, which makes them speak of a *pendulum-effect.* Hunter (2016) performed an analysis of the influence of domestic and international terrorist attacks on civil liberties and political rights in 48 democratic states over the period 1971–2007. His study shows that in countries with a relatively strong democratic tradition – such as the Netherlands - civil liberties and rights in this period were only slightly curtailed due to the threat of terrorism. Since then however, authors in the Netherlands warned of a creeping process of securitization as a result of perceived terrorist threats in the new millennium (cf. De Graaf & Eijkman, 2011). Other studies mention effects in the form of shifts in politics (Dayag-Laylo, 2004), security policy (Jore and Nja, 2009; Kozolanka, 2015), legislation or functioning of the legal system (Fischer et al., 2007; Tait, 2011). Securitization due to terrorism is even observed in architecture (Charney, 2005; Kupilik, 2005).

Not surprisingly perhaps, the vehemence and volatility of fear of terrorism has been described in terms of a *moral panic* as well. With its intricate interplay between folk devils, moral entrepreneurs, media, politics and the public and the heightened perceptions of risk and emotions, the stereotyping and hostility that come with that phenomenon. Leading to exaggerated and often symbolic policy answers that could bring 'negative social ramifications' (Rothe & Muzzatti, 2004) and in which the fears and anxieties are manipulated for political purposes (Walsh, 2017).

6.4.2   Effects change over time

Based on the analysis of public reactions to events - such as terrorist attacks – that shook western societies in over more than a century, Collins (2004a) proposes that the public responses to such events show consistent patterns, with different manifestations and different effects in different stages. Conflict for instance produces solidarity, but only under specific conditions. "The key to such a pattern is the dramatic incident, the attention-focusing event: a sudden attack and response to the attack, or a dramatic celebration at the end of a conflict." (Collins, 2004, p. 55).

In what unfolds after such an incident Collins distinguishes four 'phases'. The first phase consists of one or two days of hushed silence and shock. Social life almost comes to a

standstill, people come together to talk about the event and try to understand what happened.[8] Then a second stage sets in. Emotions flare up (fear, anxiety, anger, disgust) and go viral, as the need is widely felt to express and share these emotions, just as a feeling of solidarity. Sometimes after some competition, a dominant solidarity symbol emerges (such as in the case of the IS attacks in Paris *Je suis Charlie* or *Pray for Paris*). Public gatherings are held to express solidarity. There is no room *not* to express solidarity, just as there is almost no room for different opinions. Often simplified images of heroic behaviour and heroes emerge (cf. the firefighters of 9/11 or the Malinese shop assistant of the Parish store attacked in 2015). Collins estimated that this second stage lasts for one or two weeks. His study and publication is from the time before social media 'conquered our world' however, which may have increased the speed in which public responses go through these phases. My observations during the various terrorist attacks in Europe from 2015 to 2017 were in support of Collins' stages, but indeed with a greater speed, with a second phase commencing in less than one week.

In the first two stages public attention is focused solely on the event that elicited these reactions. After this stage, this 'mono-focus' wanes, while the need to express solidarity remains high. In the public two different streams can be seen: the 'pragmatic', who want to return to normal life and the 'fanatic', who want to keep both emotions and security at a high level. Some individuals and organizations try to get their share of the public attention as well: by false alerts, a new terrorist attack, a call for more stringent policies or by demonstrating that security is not tight enough. In both stage 2 as 3 both the public and the security services are particularly on the alert, leading to many alarms concerning suspicious situations. Authorities take stringent security measures, often with a ritualistic or symbolic character. This third phase lasts according to Collins for a period of two to three months. The fourth and last phase is a gradual decline toward normalcy, according to Collins over a period of six to nine months. More subtle behavioural and attitudinal responses still occur in this period however, leading to further effects in society. When, during these phases a new attack occurs, the public reactions will not be as frantic as on the initial attack or event, Collin (2004a) notes. He speaks of a *refractionary period,* which causes that only after phase 4 the public shock can be as great again as on the first event.

The American Counseling Association (2005) describes how the (first) anniversary of an attack often temporarily brings back the focus of the public on that attack, with the emotions that come with that. That pattern could indeed be observed after the 'big' terrorist attacks of the last decade in Europe or in The Netherlands on the first anniversary of the downing of flight MH17, which makes me see this as a separate, fifth stage.

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[8] With Horowitz (2001), Collins observes how the first stage, the period of one or two days of hushed emotions before overt enthusiastic solidarity breaks out, is also found "almost invariably at the outset of deadly ethnic riots [...]. A "calm before the storm" intervenes between the dramatic precipitating event (usually some symbolic threat from an enemy) and the actual outburst of ethnic violence." (Collins, 2004).

The stages in solidarity and other public responses can have their consequences as well in popularity of (and support for) public leadership in the form of for instance a president, politician or mayor. Support rises quickly, remains high for a couple of months and then slowly returns to normal, according to Collins. It reflects the 'rally around the flag effect' mentioned in earlier paragraphs (Mueller, 1970; Nacos et al., 2007; Robbins et al., 2013). The different phases in public reactions may have different effects on the acceptance of (and even desire for) security measures in the face of terrorist threats as well. In the Netherlands, the security forces for instance have always been reluctant to deploy police with automatic rifles - or even of the military – in public places, for fear of *increasing* fear instead of reassuring the public. Based on the *congruency hypothesis* I described in paragraph 5.3.3., in combination with Collins phases, I suspected that this may indeed be the case in general, but that in phases 1 and 2 the effect might be exactly opposite. A first, very provisional, confirmation came from short interviews with heavily armed police at places where their deployment was already more common, such as airfields. They described how they received much verbal support of members of the public in approximately the first week after a terrorist attack that shook the public[9]. A second confirmation came from a small survey (n=63) of passengers at Amsterdam Central Station, conducted when Dutch police for the first time deployed a heavily armed security unit at this station on the second day after the 2016 terrorists' attacks in Brussels. The majority of respondents found their presence reassuring, only a small portion of respondents (15%) answered that their presence increased their fears: they would rather not think about the (risk of) attacks, which the heavily armed police made more difficult[10].

6.4.3   The effects of 'fear of terrorism' overall

The effects of 'fear of terrorism' show great resemblance to the effects of fear of crime as I described in the previous section. Just as is the case in fear of crime, the effects of fear of terrorism 'bear the fingerprint' of many different coping strategies. Emotion-based strategies can be distinguished in for instance social sharing or seeking solidarity, as well as in denial, the use of alcohol or drugs and risk-taking behaviour. And problem-based forms

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[9] An armed police officer in the U.K, which I spoke on one of the main railway stations in the U.K. shortly after the terrorist bombing in London Underground of September 2017, provided me with an elegant hypothesis on the duration of the reassurance-effect. He estimated this effect to last a few days, to a week maximum. In his professional experience, a weekend seemed to make the difference: he supposed that the reassurance effect lasted for rest of the days of the working week that people had to keep travelling. After a weekend in which people did not have to travel – and thus had been able to distance themselves somewhat from the perceived threat – the effect returned to normal. Based on the findings thus far, I find this a very charming and plausible hypothesis that deserves more research.

[10] Based on both Collins phases and the earlier interviews with police officers, I intended to repeat the survey after a week, hypothesizing that we would then come to opposite findings. Probably prudent, the special police unit had already been withdrawn then.

of coping result can be recognized in for instance in the avoidance of situations that are perceived as risky, in hostility towards other people that (how wrongful that may be) are perceived as associated to the terrorists or in shifts in political preferences. Those effects can again be seen as *direct effects*, while they in turn elicit *follow-up effects*, such as in social cohesion, in confidence in leadership, in the economy or on politics and policies. Some of these may be short-lived, while others have longer lasting effects. Quite often, these effects may be considered dysfunctional at the collective level, while it must not be forgotten that that is exactly what terrorists are aiming for.

The effects of fear of terrorism furthermore contain indications of the presumed circularity of the process in which perceptions of security form. In which 'old cues' (a left bag, a foreign-looking man with a beard) suddenly are noticed more quickly and with a different meaning and new cues (such as security-measures to reassure) are introduced in reaction to the initial shock. Collin's (2004) phases give support to the curvilinear pattern in perceptions of security that was hypothesized in chapter 3, while the effects that have been described give reason to assume that these change over the course of the different phases. Finally, in the description of the effects becomes visible once again that the same impulse can create opposite effects, where this time that became also visible in the effectivity of interventions over time.

Reflecting on the effects of fear of terrorism, the metaphor of *the stone in the pond of society* seems even more adequate than in the case of fear of crime. A major terrorist attack shocks whole societies at the same time, as the splash of a huge stone in the pond, first creating huge waves, that slowly decrease to ripples over time: less visible, but not always completely disappearing. In view of this, it strikes me as even more remarkable that fear of terrorism, its effects, and the way these can be mitigated have up to now been an under researched subject within counter-terrorism studies.

6.5   Effects of 'fear of cybercrime'

A last exploration of effects is of another 'new fear' - cybercrime. As mentioned before, knowledge about this form of perceptions of security is still scarce, with even fewer publications that focus on the *effects* of cybercrime related security perceptions. Searching in more varied ways - using different keywords and by 'snowballing' - resulted in the discovery of some more publications, but still far less than is the case in publications on traditional fear of crime. Of course, this must at least in part be attributed to the relative short timespan that this type of crime has been in existence.

Available studies mostly describe (the effects of) security perceptions related to specific types of cyberthreats, such as cyber-harassment, cyberbullying, cyberstalking, and fear of identity theft. They describe different forms of coping with the perceived risk of such forms

of cybercrime, and of the cognitive and affective consequences of victimization. Observed effects resemble those of traditional fear of crime: affecting perceptions, attitudes and behaviour and covering various domains. Fear of victimization of cyberbullying for instance is observed to affect *wellbeing and health* (OBrien, 2010; Šléglová and Cerna, 2011; Näsi et al., 2015) and to diminish the *freedom of movement* while using the internet or social media, avoiding situations that are perceived as risky (Degen, Huveneers and Kooij, 2011; Bewsell, 2012; Jong, 2016; Riek, Böhme and Moore, 2016). As may be expected, people adopt forms of *security* to diminish the perceived risk of victimization, using technical defences such as virus scanners and timely updates of operating software (Šléglová and Cerna, 2011; van Schaik et al., 2017). Perceived cybercrime has been observed to affect *social behaviour and social cohesion* as well. The way this occurs takes on different forms. On the one hand it has been found that (fear of) victimization erodes interpersonal trust and increases distrust, thus potentially affecting social cohesion (Šléglová and Cerna, 2011; Näsi et al., 2015). On the other hand, seeking social support is one of the most-used coping strategies observed among victims of cybercrime (see Pereira et al., 2016 for an overview). Fear of cybercrime can have *economic consequences* as well. Perceptions of security of consumers are a vital factor for the development and commercial viability of e-commerce (Kim et al., 2010; Degen, Huveneers and Kooij, 2011; Roberts, Indermaur and Spiranovic, 2012; Lagazio, Sherif and Cushman, 2014) and have led to the emergence of a whole cyber-security industry in the last decades (Craig, Shackelford and Hiller, 2015; Coventry and Branley, 2018). *Police and the criminal justice system* appear to have been slow in adapting to the new perceived criminal threats and the role that the public may expect in support. Several studies describe how police are not seen by the public as a 'natural partner' to turn to in case of victimization of cybercrime (Awan and Zempi, 2015; Bidgoli, Knijnenburg and Grossklags, 2016) .

In one study I conducted within the context of this thesis we explored the perceptions of, attitudes towards, experiences with and effects of one particular cyber-related threat: that of *exposing* or '*slutshaming'* of students. In this qualitative study, based on (82) interviews with students of different ethnic backgrounds, we found that fear and anxiety related to this type of 'crime'[11] was especially high among students with a cultural background in which honour and shame played an important role (cf. students of Turkish, Moroccan, or Surinam-Hindustan background). We found effects on wellbeing and health, freedom of movement and expression, protective behaviour, social cohesion (mostly in the form of withdrawal). We also found that police and the criminal justice system were not seen by most students as institutions who could provide help and security. On the contrary: involvement of these parties was often considered as 'making matters worse' (Schram, De Jong and Eysink Smeets, 2020).

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[11] In the Netherlands, this behaviour is not (yet) a crime as such, but elements of this – at least as morally apprehensive considered – behaviour can be punishable by law.

6.6   Reinforcement when fears are in sync?

Perceptions of insecurity can lead to violence, social unrest, and even violent uprising (Van Hoek, Kleuver and Soomeren, 2007; Bakker and De Graaf, 2014; Garcia and Geva, 2014; Gross, 2016; Gaston, Cunningham and Gillezeau, 2019). One of the sub studies gave reason to suppose that different perceptions of security can reinforce one another, thus increasing the chance of such unrest. We performed an explorative mixed methods study of the concern, worry and fears of (parts of) the Dutch public about the influx of refugees in 2015 (Eysink Smeets and Boot, 2017b). Along with these concerns, worries and fears, a rise was observed in threats and intimidation of local administrators (especially mayors) and of hate crimes against Muslims (Eysink Smeets and Flight, 2020). In specific places, civil unrest was observed as well, such as in the form of the violent disturbance of a meeting of a local council.

Our findings seem to fit with those of Postmes et al. (2014, 2013) on conditions under which collective discontent can develop into large scale unrest. In our study, we found that an *upper current* of morally loaded concerns, worries and fears on the influx of refugees seemed to have touched on a societal *undercurrent* of pre-existing, again morally loaded dissatisfactions and concerns about minorities, that in recent years in the Netherlands have been overrepresented in registered crime, and on worries and fears on the new wave of (Muslim-inspired) terrorist attacks of that time. In this way, fear of crime, fear of terrorism and fear of (cr)immigration seemed to have reinforced each other, mingling in one, more intensive cocktail of fears, worries and anxieties, influenced by (and, in turn influencing) more existential fears on the cultural threat of Dutch identity as well, with polarization as an important effect. Following Postmes et al, this combination of upper and undercurrents could lead to social unrest, when three conditions are met: the legitimacy of public leadership is perceived as low, and a suitable *trigger* and a suitable *opportunity* are present.

When we look at more recent examples of (violent) social unrest, we can often observe the combination of these conditions. Take the unrest of 2019 in the U.S. after the killing of George Floyd. Here it is not difficult to see an undercurrent of long-existing fear of the police among African Americans, with broad discontent about racial abuse, ethnic profiling, and police shootings. That undercurrent holds an even deeper lying layer of discontent on discrimination and segregation, imprinted in collective memory. In 2019, the corona-pandemic shook the world and the U.S, where, for multiple reasons it hit the African American community again more than (most) white Americans. I therefore consider it plausible that the *upper current* here was formed by the fear, anxiety, and stress that many people experienced in the pandemic, but African Americans even harder. Could it be that this combination of layers formed the 'bed' in which the killing of George Floyd landed? At the same time, the graphic video of his death – dispersed in an instant all over the world by social media - 'hit us in the stomach', touching us emotionally, instead of just being rationally affected by a simple line in the news. In circumstances such as these, Postmes'

findings suggest that public leadership that is perceived as legitimate may still act as counterweight, keeping the lid on the public discontent or canalizing that. The American President in theory could have mitigated the emotions and discontent, if not for the fact that in the preceding years, this president had showed himself not to be very sympathetic to the concerns of African Americans on police violence. That meant that his perceived legitimacy on this issue was low, a perception that he only appeared to fuel when the unrest in the U.S. further unrolled.

While the layers of 'fears' and discontent described above formed the fuel that the killing of George Floyd ignited, it is not so hard to distinguish similar layers in the Netherlands that were ignited by George Floyd's death in a similar - more moderate - way. My country has its own issues where it concerns discrimination against ethnic and/or racial minorities, in recent years culminating for instance in heavy debates and protests about *Black Pete.* At the same time, resentment was growing over perceived *ethnic profiling* by the Dutch police and over the perceived inability of the Dutch police to make the police organization more diverse. On top of that, at the time of the killing of George Floyd, on May 25th, 2020 the population of the Netherlands was highly-strung (worried, fearful and stressed) and polarisation-prone, due to the first wave of the corona pandemic and the restrictive measures that were in place (Van der Wiele, 2020). Could it be that here again we see the combination of under and upper currents that explain why the killing of George Floyd formed the trigger for widespread protests[12] in the Netherlands as well?

In this age of social media, these 'new' media can substantially accelerate the fulfilment of conditions in which social unrest can develop. The spread of news progresses much quicker than before and – due to the presence of visual content – can have more emotional impact. 'Echo chambers' or 'bubbles' of likeminded individuals can have an eroding effect on the perceived legitimacy of public authorities, reinforced or not by the (deliberate) spread of 'misinformation. Social media can further increase *opportunity* in itself: acting as a means for rapid organisation of collective expressions of discontent, including the rapid mobilisation of more participants. It is these same characteristics that may facilitate the occurrence of the *micro panics* I described in chapter 4.

6.7   Functionality revisited: *functional…. to whom?*

In the previous paragraphs I described how perceptions of security can be described by 'a stone in the pond of society', due to the effects they can have on so varied aspects everyday life. These effects are sometimes functional, sometimes dysfunctional for the individuals, communities or societies that experience these. Unfortunately, the working of perceptions of security as the stone in the pond of everyday life makes those perceptions

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[12] That in The Netherlands fortunately did not lead to riots.

very functional *to others* as well, as they provide an attractive means of manipulation those individuals, communities, and societies as well.

The use of fear of crime in politics

In the end of 2020, the then U.S. president Donald Trump was fighting for a second term of his presidency. A strong appeal on law & order was part of his campaign, in which the President presented many 'facts' or 'claims' that others saw as an intentional and exaggerated form of fearmongering for electoral reasons (cf. Bennett, 2020). When he nonetheless lost the elections, he kept repeating to his followers that the elections were rigged, that officials, media, and courts that concluded otherwise could not be trusted, that widespread fraud had occurred and that if this was not corrected the country would be unrightfully ruled by communists through which chaos would await and Americans would lose their freedom. In the beginning of January 2021, this culminated in the violent storming of Capitol Hill by a mob of his followers, in an attempt to force the American legislators not to give the victory to his competitor, president-elect Joe Biden. It appears that Trump created under his followers the cognitive perception of crime and threat, fuelled the emotions that came with that and called for collective action against the legislators, to "Stop the Steal". What followed, was the unprecedented storming of Capitol Hill. Although some might say that the extent to which this president did this was unprecedented in recent western history, the pattern that fear of crime is amplified in the political process for electoral reasons has been extensively documented across the last two decades (Beckett, 1999, 2018; Brader et al., 2013; Garland, 2001; Lee, 2007; Robin, 2004; Simon, 2007, 2018).

The functionality of fear of crime to others than those who experience that fear is eloquently worded by Simon (2007, pp. 5–6): who observed:

> "People and institutions are seen as acting legitimately when they act to prevent crimes or other troubling behaviours that can be closely analogized to crime […] We can expect people to deploy the category of crime to legitimize interventions that have other motivations".

While in his work Simon focused mainly on the political use of the fear of crime, his remarks on fear of crime as *opportunity* to achieve other interests can be read much broader. An instrumental use of fear of crime and other perceptions of security can be observed among more organizations and individuals in society. Perceptions of security have for instance instrumental value in marketing, negotiations, and security policy itself to bring about (other) attitudinal or behaviour change.

'Fear appeals' in security policy

It seems a widespread belief among security professionals (that raising the public awareness of specific crime or security risks will bring the public to take preventive or protective measures. Mass-communication campaigns are a popular means to do so, notwithstanding the finding that their effect can be considered 'mixed at most' (Mazerolle, 2003). Studies of the so-called *fear-appeal* as means to bring about public behaviour change on risks come to a similar conclusion. The *fear-appeal* is found to be only effective when the public considers the risk in question to be high and serious and when a concrete and feasible action perspective can be presented at the same time. In other cases, the fear appeal will be ineffective, or will even have adverse effects (Ruiters, Kessel, Peters & Kok, 2014). One of the studies that I undertook as part of this thesis yielded findings that were completely in line with these general notions. In this study, we evaluated the effects of a multi-media, multi-channel, and multi-agency campaign over the period 2012-2015 to raise the awareness of the Dutch public to the risk of domestic burglary and to stimulate them to take preventive and protective measures. The study showed that the campaign had indeed raised the risk-awareness of the public substantially, but that that increased awareness had little impact on their willingness to take more measures to prevent burglary. At the same time, people reported that they were more fearful in their own neighbourhood and felt (slightly) less safe in their own homes. As described above, it even led them to report more attempted burglaries in crime and victim surveys, an increase that was not present however in police-recorded crime and in insurance-data.[13] The campaign thus influenced the cognitive and affective dimensions of fear of crime, without the effect on the conative dimension that the campaign had intended to bring about (Eysink Smeets, Jacobs, *et al.*, 2017). As Kok (2016) observed, however: the notion of the (limited) effects of the fear appeal is for many professionals contra-intuitive, which makes the belief in the effectiveness of the fear appeal 'stubborn'.

Fear of crime and (other) institutional purposes

It is well documented that crime and other security threats form an attractive topic for the media. Not because their audience needs to be informed on events and trends, but also because these topics are excellent 'infotainment', attract audience and thus serve institutional or commercial purposes (cf. Callanan, 2005; Gilchrist, Bannister, Ditton, & Farrall, 1998; Nacos, Bloch-Elkon, & Shapiro, 2007). Others describe it in even stronger terms, suggesting that some parts of the media have grown to know so well how amplification and moral panics work, that for these media "moral panics, once the unintended outcome of journalistic practice, seem to have become a goal" (McRobbie and Thornton, 1995, p. 560).

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[13] A plausible explanation for the rise in attempted burglaries as found in the victim surveys was that the publicity campaigns had led people to define events more often as attempted burglary (availability theory as described in chapter 5), while it could not be ruled out that the publicity had also led to an increase of reporting of events that had happened outside the timeframe the survey items asked for ('forward telescoping').

In the years that I was working on this thesis, I noted as well how various *commercial enterprises* in my country*,* especially from the security sector, conveyed inflated and sometimes graphically depicted crime risks in the marketing of their services (see cf. Eysink Smeets, 2014). People and organizations from the criminal justice system use a similar strategy, conveying (sometimes inflated, sometimes lowered[14]) crime risks to the public, in the hope of achieving (other) aims. A striking example I consider the story of *Welcome to fear city* in 1975 (as (re)told by Linneman and Medley (2018)). To put pressure on local government during contractual disputes, a collective of unions of the police, fire department and correctional institutions in New York widely spread a *Survival Guide for Visitors to the City of New York* to gin up fear of crime. The pamphlet…

> …adorned with a menacing grim reaper skull [...] instructed conscious visitors to avoid public transportation, not walk alone, safeguard their property at all times and, if possible, not venture beyond the borough of Manhattan or even out of doors past 6pm. (Linnemann and Medley, 2018, p. 68).

The pamphlet was presented as a product of a – thus far unknown - Council for Public Safety, leaving unclear that it was the unions that were behind it.

One could of course consider this just a 'freak example'. In several of the studies that contributed to this thesis I came to a different conclusion however, at least where it concerns the situation in my country in recent years. I observed for instance how a police union, especially around the time that they were negotiating on a new collective labour agreement, actively made exaggerated claims about the development of crime and security in the Netherlands in the media and facilitated a survey among their members that was so suggestive that it could only lead to alarmist findings on the state of security (Eysink Smeets, 2019b). In two other sub studies, I found that the Dutch police itself 'span' news on violence against police officers and on New Year's Eve violence that the public received a skewed (e.g., exaggerated) impression of what was actually going on (Eysink Smeets, 2019c; Van der Mee, 2019). Sometimes the interest behind it seemed to be to put pressure on a new cabinet 'in formation', sometimes to influence public opinion to bring change to the issue in question.[15]

It is interesting to see these findings from the perspective of Kasperson's amplification framework, while the amplification by the various actors is rooted in Simon's (2018)

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[14] See for instance Eterno & Silverman (2012) and Eterno, Verma, & Silverman (2014) on New York crime statistics.

[15] Interestingly, in conversations with union representatives or police officers involved, possible secondary effects of their actions on the public (such as skewed perceptions of security, increased punitiveness, diminished credibility of police statistics or an increase in violence) were often not taken into consideration or considered to be less important than the primary aim: 'the goal justifies the means'.

'interests that have other motivations'. Consciously or subconsciously, intentionally or non-intentionally, these actors 'feed the fear of crime' (Callanan, 2005) in a way that is functional for *their* purposes, ignoring that the effects for the public can be dysfunctional.

6.7.1 Functionality *in extremis:* fear(s) of crime as weapon

Above, I described the *instrumental* use of perceptions of security by 'regular' institutions. Legitimate institutions, operating within the rule of law, that use perceptions of security as lever or crowbar to serve their purposes. Other organizations, institutions, or individuals, operating outside the rule of law, use perceptions of security too to serve their aims, but in a more extreme form. They do thus by instilling fear and other perceptions more or less as a *weapon*. I distinguish at least four different groups of actors where this can be observed (and could be observed in the period in which I developed this thesis): (1) terrorists, (2) criminals and criminal networks, (3) activists, and (4) foreign powers in the course of geopolitical strategies.

Terrorists. As mentioned above, the essence of terrorism is to instil 'fear' in a population for religious, ideological, or political reasons. The aim is to destabilize a society and/or its institutions, often as intermediary goal to further their interests. Overseeing the major terrorist attacks the (western) world experienced in the period of my research, one could say that terrorists 'work the sweet spots' of theory on the formation of perceptions of security very well. Using for instance the dread-factor, the numbers and the unpredictability and uncontrollability of Slovic' psychometric paradigm.[16] Or, as ISIS did, by creating temporal, geographical, social and hypothetical proximity of the attacks, a sophisticated use of social media, and an almost Hollywood-like styling[17]. After the initial cue of a terrorist attack, they let Kasperson's amplification framework do the rest of the work to convey and increase the fear.

Criminals and criminal organizations can use similar tactics to achieve their aims. To coerce people to cooperate with illegal activities, to pay for protection, to refrain from intervening in their activities or to give information to the police or the criminal justice system (Collins, 2008; Dedel, 2006; Eysink Smeets, Bervoets, et al., 2013). Strategies such as these are used by organized crime, but sometimes by disorderly or criminal youth groups in their neighbourhood as well, just as by perpetrators of domestic violence (van der Veen and Bogaerts, 2010; Eysink Smeets and Bervoets, 2011; Eysink Smeets, Bervoets, *et al.*, 2013).

Individuals and/or activist groups of individuals use fear (in the form of threats, intimidation, and actual violence) against politicians, administrators, or journalists to

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[16] See paragraph 4.3.

[17] See for instance the way ISIS presented the execution of a captured Jordanian pilot in 2015. See for commentary on this style of execution cf. https://www.rand.org/blog/2015/02/experts-react-to-isiss-gruesome-execution-of-jordanian.html.

influence decisions or media-coverage. In one of the research studies that contributed to this thesis, we studied recent trends in violence in different sectors of Dutch society (Eysink Smeets and Flight, 2020). Politicians and (local) administrators perceived aggression against them to be increasing in recent years, often by means of social media threats. Intimidation of journalists had risen between 2012 and 2017, the same was considered probable for female opinion leaders/columnists (Odekerken and Brenninkmeijer, 2017; Eysink Smeets and Flight, 2020). Krook (2018) observed a global rising trend in violence against female politicians.

Foreign powers Lastly, especially since the proliferation of social media in combination with social and geopolitical tensions, we have to take into account that (groups of) individuals and state actors make use of disinformation and *trolling* to influence (amongst others) perceptions of security (Tang *et al.*, 2014; Bayer and et al, 2018). This for instance in forms of (hidden) informational-psychological warfare, to obtain the upper hand in conflict. Military use of such tactics have their own theoretical foundations, such as Reflexive Control Theory (RCT), originally developed by the Russian scientist Lefebvre (Klerks, 2020). The definition of *reflexive control* leaves no room for misunderstanding: "a means of conveying to a partner or an opponent specially prepared information to incline him to voluntarily make the predetermined decision desired by the initiator of the action" (Thomas, 2004, cit. in Klerks, 2020, p. 106).

6.8   Conclusions

The exploration of effects of perceptions of security as described in this chapter shows that the body of knowledge on these effects is not well advanced, and unevenly spread over the different 'fears'. Nonetheless, some core-features are clearly identifiable. With primary effects, that can set (chains of) follow-up effects in motion, at all aggregation levels. The primary effects reflect the coping strategies that were described in the previous chapters; problem-based and emotion-based, with the variety of their sub forms. What also became visible is the importance of context in the formation of these effects, even to the extent that a similar stimulus can yield inverse effects, depending on the contexts. The formation of effects can therefore once again be seen as the result of a transactional process.

A consistent pattern starts to emerge in the domains in which these effects manifest themselves. Covering wellbeing and health; freedom of movement and expression; prevention and protection; social quality and participation; the physical environment; economy; policing, security, and the criminal justice system; politics and policy; and crime, disorder and fear and itself. Following theory, in the description of effects the concept of *emergence* can be observed as well. In the emergence of collective or cultural manifestations of fears of crime for instance, in the emergence of organizations, or in the condensing of perceptions of security in completely different domains of society, such as in

urban planning and architecture. Lastly, perceptions of security have effects at the level of culture: transcending in cultural trends such as securitization or a culture of control.

This variety of domains (and aggregation levels) brought me to the conceptualisation of perceptions of security as *a stone in the pond of everyday life.* In which small stones cause small ripples, but big stones cause large waves, thus bringing the whole pond in turmoil. Complexity theory warns though that even small ripples - small changes in behaviour, attitudes, feelings – eventually can set of large and lasting changes in a system. Just like they can spread perceptions of insecurity further, as a form of symbolic communication through Granovetter's (1973) weak ties.

In the *process-oriented perspective on perceptions of security* that I propose in this thesis, the starting point lays in the perception of cues in a variety of domains. This chapter showed that the effects of these perceptions feed back into all of these domains. In this way, they change the available cues (and the perception of these cues), thus influencing the (re)appraisal of risk or threat and the (re)appraisal of control. Therefore, the process in which perceptions of security form must be seen as *circular by definition,* and due to which perceptions of security are *dynamic by nature*. In the same line of reasoning, it can be argued that in the transactional process in which perceptions of security form, the causal relations between the constituting (f)actors are dynamic by nature as well.

Due to their effects, perceptions of security can be considered as functional phenomena, as they guide us in keeping out of harm's way. The evolutionary process even tends us to 'overreact' to perceived threats and to be extra wary in times of change. In contemporary society, perceptions of security may still be very functional to the individual as, again, they help us to steer out of harm's way, often without further affecting our wellbeing or other interests. This may change though when our cognitive and affective perceptions of risk are skewed and/or when our behavioural reactions – and their follow-up effects - are not proportionate to the actual risk or harm in question. Then, the 'cost-benefit ratio' may change, and our perceptions can become dysfunctional or problematic. There is reason to assume that the distinction between functional and dysfunctional cannot be found on a linear continuum but is the result of a *tipping point* when a threshold is surpassed. What constitutes that threshold under what circumstances deserves further research.

A further point of attention is that (the effects of) our perceptions of security can be functional at the individual level, but dysfunctional at the collective level (or vice-versa). This is closely related to the observation that perceptions of security have *instrumental value* for a wide range of actors other than those who perceive. Legitimate actors, such as politicians, professionals, and the police, have been observed to manipulate aspects of perceptions of security to achieve goals that may sometimes be related to legitimate goals of security, but sometimes are related to their own personal or institutional goals. This can lead to the paradoxical situation where these actors are trying to mitigate for instance fear of crime with one hand, while feeding the same fear with the other. A second group can be

distinguished as well, of more illegitimate actors such as terrorists, foreign powers, activists, or criminal groups. These actors seek to use perceptions of security indeed as the stone in the pond, instilling 'fears' to intimidate, coerce or destabilize. Major detrimental consequences, therefore, that make it the more remarkable that on this (ab)use of perceptions of security too, the body of knowledge is still thin.

7 Longitudinal trends: the fear drop and fear change in the western world

7.1 Introduction

If perceptions of security can have such varied and sometimes detrimental effects as described in the previous chapter, it becomes even more pressing to know more about the prevalence of these perceptions, and about the longitudinal trends in this prevalence in particular. In recent decades, the western world has seen a crime drop (Blumstein, 2006) Could that mean that fear of crime has gone down as well? Or was that prevented by the the criminological maxim I described in chapter 1, that fear of crime goes up when crime goes up but does not come down when crime comes down. From the theoretical notions presented in the previous chapters, the validity of that maxim can be doubted. But what do the empirical data on fear of crime have to say? The crime drop is not the only trend in the security landscape of the last decades. New threats and new fears have entered the field as well. What do we know about their prevalence over time?

In this chapter, I will therefore first explore prevalence and trends in the traditional fear of crime. Of course, one cannot discuss that without paying attention to how they are measured. Therefore, I describe the way fear of crime is measured, followed by what is known on the prevalence of these fears. Then I will shift my attention to longitudinal trends in fear of crime. As an explorative exercise, longitudinal data on fear of crime from 136 countries were brought together in a Fear of Crime Trend Index to form an impression of the longitudinal trends in these data. In contrast to a traditional PhD perhaps[1], I will describe the methods used to collect and analyse these data in the text of this chapter, as I consider the wealth of data found and the way we were able to use these as a finding in itself. After that, I will sketch what is known about the longitudinal trends in the prevalence of 'newer fears' and compare these trends with the longitudinal trends in fear of crime. I will end this chapter with some overall conclusions.

7.2 On measurement and prevalence[2]

The measurement and prevalence of 'traditional' fear of crime have been the focus of a wealth of literature over the last decades (cf. Farrall, 2004; Ferraro & Grange, 1987; Emily Gray, Jackson, & Farrall, 2009; Lurigio & Staton, 2019; Pleysier, 2008a; Spithoven, 2017; Vanderveen, 2006). Therefore, I will just summarize the key points on these issues. Less is

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[1] In which the methods used are more commonly described in a separate methods-chapter.

[2] Some parts of this text are an ameliorated, more extensive version of the text of a publication on the prototype of the Fear of Crime Trend Index as undertaken as part of this thesis (Eysink Smeets & Foekens, 2018).

written on measurement and prevalence of new fears, and so these issues will be addressed somewhat more extensively, just as with the issue of monitoring fear of crime over time.

The way fear of crime can be measured in a valid and reliable way has been subject of heavy debate almost from the onset of the studies of fear of crime. Consensus grew that the multifaceted fear of crime cannot be measured adequately by using just a single survey item - such as the classic survey item[3]: *how safe do you feel when walking alone in your neighborhood at night?* - so gradually a broader set of items evolved that tried to grasp fear of crime in all its complexity (see, for example, A. Barker & Crawford, 2006; Ferraro & Grange, 1987; Gabriel & Greve, 2003; E. Gray, Jackson & Farrall, 2008; Emily Gray, Jackson & Farrall, 2011; Jackson & Kuha, 2014; Pauwels, 2005; Vanderveen, 2006). The conceptualisation and measurement issues are far from being crystallised, which made Ditton *et al.* (2000, p. 154) remark that "the so-called fear of crime is − to an unknown degree − a function of the types of questions that are asked, and the way they are posed". Van der Veen (2006) indicated two different ways forward. The first is to continue with the traditional indicators and research items, but with an increased awareness of the fact that they only measure a single sub-aspect of the umbrella concept. Consequently, valid and reliable results in her opinion can only be achieved by working with a well-thought-through combination of different indicators (see also cf. Hinkle, 2015). The second is the development of an entirely new set of research instruments, more firmly rooted in theory than was the case previously. In this line of thinking, other authors point to the necessity to incorporate theoretical notions and experiences from other disciplines, such as from general survey investigations, the psychology of the survey response and the study of everyday emotions (see cf. Bug, Kraus & Walenda (2015), Gray, Jackson & Farrall (2009) or Pleysier (2008)). They also translated this in action, leading to experiments with new research tools or methodology, the results of which may gradually trickle down in research tools used elsewhere, but cannot be considered generally accepted yet (cf. Farrall, Gray and Jackson, 2006a; Gray, Jackson and Farrall, 2008, 2011b; Riccardo, 2016; Spithoven, 2017).

As mentioned earlier, the debate continues, not only on which items are needed in what kind of surveys, but also on whether surveys in themselves - or other quantitative research methods - are able to 'capture' public fear of crime in all its dimensions reliably and valid enough. More and more, fear of crime researchers tend to answer that question negatively and make a plea for the use of 'mixed methods' (Richards and Lee, 2018; Vanderveen, 2018; Walklate, 2018). At the same time, the digital age opens the door towards completely new forms of measurement, for instance by the use of apps or Virtual Reality (Neale *et al.*, 2004; Toet and van Schaik, 2012), analysis of social media (Baars & Eysink Smeets, 2016; Eysink Smeets, Loeffen, & Baars, 2016; Jong & Dückers, 2016; Rieckmann & Schanze, 2015;

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[3] In various variations still used in many surveys up to the day of today.

Wardman, 2018) and the use of 'Big Data' (Chan and Bennett Moses, 2015; Stephens-Davidowitz, 2017; Williams, Burnap and Sloan, 2017).

7.2.1 On prevalence

Summarizing what is known about the prevalence of traditional fear of crime from existing research (quantitative, qualitative, and mixed methods research combined), it looks as though, for a substantial part of the population in many countries, fear of crime is a common aspect of everyday life. In most cases this consists of a perception of certain risks and of concerns and worries about crime in general in society, as such of perceptions of maybe worrisome, but distant threats. The part of the population that experiences fear of crime at a more personal level, with an intensity and valence that may have noticeable personal impact, is in most (western) countries much smaller. As could be expected from the way perceptions of security form, a great variation is found at individual level, when for instance personal characteristics are taken into account like age, gender or socio-economic status (Oppelaar and Wittebrood, 2006; Cops and Pleysier, 2011; Hall and Innes, 2011). The same can be noted when we bring the socio-economic or physical characteristics of the neighbourhood where people reside into the equation (Scarborough *et al.*, 2010; Brunton-Smith and Jackson, 2011; Lorenc *et al.*, 2013).

Given the widespread practice of measuring fear of crime using surveys, prevalence is often expressed in a percentage of the population that perceives a risk of victimisation, experiences feelings of unsafety, or that reports avoidance behaviour. In the Netherlands for instance, in 2017 34% of the population reported feeling unsafe in general 'at least now and then', and 16% of the respondents reported feeling unsafe at least now and then in their own neighbourhood. Various authors of course have stressed already that without additional information it remains unclear what this percentage exactly means, and especially whether it can be seen as a reflection of the number of people for whom fear of crime affects their life in a problematic way (see cf. Gray et al., 2009; Jackson, 2004; Vanderveen, 2006) Furthermore, as just a minor change in survey wording, item sequence or research method (e.g., use of print, telephone, or web-based surveys) can yield substantial differences in found percentages, these percentages must be interpreted with caution. This is by the way a challenge in the measurement of all kinds of public perceptions. For that reason, the Netherlands Institute for Social Research started to use *mixed methods* for its – quarterly and grand-scale - *Continuous Research of Public Perspectives*, combining survey data with focus groups, so as to be able to see how the survey data – on fear of crime, and all social issues as well – must be understood and interpreted (cf. Dekker *et al.*, 2017).

7.2.2 Longitudinal trends in fear of crime: a well-kept secret?

Within criminology, the *crime drop* may initially have been a well-kept secret (De Waard, 2017), but the notion that recorded crimes in many countries show a sustained and

substantial decrease over a longer period of time is now widely accepted and discussed (Barker, 2010; Jan van Dijk, 2014; Farrell & Brantingham, 2013; Farrell & Brown, 2016; Farrell, Tilley, Tseloni & Mailley, 2008; Hopkins, 2016; Lehti, 2014; Marlow, 2014; Rosenfeld & Messner, 2009; Skogan, 2011; J Van Dijk, Tseloni & Farrell, 2012; von Hofer, 2014). The longitudinal trends of *fear* of crime bear all the hallmarks, however, of a similar well-kept secret as De Waard described in relation to the crime drop. Studies of these temporal trends are rare, leaving plenty of room for a variety of – sometimes contradictory – observations or hypotheses in the literature. Before the millennium, Warr (1993) for instance, described a relative stability in fear of crime in the United States. Ditton *et al* (2000) observed a similar pattern, in a period where recorded crime was going down. Around that time, other authors[4] observed similar inconsistencies between the trends in crime and fear of crime, which made Innes & Fielding speak of a *reassurance gap* (ACPO, 2001). Some years later, Renauer (2009) wondered 'why people of Oregon are not aware of the crime drop', while Davis & Dossetor (2010) noted an *increase* of concern about (specific) crimes among the Australian population, while the crime rates for those offences *decreased.* As mentioned before, these patterns did not surprise Zimring (in Beam, 2011 p. 1) as he observed that '*it's typical for people to ignore drops in crime*'.

Some of these observations or hypotheses were ousted in the beginning of this millennium, which opens the possibility that they were a proper reflection of the situation at that time, while losing their validity over time when the trend changed. Skogan (2011) was one of the first to come with a different observation. Examining both the development of crime and security perceptions, he pointed out that the available data at the time did not go much beyond a few trends such as those described by pollsters, and that very little was known about the real over-time dynamics of the fear of crime. Based on the empirical data from his own study, Skogan questioned the prevailing view 'that fear of crime inevitably ratchets up; it also can go down, and dramatically so' (Skogan, 2011, p. 120).

In various sub studies undertaken in the course of this thesis, I came to a similar conclusion. In mixed methods studies undertaken in the Dutch cities of Rotterdam and Eindhoven, I observed that the prevalence of fear of crime in these cities had decreased substantially over time, as well as that the public in these cities certainly were aware of the falling crime rates in their city or neighbourhoods (and appreciative of efforts of local government to achieve that (Eysink Smeets, 2016; Eysink Smeets & Schram, 2015)). Where I saw that fear of crime had increased in a specific city or neighbourhood, I also observed that this increase was mostly temporary, in deviation from general trend in the surrounding region and could be attributed to specific local factors (Eysink Smeets and Schram, 2015b, 2016b; Schram, Eysink Smeets and Hendriks, 2021). In preliminary studies on (inter)national trends in fear of crime that I undertook within the framework of this thesis as well - which I will describe in more depth in paragraph 7.4) I again saw convincing signs of a substantial and substantial

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[4] Cf. Dittmann (2005), Hope (2003) and Innes & Fielding (2002).

decrease of fear of crime drop over time, now not only in Dutch cities, but in many countries of the western world. Gray (2018) and Hough (2018) presumed the same: that fear of crime had decreased in recent decades.

7.3   From measurement to monitoring

In this thesis I define the measurement of fear of crime, as described in the paragraph above, as the determination of the prevalence (level, intensity, valance) of constructs within the concept of fear of crime at a certain moment in time. By 'monitoring' I mean the tracking of that prevalence over a longer period of time, for instance by measuring constructs of fear of crime yearly, by a similar instrument and research method, at (a) set moment(s) within that year.

In the literature only a few studies can be found that monitor the (inter)national prevalence of fear of crime over a longer period. These studies often focus on one or, at most, a few cities or countries[5], a relatively limited number of years[6] or are based on only one or a few items or indicators.[7] Some authors observe that while criminality falls, a large portion of the public nevertheless believe that crime has recently been on the rise (cf. Hope, 2003; Renauer, 2009; Roberts & Indermauer, 2007). That in the size of that 'large portion' a trend can be observed as well is hardly noted. Oppelaar & Wittebrood (2006) observed however, that although over the years a majority of Dutch respondents believed that crime was increasing, the size of that majority gradually decreased.

One might think that a lack of longitudinal data forms a stumbling block, thus rendering studies on temporal trends impossible. As crime and fear of crime over the years climbed the political agenda, however, more and more countries introduced periodic crime and victim surveys or surveys on different aspects of social life, including fear of crime. More and more organizations included questions on fear of crime in supra-national surveys or, as for instance in the Netherlands, in regular surveys at the local level or at the level of a specific (social or economic) branch, such as education or public transport (cf. Holaind, Boers, Sibov & Slot, 2017; Van Toly, Bijman, & Kans, 2018)

At least 136 countries in the world are now 'covered' by at least one such periodic survey, sometimes organized at the level of a region or continent (e.g. the Latino Barometro, AfroBarometer, Eurobarometer), by a group of cooperating universities and/or countries (cf. International Crime Victim Survey), by a commercial research agency (Gallup World

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[5] (Alemika and Chukuma, 2005; Louw, 2007; Gerber, Hirtenlehner and Jackson, 2010; Skogan, 2011; Vaughn, 2012)

[6] (Jansson, 2006; Mistry, 2004; Weinrath, Clarke and Forde, 2007; Yirmibesoglu and Ergun, 2013)

[7] (Mistry, 2004; Van Dijk, Van Kesteren and Smit, 2005; Barker and Crawford, 2006)

Poll) or by government at the national level (cf. Crime Survey for England & Wales, the General Social Survey in Australia or the French Cadre de Vie et Sécurité).

In some countries, surveys are also held at a lower aggregation level. In the U.K. for instance, the Metropolitan Police performs regular measurement of public perceptions of security and policing, including fear of crime, via the Metropolitan Police Public Attitudes Survey (Stanko and Bradford, 2009; Hohl, Bradford and Stanko, 2010).The Dutch government uses the (yearly, from 2017 onwards two-yearly) *Veiligheidsmonitor,* the Dutch National Crime & Victim survey. This survey is set up in such a way that local governments can opt in, oversampling their jurisdiction, so that a local crime & victim survey can be produced as well. In that same country, many cities have their own City survey as well, often including items on fear of crime.

While data from these periodic surveys are regularly used in criminological research, they have never been used in conjunction with each other, and analysed at a meta-level to distinguish long term trends. The limited comparability of findings may be an important reason why this is the case.

7.3.1   The limited comparability of findings

Above, I already mentioned how the slightest change in survey or item wording, item sequence or research method (e.g., use of print, telephone, or web-based surveys) can yield substantial differences in findings. That makes the comparison of findings from different surveys hazardous. Do the surveys really measure the same construct in the same way? Does percentage A of survey B really have the same meaning as percentage C of survey D?

Dutch policy and research practice over the last decade provide telling examples of the hazards involved. In 2012 for instance changes were made in the survey item sequence and data collection method of the Dutch Crime & Victim Survey. After that change, many items yielded different percentages. The item: 'in the last year: did you ever feel unsafe', on which before the change around 25% of respondents gave a confirmative answer, after the change yielded confirmative answers from 40% of respondents. As this effect was foreseen by the researchers, the change was executed in such a way that *conversion factors* were calculated as well, with which findings from before and after the change could be compared. Researchers from the city of Rotterdam, that used the same data for their local Security Index, chose not to use the conversion factors however, for fear of being accused of (political) manipulation in a sensitive local political climate. As a result, the local Security Index suddenly showed a strong increase in fear of crime, to the concern of local administrators. In response, I performed a (mixed methods) analysis of the development of fear of crime in Rotterdam since the start of the century. A comparison of the data of the Security Index with other available data on the prevalence of fear of crime over the years

soon showed that the increase in the Security Index was indeed a methodological artefact (Eysink Smeets, 2016).

In another Dutch city, a renowned academic research firm presented for the midterm review of local government, a graph depicted in figure 12, with data on the local prevalence of in fear of crime over the period. The graph gave reason to believe that local fear of crime was on the increase. Alarmed, local government commissioned me to perform a rapid analysis of the local perceptions of security. In this analysis, we saw that the presented data were from three different surveys. When the findings of each survey were compared with findings from the same survey only, the increase disappeared and was substituted by a stable situation, a finding that was supported by qualitative research among the population (Eysink Smeets & Schram, 2013).
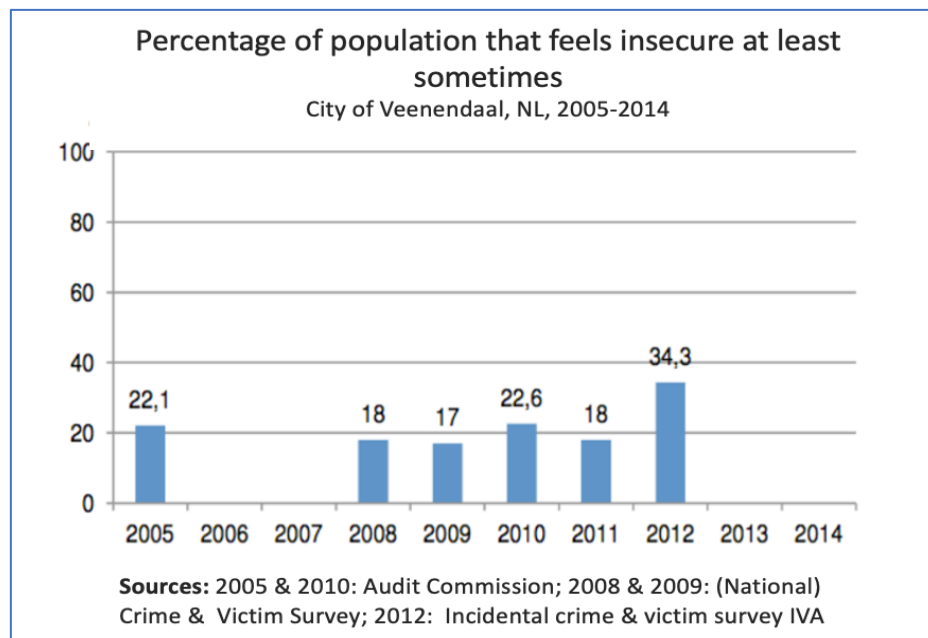
Figure 12 Percentage of inhabitants of Dutch city of Veenendaal that reported to feel at least sometimes insecure in their own neighbourhood, 2005-2014, data from three different surveys: Rekenkamer (2005 and 2010), IVM (2008, 2009), IVA (2012). Although the data combined suggest a rise, the data from each source separately are relatively stable (Eysink Smeets and Schram, 2013).

Such examples show the importance of keeping surveys and survey methods unaltered when measuring longitudinal trends in fear of crime. Other interests may give reason for exactly the opposite, however: to keep up with changes in the security situation (cf. including items on new security challengers) or for instance with changes in the population (cf. changes in communication styles). That brings a paradox to the issue of monitoring long term trends in fear of crime, as there is both a (periodic) necessity to change as well as a necessity not to change at the same time.

7.3.2   The under researched issue of measurement (in)variance

Another issue surrounding the comparison of (international) findings on fear of crime that has remained underexposed is 'measurement invariance', both from a cross-national and temporal perspective. Simply expressed, does the same question in the same circumstances produce the same answer in different countries and/or at different periods in time? Pleysier (2008) emphasised that in much research into fear of crime measurement invariance is often (implicitly) assumed, but rarely tested. Without such an assessment, however, comparing findings on groups, countries, times is a hazardous undertaking - do the measurements really mean the same thing? He investigated measurement invariance in the measurement of fear of crime in the Belgian Security Monitor from a cross-cultural perspective (through an analysis of the findings in the French-speaking and Flemish communities in Belgium) and from a temporal perspective (through an analysis of the measurements taken in 1998 to 2000 and 2002). Using factor correspondence analysis and confirmatory factor analysis via structural equation modelling, Pleysier found the constructs used were invariant from a cross-cultural perspective. From a temporal perspective, however, this was not the case: two of the four indicators used, for example, showed parameter drift in the (limited) period between 1998 and 2002. (Boeck, Hardyns and Pauwels (2014) later conducted a similar exercise on avoidance behaviour among citizens with different demographic characteristics. They found that at least one of the constructs used could only be viewed as partially invariant. Could it be that that this limited temporal invariance is another clue that the meaning of security (and of the sub constructs of perceived security) indeed can change over time, as suggested in chapter 5?

7.4   In search of longitudinal trends in fear of crime

To form a first impression of possible (inter)national trends in fear of crime, I first undertook two small exploratory studies. In these studies, data were collected from a selection of victim surveys and opinion polls from North-Western Europe, the US, Canada, and Australia over the past 20 years. Contrary to the supposed 'stability' of fear of crime, these studies showed significant drops in measured risk perception, worry and fear of crime in a number of countries. This was the case to such an extent, that - in analogy of the *crime drop* – one could speak of a *fear drop* (Eysink Smeets, 2015). These initial studies justified more intensive research on these trends.

To assess longitudinal trends in retrospect, we could only use data from existing sources such as the national and supranational surveys mentioned above. In line with the suggestions of VanderVeen (2006), we considered it necessary to use data on at least three different indicators and items to analyse trends in fear of crime over time. But for how many countries and over what periods would they be available? A search was done for

publicly available longitudinal surveys[8] that included one or more questions concerning the concept of fear of crime. For practical reasons, we focused our search primarily on sources in the English-language[9], and on sources in Dutch and German. For a study such as this, language barriers sometimes form an unfortunate obstacle, as Gerber, Hirtenlehner & Jackson (2010) also pointed out.

7.4.1 Collected (supra)national surveys

Surveys exist at different aggregation levels: at supranational and national level, and in several countries at regional or local level too. As described above, in a country such as The Netherlands these surveys exist at the level of specific sectors in society as well, such as in public transport or education. Within the framework of the present study, only national and supranational data were collected. These were categorized in two types: dedicated crime and victim surveys (such as the British Crime Survey); and surveys covering a broader range of social issues but containing items on (sub-constructs of) fear of crime. Combining these two types with the different aggregation levels results in the classification and overview of collected surveys shown in table 2.

Table 2 Surveys of which data were collected and used in this study

Aggregation Level	Crime & Victim Surveys	Broader Social Surveys[10]
Supranational (7)	• International Crime Victim Survey	• World Value Survey • Gallup World Poll • European Social Survey • Eurobarometer • Afrobarometer • Latinobarómetro
National (29)	• British Crime Survey (UK) • Cadre de vie et sécurité (F) • Crime Survey for England & Wales • Gallup Poll Social Series: Crime • Garda Public Attitudes Survey (IRL) • New Zealand Crime & Safety Survey • Northern Ireland Crime Survey • Schweizerische Sicherheitsbefragung • Scottish Crime and Justice Survey • Swedish Crime Survey • Veiligheidsmonitor (B) • Veiligheidsmonitor[11]NL • Victims of Crime Survey (SA) • Voldsofferundersøgelsen (DK) • Encuesta Nacional de Victimization y Perceptión sobre Seguricad Pública (MEX) • Jamaican National Victimization Survey • Kansallinen uhritukimus (FIN)	• Barométre IRSN (F) • Focus Canada • Gallup Canada • National Household Survey (IRL) • General Social Survey (CAN, AUS, USA) • Annuario Statistico Italiano • Survey on Living Conditions (NOR)

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[8] Surveys that only have a single edition, such as the German Viktimisierungssurvey 2012, were also ignored.

[9] Or at least those with an English-language summary, such as the Swedish Crime Survey (Brå, 2016)

[10] Asia now also has a barometer, though there are yet no long series available.

[11] And predecessors: Integrale Veiligheidsmonitor – Veiligheidsmonitor Rijk – Politiemonitor Bevolking - Enquête Slachtoffers Misdrijven - Enquête Rechtsbescherming en Veiligheid - Permanent Onderzoek Leefsituatie

The supranational studies cover many countries but contain few items about fear of crime. The national studies, certainly the dedicated crime and victim surveys, cover (in total) far fewer countries, but include more items on (sub constructs of) the fear of crime.

The studies show large differences in research method, research question, size of samples and timeframe. For example, in Belgium the most recent Security Monitor available at the time of our review was conducted in 2008 (Van Den Bogaerde, Van den Steen and De Bie, 2009), while in other countries the last available data were from 2015, 2016 or even 2017. Some countries have a series of more or less similar, successive surveys, such as the United Kingdom with the British Crime Survey and its successors, the Netherlands with the *Politie Monitor Bevolking (*Police Population Monitor, 1993 to 2005), the *Veiligheidsmonitor Rijk* (Central Government Security Monitor, 2005-2008), the *Integrale Veiligheidsmonitor* (Integrated Security Monitor, 2009-2011) and the *Veiligheidsmonitor* (Security Monitor, from 2012 onwards). Not only has the name of this Dutch national survey changed over time, but so have the research questions and methodology, which complicates the formation of time series. Comparable differences are discernible with respect to the random samples used. For example, whereas Gallup's US polls sample around 1,000 people (with large reliability margins as a result), we note that surveys in other countries sometimes include tens of thousands of respondents. Finally, not all studies are conducted with the same frequency. The dedicated national studies are often conducted annually, but other studies occur once every four to five years. The International Crime and Victim Survey (ICVS) and the World Value Survey, for example, have long intervals like this between measurements.

The availability of various supranational studies (cf. the International Crime and Victimization Survey ICVS or the World Value Survey) might suggest a certain measure of comparability between countries, owing to their uniform research questions and working method. But due to the scarcity of measurement invariance assessments, there was no certainty on that whatsoever. With respect to the measured differences in time − forming the trends that are key to this chapter− the possibility of measurement variance had to be left open as well, an issue that certainly requires further research.

7.4.2   Five clusters of commonly used indicators

My analysis resulted in a large list of survey items used. Due to the differences in wording discussed earlier, some items may look the same at first glance, but turn out to be quite different on close reading. For example, Gallup Poll asked respondents in the US: *is there any area near where you live – that is, within a mile - where you would be afraid to walk alone at night*? The Scottish Crime and Justice Survey asked respondents in Scotland a question that resembles that: *how safe do you feel walking alone in your local area after dark*? The wording of these questions may look similar, but the exact meaning is different, for instance geographically or psychologically. These items should therefore be treated as

different. Secondly, some items are culturally/country determined and are even asked in a single country only. For example, the Victimization and Crime Survey of South Africa asks respondents: *does the fear of crime prevent you from keeping livestock/poultry outside in the kraal? Or does it prevent you from walking to fetch wood/water?* This question may be appropriate to reflect (the development of) fear of crime in South Africa, but not in Western Europe.

Overall, the collected items relate to the cognitive, affective, and conative dimensions of fear of crime as described in chapter 3. They cover judgements, values, emotions, and behaviours, to perceptions of criminality in general or of to specific crimes (Van der Wurff, 1990) and to different levels of (psychological) proximity and distance. Eventually, the items from the collected surveys were categorized into five main clusters, as depicted in figure 13 and further explained below.
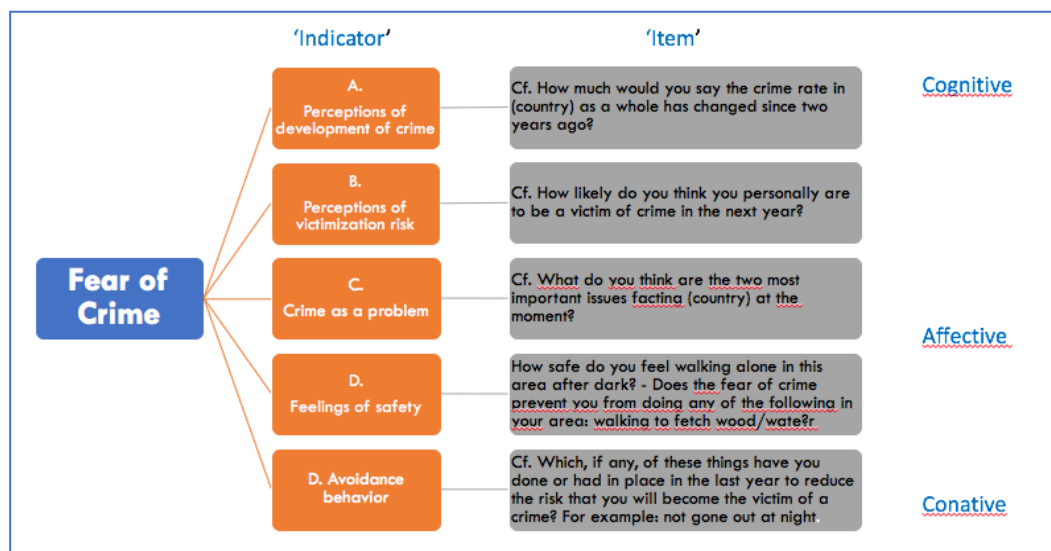
Figure 13 The used items from the collected surveys clustered in five types of indicators of (traditional) fear of crime measured at the individual level.

Cluster A: perceptions of (the level or) development of crime

This first cluster comprises items on the perception of the development of crime in general, in the country or in the neighbourhood. Including for instance those items in which respondents are asked to compare the level of crime to one year ago (US), two years ago (cf. England & Wales) or even three years ago (South Africa). This cluster also holds questions about the perceived prevalence of certain types of (violent and property) crime in the local area.

Cluster B: perceptions of victimisation risk

The second cluster encompasses the perceptions of the risk of falling victim to crime, with items that reflect the perceived likelihood that respondents (themselves, or family members) fall victim of (certain types of) crime, but also on perceived victimization risks in general.

Cluster C: crime as a problem

The third main cluster consists of items that reflect the degree to which the public considers crime to be an important problem: for the country, in their city or neighbourhood or for respondents personally. Items reflecting how far and in what ways respondents consider crime to have effect on their quality of life are positioned in this cluster as well.

It can be debated to what extent items in which respondents are asked about the degree to which they perceive criminality as a problem for their country or for themselves can be considered a reliable indicator. That is due to the way the question is often posed. In several surveys that use this item, respondents are asked to indicate what they perceive as the (e.g., two) most problematic for their country (their city or themselves). In that case, the answers have a *relative* character: the degree to which crime is viewed as one of the most important problems is influenced by what other problems their society, city, or the respondents themselves are perceived to be facing as well. If these are experienced as a more important problem, crime drops on the ranking, although this does not mean that the perceived problematic character of crime itself has changed. Preliminary analyses of the trends in this cluster were fairly consistent with the trends in other main groups, however, so we eventually decided to include these items in the Index. Further on in this chapter I will how that in some (UN-)regions the trends in this cluster are more pronounced than in the other clusters, therefore they are sometimes shown separately as well.

Cluster D: feelings of safety

This cluster is comprised of items that reflect on *worries* about specific type of crimes, including worry about becoming a victim (themselves, sometimes family members or friends as well). Of course, this cluster also includes the items on anxiety or *fear* in the broadest sense; fear when walking alone (in the dark) in your local area, fear in general, feeling fearful when home alone at night, when going out or when using public transport. Items on other feelings about crime, such as anger or disgust, were hardly present in the collected surveys.

Cluster E: avoidance behaviour

The fifth and last cluster, avoidance behaviour, comprises behaviours people report they undertake in relation their fear of crime. The question in the South African survey mentioned above, whether fear of crime prevents respondents from fetching water or wood, is an example of these. Other examples are the avoidance of malls, shops, public transport, or the choice for the use of a taxi or car instead of walking. Sometimes these questions are combined with the question whether this stops people from going out (alone) at night.

As I described before, various authors have concluded that the behavioural dimension is less suited to measuring fear of crime: the link between risk perception, fear and related behaviour is less direct than between the cognitive and the affective dimensions. For that reason, *protective* behaviour, such as target hardening to prevent burglary, was not included in the Index. That behaviour may be understood as an expression of risk or feelings of unsafety, but also as a reflection of the means or possibility to act upon these. We considered that to be less so in the case of avoidance behaviour, an assumption that was later supported by the (high) correlation between the observed trends on this indicator and the other indicators.

7.4.3   Data collection

After relevant items had been identified in each survey, we collected the actual data. The data from many supranational studies (such as the barometers, the ESS and WVS) could be accessed via an online analysis tool. Data from other studies were obtained via the various reports or via online available datasets in Excel-format (c.f. CSEW, NICS and SCJS). This complicated both data collection and analysis because, for example, the reports did not always contain the full data or answer categories. Where applicable the answers were included that described a negative judgement (e.g., 'more crime'). In this way, data series were collected on 1,271 survey items, after a first selection 829 data series regarding the development of (at least one sub-aspect of) the fear of crime were considered valid and reliable enough to be included. The collected data were entered in an Excel file and the items coded. A distinction was made between continent, region, country, type of research, type of item and year to which the item relates. The countries were arranged according to the geographical classification of the United Nations.[12]

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[12] Consulted via http://millenniumindicators.un.org/unsd/methods/m49/m49regin.htm#europe on 8 August 2016. Some countries which regularly participate in European studies are geographically classified as Asian, such as Cyprus, Turkey and Israel.

7.5   Coverage of the collected data

The collected surveys and items cover 136 countries, spread across 19 UN-regions and six continents, as shown in figure 14 below.
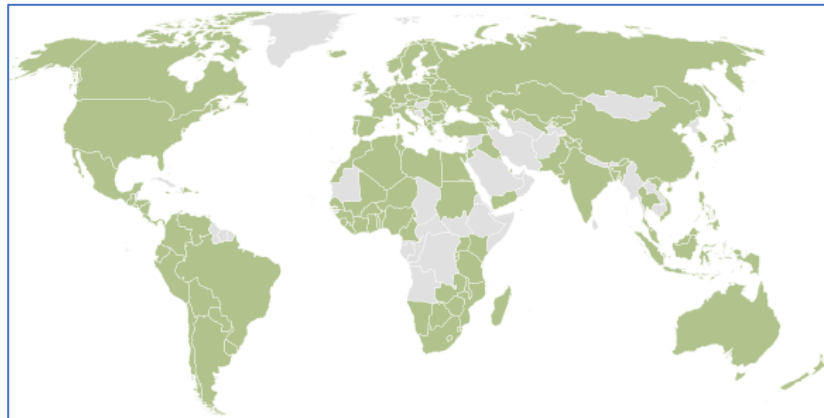
Figure 14 Countries included in the International Fear of Crime Trend Index. Included countries shown in green.

The spread of the available items over countries, regions and continents is not balanced, as shown in figure 15. Asian countries for instance are underrepresented. It cannot be ruled out that the language barrier mentioned before is being felt here.
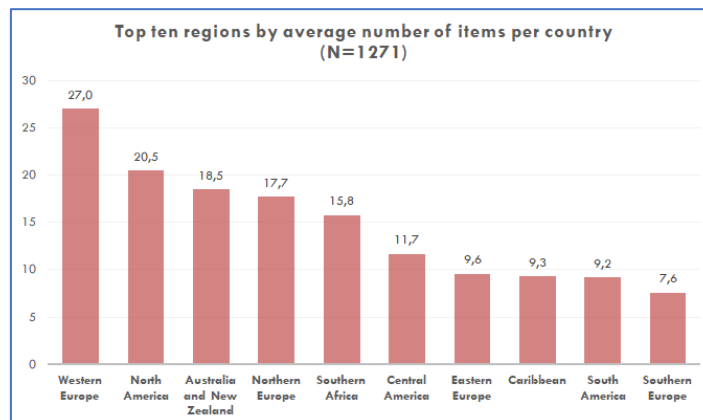
Figure 15 Average number of items per country per UN-region: the ten highest scoring regions.

Figure 16 depicts the number of measurements of fear of crime per country per year, as present in the available data series. It shows that that number has risen steadily in the past decades. Data for the period 1989-1994 are scarce. After 1994, the number of measurements slowly rises, picking up speed after the millennium change, so that over later years, certainly in the period 2005-2015, much more data are available. The waves in the graph can be explained by the supranational studies (such as ICBVS, World Value Survey), which are conducted with an interval of multiple years in many countries simultaneously.
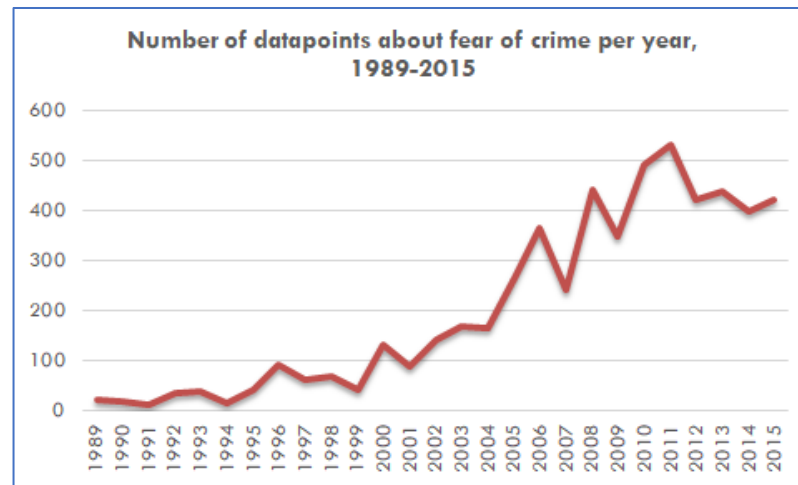
Figure 16 Temporal coverage of the data: number of measurements (=measurement of 1 item in 1 country) per year, period 1989-2015 (N=829)

The items and data series do not evenly cover the five indicators described earlier. A few items were found much more often than others: variants of the 'classic' question on 'feeling safe when walking alone at night' comprise for instance 15 per cent of the total of items. The number of available series per cluster is depicted in figure 17 below.
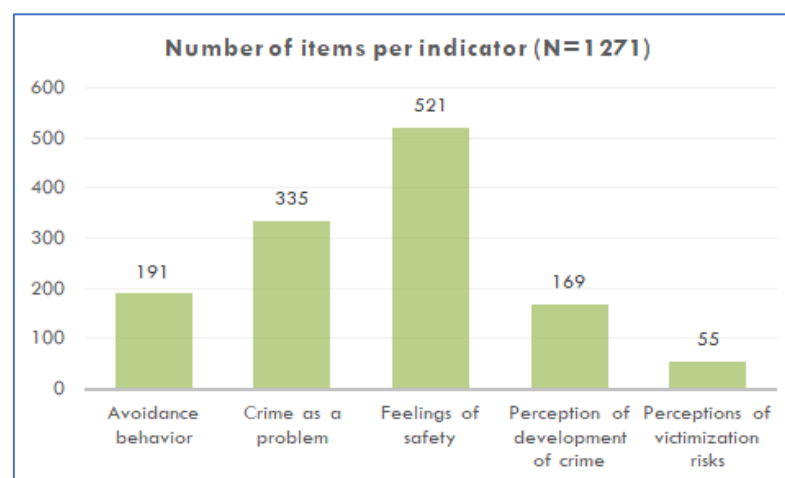
Figure 17 Number of items per indicator (N=1,271)

7.6 Developing a Fear of Crime Trend Index

Owing to differences in the character and wording of items, and research methods in the various surveys, it is not possible to compare findings from the different surveys in a valid and reliable way, at least not where it concerns the prevalence of (sub constructs of) fear of crime in - for instance - different countries. While it may be true that this limitation applies less to supranational studies, due to their use of a standardised working method, these

often contain, as referred to above, just a few indicators, while it is unclear whether they are invariant across different countries.

We considered those limitations less of a concern when the focus was not upon comparisons in *prevalence,* but upon the *trends* in that prevalence and even more when we would only focus upon the *direction* of these trends[13]. That is exactly what I intended to clarify with this study in the first place: can longitudinal trends in fear of crime be distinguished, and if so, in what direction?[14] Working with an Index, which purely expresses the multi-year development of the various indicators on fear of crime, could answer that question, while at least in part countering the limitations referred to above.

In the searches performed within the present study, such an (international) index on fear of crime could not be found yet. A few international indices on other, partly adjoining domains, such as the OECD Better Life Index, (OECD, 2016) have a component relating to fear of crime, but based on a single indicator. At the local level there are several examples of fear of crime indices based on one or more indicators, such as the one-off index that Weinrath, Clarke, & Forde (2007) created for Winnipeg over the years 1984, 1994 and 2004. In 2002, the Dutch city of Rotterdam introduced the *'Security Index',* in which many indicators concerning safety in the city were systematically condensed to produce a single figure on public security in the city (annually, later bi-annually). Fear of crime is a subset in the index based on four indicators: satisfaction with the neighbourhood, perceived probability of the respondent becoming a victim, perceived probability of a member of the respondent's household becoming a victim and avoidance behaviour. The Rotterdam approach was later copied, though with some alterations, in an annual index issued by the city of Amsterdam (from 2003 onwards). Inspired by these local examples, Vergouw, *et al.* (2014) did an exploratory study on the feasibility of national security indices for the Netherlands at the national level as well. On fear of crime, they proposed three sub-indices: a first on perceptions of unsafety, a second on feelings of unsafety, a third on avoidance behaviour. This way, the indices would neatly cover the cognitive, affective and conative dimensions of the fear of crime.

In the present study, an attempt was made to construct an *International Fear of Crime Trend Index.* A first version was developed as a prototype, using a set of 829 data series. The collected data series were grouped in the five clusters described above and according to the countries and UN-regions to which they related. To avoid an Index for a country being founded on just a single item or indicator, the availability of at least three usable data series, divided across at least two indicators was set as a minimum requirement for

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[13] Whether a trend shows a steeper or less steep gradient may for instance be caused by a begin-position, that does not have to influence the direction though.

[14] In a later stage, these trends may than be compared with trends in important determinants of fear of crime, such as the prevalence of crime and disorder or for instance the level of social cohesion. Do they correlate in the way that might be expected from theory and empirical work on the causal relation between the two?

determining an index figure for a country in a specific year. Data series with multiple-year intervals between measurements were provided with imputed values for the intervening years, thus assuming a linear development between two measurements. The data series were then indexed. Because the number of available data series between 1990 and 2015 continues to increase, it was decided to reverse-index the series, thus beginning with the year for which the most recent measurement was available. In the first version of the Index that meant 2015 (2015=100)[15]. Where new data series started in years prior to 2015, the average index figure for the country concerned for that year was used to begin these data series.

In the prototype version, a check was made on the correlation between the trends observed in the five indicator-groups, both at the level of individual countries and at the level, of UN-regions. As a satisfactory amount of correlation was observed, it was decided to express the trend in measured fear of crime in the trend of one 'overall' Index figure per country or region. In some countries and regions indicator C – as described above containing items of a somewhat different character – showed the least correlation, therefore sometimes the Index is given in two versions: with and without indicator C.

Subsequently an index was developed per UN region, based on the data for the countries in that region. This began by calculating an index per cluster based on all available data series per cluster in the region, with the criterion that an index figure would apply for a specific year if at least 50 per cent of the countries from the region concerned had a value available.

An overall index figure was then calculated for the region concerned, based on the weighted average of the various clusters[16]. Finally, an extra check was made to see whether the extent to which the development of the regional indexes reflects the development in trends in the majority of the countries in the region concerned. A further check was made on the effect of an uneven spread of data points over years, to eliminate the possibility that fluctuations in the trend were caused by the differences in 'data-richness' over the years. No indications of a substantial effect of this type were found. See figure 18 for an example.

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[15] In later stages, when more data were added, it has also been chosen to take the most data-rich year, 2008, as index year.

[16] In a next step, weighing should be done as well for population size of the countries included in the index.
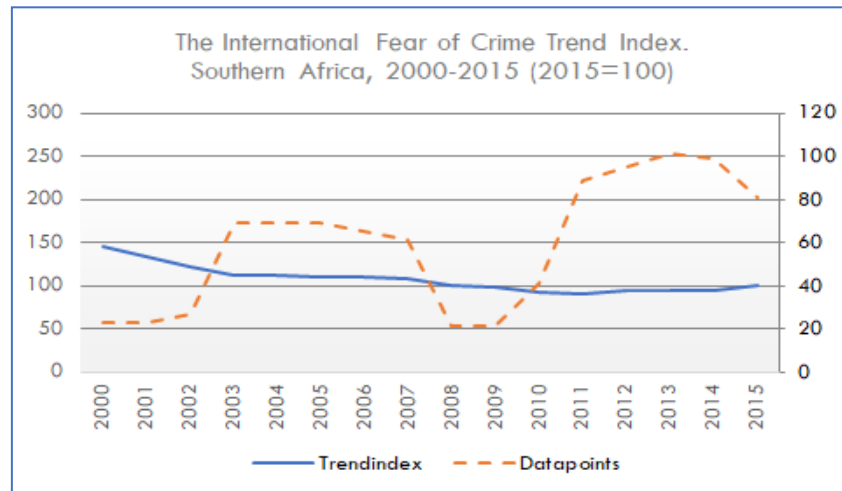
Figure 18 Available data points per year for the countries in the UN-region Southern Africa vs. the Fear of Crime Trend Index for that region, over the period 2000-2015

To elicit feedback, findings of this preliminary exercise were shared in a peer reviewed publication and an academic conference (Eysink Smeets & Foekens, 2017, 2018). In a second stage some refinements were made in the way the index was calculated, meanwhile increasing the amount of included data series - and included countries - to the amounts described before.

7.7   Findings: trends in traditional fear of crime

The exercise described above made it possible to distinguish (the direction of) longitudinal trends in fear of crime, based on available (supra)national surveys. The direction of these trends turns out differently for different parts of the world. The UN-regions that together form the North-western hemisphere show a relatively consistent downwards trend however, thus supporting the notion of a *fear drop*.

7.7.1   Index for the ten most data rich countries

Table 3 gives the Index figures for the ten most data-rich countries for the period 1990-2015, in five-year intervals. The colours indicate the difference with the index in the previous five-year period: red when the Index has risen (meaning a higher level of fear of crime), green when the index has decreased (thus representing a lower level of fear of crime). The colour black is used for the start of the time series or when no change has occurred.

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Table 3 Fear of Crime Trend Index between 1990 and 2015, in five-year intervals, for the ten countries for which the highest number of data series were available, index 2015=100 (red = higher than previous interval, green=lower, black=no change)

Country	1990	1995	2000	2005	2010	2015
1. Netherlands	358	385	305	232	151	100
2. Belgium	156	168	188	178	166	100
3. Ireland	-	-	114	149	110	100
4. Scotland	214	191	150	142	134	100
5. Sweden	-	314	241	344	147	100
6. Switzerland	189	139	125	127	123	100
7. United States	135	168	108	107	104	100
8. New Zealand	-	279	218	217	114	100[17]
9. South Africa	85	111	153	112	91	100
10. Mexico	36	80	89	104	100	100

Before the millennium, the index is rising in more countries than it is falling. That changes around the millennium though, after which the level of fear of crime is decreasing in more countries than that it is increasing. This decrease further accelerates in 2005, towards 2010 as the best year, where measured fear in crime in all ten countries has improved. These figures are at the level of countries, using a rough grid of five-year intervals. In the next paragraphs the index will be presented per year, at the level of different UN-regions.

7.7.2   The shared trend in three regions in the North-Western Hemisphere

As described in chapter 2, fear of crime in the last decades has most often been studied in countries of the North-Western hemisphere, including the UN-regions North America, Western Europe, and Northern Europe. What trends can be observed in the Fear of Crime Trend index of these region?

North America

This UN-region formally includes five countries: Bermuda, Canada, Greenland, Saint-Pierre & Miquelon, and the United States. For the Fear of Crime Trend Index sufficialandent (usable) data series could only be found for the countries with the two largest populations: Canada and the United States. The Fear of Crime Trend Index for these two countries over the period 1989-2015 is given in figure 19. What is striking in the graph is the sharp increase in the mid-nineties of the last century, followed by an even sharper decrease to 2001. After that year, the trend is more or less stable. When indicator C ('crime as a problem') is excluded, the peak in the mid-1990s levels out somewhat, indicating that in that period measured concern was relatively high. The total pattern is strongly influenced

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[17] Due to lack of data for 2015 this is the index for 2014 (New Zealand index 2014=100)

by the pronounced trend in the USA. The trend in Canada is more moderate, somewhat resembling European regions, as described below.
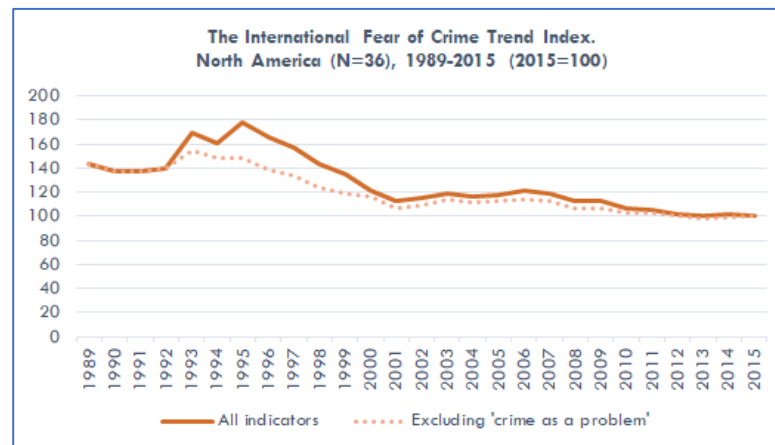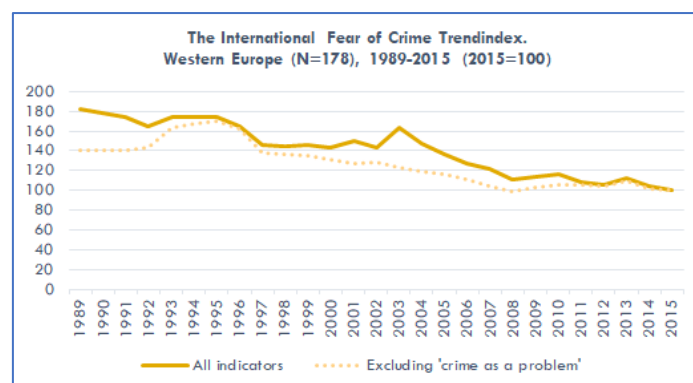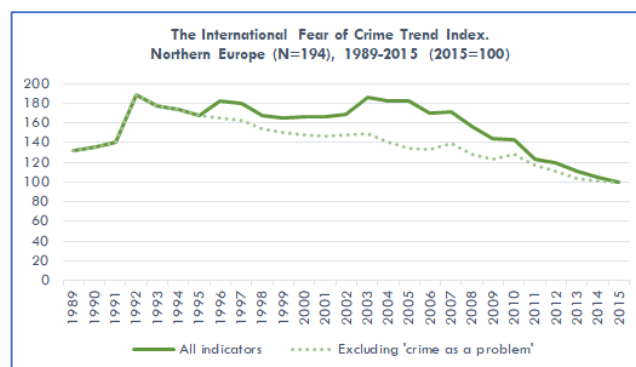

Figure 19 Fear of Crime Trend Index for North America, period 1989-2015, including and excluding indicator C ('crime as a problem')

Western Europe

The UN-region of Western Europe consists of: Austria, Belgium, Germany, France, Luxembourg, Liechtenstein, Monaco, The Netherlands and Switzerland[18]. In the literature it is observed that in these countries perceptions of insecurity do not seem to have improved in the past few decades (Barker & Crawford, 2006; Dittmann, 2005), often based on the development of one or several indicators, observed over a relatively short period of time.

Figure 20 Fear of Crime Trend Index for Western Europe, period 1989-2015, including and excluding indicator C ('crime as a problem')

The Fear of Crime Trend Index indicates a marked fall however from the mid-nineties onwards, over a longer period of time. This fall is especially visible when indicator C ('crime as a problem') is excluded from the Index (see figure 20). When indicator C is included, the

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[18] The smallest of these countries, Liechtenstein, and Monaco, were not included in the assessment owing to their small size.

Index flattens out somewhat from the mid-1990s to the first years of the new millennium, indicating that concern about crime may have been relatively high in that period.

Northern Europe

The UN region Northern Europe consists of Denmark, Estonia, Finland, Iceland, Ireland, Latvia, Lithuania, Norway, United Kingdom and Sweden. After correcting for the available data per country[19], the index for Northern Europe includes a total of 11 countries.

The Fear of Crime Trend Index for this region shows a more or less stable trend between the early 1990s and mid-2000s, after which a steady decline sets in (see figure 21). When again indicator C ('crime as a problem') is excluded, the Fear of Crime Trend Index shows a gradual decline form the mid-1990s onwards, indicating that concern about crime may especially have been prevalent in the early years of the new millennium.

Figure 21 Fear of Crime Trend Index for Northern Europe, period 1989-2015, including and excluding indicator C ('crime as a problem')

The Northwestern Hemisphere overall

Overall, the Fear of Crime Index for these regions in the Northwestern Hemisphere show a relatively high level in (at least) the mid-1990s, after which steady and substantial decline sets in. The time at which that decline occurs differs. For all three regions, the Index in 2015 is lower than it was before: an Index of 100 in 2015, versus - in all three regions - around 180 at its peak level, meaning that the prevalence of fear of crime has almost halved. In all three regions, a period can be distinguished in which indicator C shows as markedly higher than the other indicators, suggesting in that period, public concern about crime was especially high. In the European regions, this period is the early years of the new millennium, in the North American region (especially the U.S.), this period is somewhat earlier.

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[19] Iceland and Latvia did not meet the requirements for available data; The United Kingdom has partially separated data series for the countries that make up this kingdom (England and Wales, Scotland, and Northern Ireland), so that these countries have been counted as separate entities.

7.7.3 Observed trends in two regions in the Southern Hemisphere

South America

Officially, the UN ranks 14 countries as belonging to this region: Argentina, Brazil, Bolivia, Chile, Colombia, Ecuador, the Falkland Islands (Malvinas)*, French Guyana*, Guyana*, Paraguay, Peru, Surinam*, Uruguay, and Venezuela.[20] Most data originate from supranational studies such as the Latinobarómetro and the World Value Survey, mostly covering the period 2003-2015.
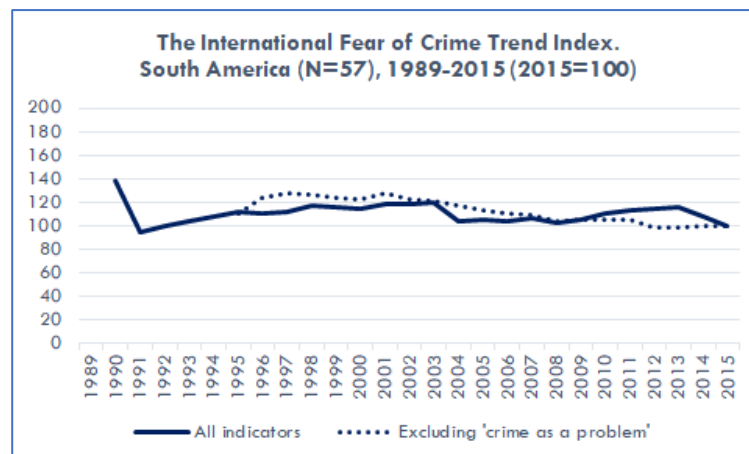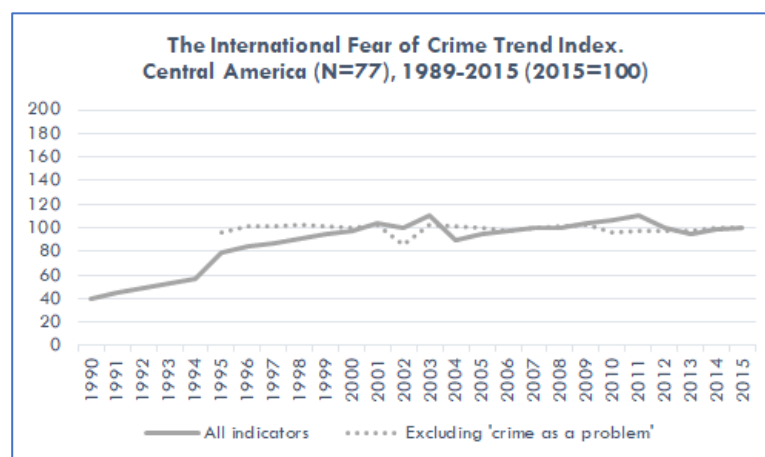

Figure 22 Fear of Crime Trend Index for South America, period 1989-2015, including and excluding indicator C ('crime as a problem')

Overall, the Fear of Crime Trend Index for South America seems to point towards a relatively stable trend over the years (see figure 22). Looking at the trends in the underlying' individual countries however, the relative stability of the Fear of Crime Index for this region turns out to be merely a product of the way the Index is calculated. The Fear of Crime Index for the individual countries in Southern America shows completely different trends: from a strong increase in Bolivia, Peru, and Uruguay (between 2005-2015), to a decrease in Chile, Ecuador, and Venezuela in the same period (in the last two countries after an initial strong rise). Over the same period, the index for Argentina, Colombia and Paraguay is relatively stable. The 'flatline' trend in the graph can therefore be considered misleading, as it hides a great variation in trends at the country level.

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[20] No usable data could be obtained for the (smaller) countries marked with *; consequently, the Fear of Crime Trend Index for this region is based on 10 countries

Central America

The UN region of Central America comprises 8 countries: Belize, Cost Rica, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, and Panama. For this region 77 data series were available, again mostly from supranational surveys, but – in the case of Mexico, from a national survey as well. The Fear of Crime Trend Index for Central America shows a slight increase, that can mostly be attributed to Indicator C ('crime as a problem'). Without this indicator, the pattern is quite stable. Here again though, distinct differences can be noted at the country level.

Figure 23 Fear of Crime Trend Index for Central America, period 1989-2015, including and excluding indicator C ('crime as a problem')

South and Central America overall

The Fear of Crime Trend Index for these regions is mostly stable, which can be seen as a kind of *regression to the mean* at the regional level, while at country level various patterns can be observed: from a distinct increase to a distinct decrease, with other – also more spurious patterns in between.

7.7.4 Differing trends in 'developed' and 'developing' UN-regions

When the available data in the Index are grouped and analysed at the level of developed world and developing regions – following the UN M49-criteria for that somewhat unfortunately worded distinction[21], – this results in a Fear of Crime Trend Index as depicted

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[21] A distinction that the UN stipulates "is intended for statistical convenience and does not express a judgement about the stage reached by a particular country or area in the development process". (https://unstats.un.org/unsd/methodology/m49/, last accessed 24-08-2020). I will further use in this thesis the

in figure 24. The Index for the developed world shows the same decrease described above for the North-western Hemisphere. That decrease starts in the mid-1990s of the last century, pausing somewhat in the early years of this millennium and then continues that decline. Though in timing and gradient the trend in different regions and countries is certainly varied, the overall inclination is widely shared. The pattern thus supports the hypothesis of a *fear drop* (Eysink Smeets, 2015; Eysink Smeets & Vollaard, 2015).
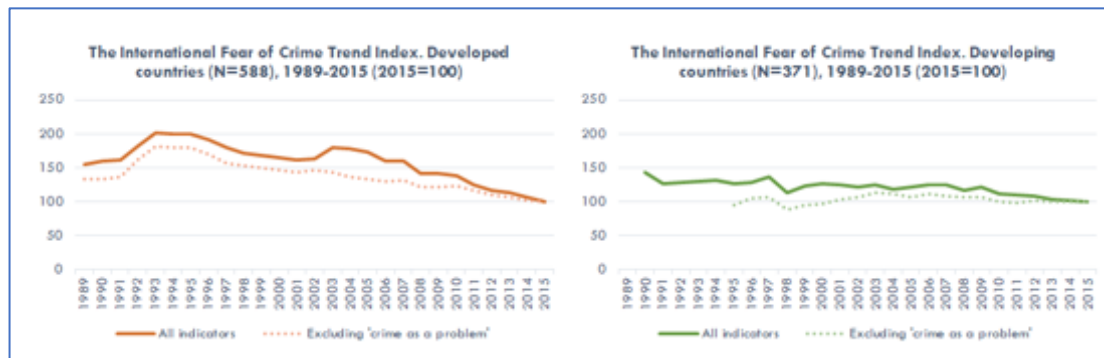
Figure 24 International Fear of Crime Trend Index for 'developed' and 'developing' countries, period 1989-2015, including and excluding indicator C ('crime as a problem')

The Fear of Crime Trend Index for the developing countries shows an almost stable pattern, resembling that of the South and Central Americas. Depending on the indicators included in the Index, it shows a slight decrease (index based on all available indicators) to a stable pattern (without indicator C). Just like in the case of the Americas though, the almost stable pattern 'hides' great variation.

The *fear drop thesis* described above must therefore be seen as a shared trend in fear of crime in the developed world but is less apparent in developing countries.

7.8 Prevalence and trends in 'newer' fears of crime

One central premise of this thesis is that in recent decades new forms of crime – or threats that the public associates with crime – have emerged that resulted in 'new fears' as well. In one of the sub studies I therefore proposed, that the western world was not only experiencing a *crime drop*, but a *crime change*[22] as well (Eysink Smeets, 2016a). A change, that the traditional ways of measurement and registration were not yet unable to show

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– maybe statistically speaking less correct, but also less normative – distinction between 'western' world and 'non-western world'.

[22] Strictly speaking, the use of the word 'crime' in this expression is too narrow a term, as I saw upcoming civil unrest as integral part of the new palet of security threats. The term is adopted by the Dutch police as well (Nationale Politie, 2020), even leading to the Corona Crime Change Monitor (Nationale Politie, 2021), but here it is mostly used without the important nuance of the previous sentence.

adequately (Lewis, 2013). Overseeing the available data, I suggested a similar 'shift' was taking place in public perceptions of security. So that we could not only speak of a *fear drop*, but of a *fear change* as well (Eysink Smeets, 2016a) and that, here again, traditional measurements have not been able to pick up these changes. But is that really the case?

Compared to the availability of surveys on fear of crime, surveys including items on newer fears are still rare. Exceptions can be found in some supranational surveys, such as the Eurobarometer, which from 2003 onwards includes items on fear of terrorism and since 2013 on perceptions of cybercrime. In recent years existing crime and victim surveys were expanded in some countries, such as in the case of the Crime Survey for England and Wales. This periodical survey now includes an item of worry about cybercrime (Brunton-Smith, 2018). In some other countries, dedicated surveys were initiated to cover a wider range of threats, such the *Crisis- en Risicobarometer*[23] ('Crisis and Riskbarometer', see Ipsos, 2014) in the Netherlands. This survey covers public perceptions of a range of threats to internal security: from natural disasters to terrorist attacks to cybercrime. Academic studies and/or surveys on the prevalence and trends of these newer fears are still rare as well. Overall, the available data on these new fears remain relatively scarce and fragmented.

7.8.1   Fear of terrorism

Perceptions of insecurity related to terrorism show that, especially in North-Western Europe and the Anglo-Saxon countries, these perceptions of insecurity are quite widespread among the population, fluctuating with the actual occurrence of terrorist attacks.

In the USA, a country that has experienced various terrorist attacks that received world-wide attention in the last 25 years, fear of terrorism fluctuates as well, with a relatively high prevalence shortly after an attack, then levelling off, before rising to a new high level after a new attack. Misis *et al.* (2017) found in 1995, just after the Oklahoma City bombings, that 42% of Americans reported to be 'very' or 'somewhat worried' about the possibility of a terrorist attack. By 2000, this number had reduced to 24%. After the 9-11 attacks, the number of Americans that stated to be very or somewhat worried about terrorism victimization of themselves or a family member rose again, now to 58%. In 2004, only 28% of Americans acknowledged being fearful of terrorist victimization. The year 2015 saw another spike in fear of terrorism, as in that year almost 50% of Americans indicate fear of terrorist victimization, (ISIL; Gallup, 2004, 2015). See for the trends over time figure 25.

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[23] Telling for the perceived relevance of these newer fears may be that the Netherlands started a Cybersecuritymonitor in 2017, in which no data on public perceptions of cybercrime were included (CBS, 2017). Similarly, an exploratory study on the possibilities to include cybercrime in Dutch national security indices addressed the issue of cybercrime itself, but not the 'fears' of cybercrime (De Cuyper and Weijters, 2016).

In European countries, especially those that experienced terrorist attacks in their own country or in neighbouring countries, a similar pattern is visible. Often with a clear distinction between the perceived risk of a terrorist attack in their country (seen as high), versus the perception of an individual's own risk of victimization (seen as relatively low). Bott & Koch-Arzberger (2012) found that in 2008/2009 almost half the inhabitants of the German town of Hesse were concerned about Islamic terrorism. Most of them did not expect to fall victim to such attacks though, and the impact on personal feelings of insecurity was relatively low.
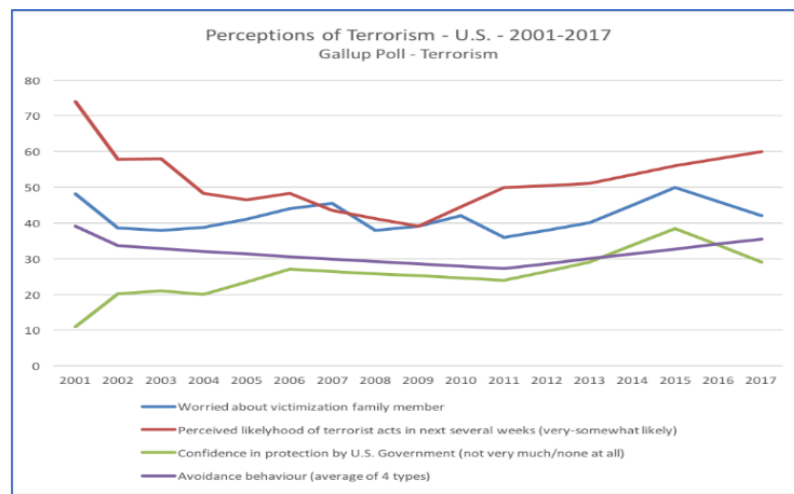
Figure 25 Cognitive, affective ad conative aspects of public fear of terrorism, 2001-2017, as measured by Gallup.

The Eurobarometer measures half-yearly what Europeans consider to be one of the two most important problems for their country or for themselves. Figure 26 (left) shows that from 2003 onwards only a small portion of the population considers terrorism as one of the most important problems for the country (under 5 percent), after 2014 that rises sharply to above 10%. In those last years the level of concern about terrorism equals or exceeds the level of concern about crime in the country. A similar pattern – at lower absolute percentages - can be observed in the right-hand graph, depicting the percentage of respondents reporting terrorism is one of the two most important problems for them personally. Note that the timescale here is different: the question on the personal relevance was added in 2008.
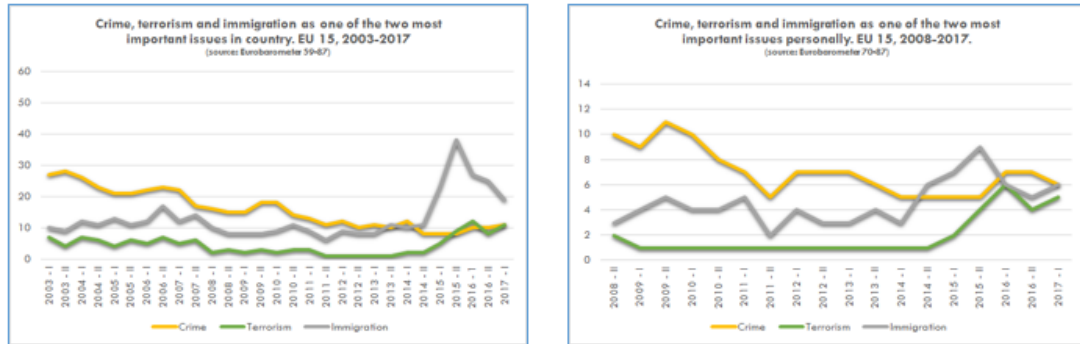
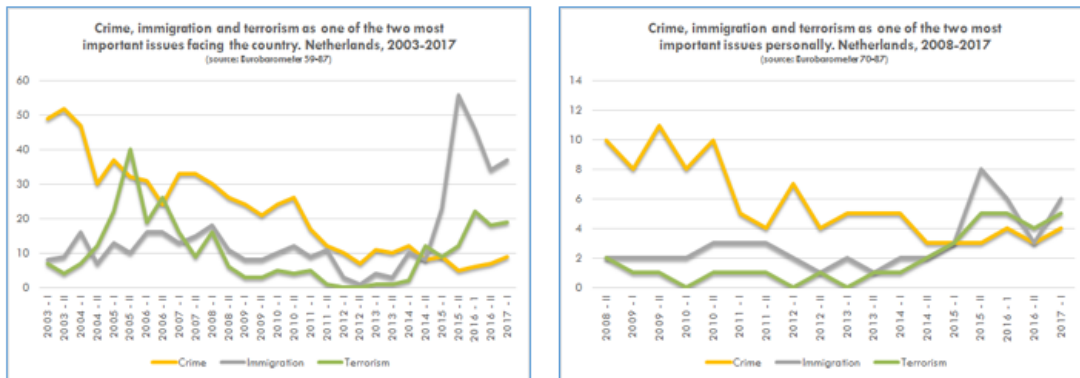*Figure 26. Crime, terrorism, and immigration as one of the two most important problems for the country (left) and personally (right), EU-15, 2003-2017 (left) and 2008-2017 (right). Note the different scales used for the y-axle in the two graphs.*

Respondents in The Netherlands expressed much higher levels of concern for the country than the EU-15-average, with a higher amount of volatility as well. The graph shows a first peak in the mid-2000s, that probably can be attributed to the terrorist murder of publicist and film director Van Gogh in Amsterdam, 2004, and to the terrorist bombings in Madrid and London of 2004 and 2005. A second peak can be observed from mid 2014 onwards, with rising unrest over Dutch jihadi's and ISIS-inspired terrorism as well as the downing of flight MH17 over the Ukraine. On the question of the two most important problems for respondents *personally:* the relevance of terrorism is again rising from 2014 onwards (see figure 27). In that period, concern about terrorism became a more important problem than concern about crime.

Figure 27 Crime, terrorism, and immigration as one of the two most important problems or the country (left) and personally (right) the Netherland. Note the differences in period: left graph 2003-2017, right 2008-2017

In the period 2007-2016 a large portion of the Dutch population 'is afraid' (expects) that a terrorist attack will happen in the Netherlands (see figure 28).

Percentage of Dutch population that are 'afraid' (expect) that …. may hit the Netherlands 2007-2016

(Source: SAMR 2007-2012/IPSOS 2013-2016)
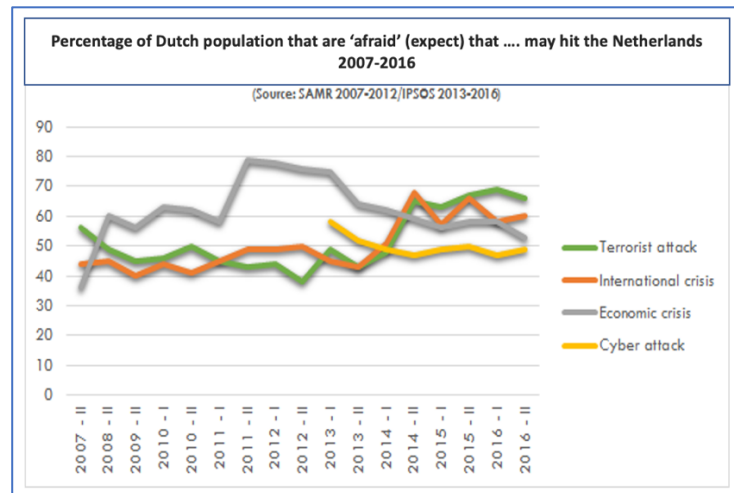
Figure 28 Percentage of Dutch respondents who are afraid (=expect) that the Netherlands will be hit by a terrorist attack, an international crisis, an economic crisis and or a cyber-attack. 2007-2016

The percentage of the population that expects such an attack shows a sharp increase again in the second half of 2014: rising from 40 - 50 percent between 2008 and the first half of 2014, to between 60 and 70 percent in the period thereafter. In a survey in 2017, Dutch inhabitants reported to be more alert, 40% of respondents stated they occasionally avoid events or places where many people are gathered (Liem, Kuipers and Sciarone, 2018)

Fear of terrorism overall

Fear of terrorism, as shown in the different timeseries, is characterised by volatility, especially prevalent in periods when actual terrorist attacks have taken place, but within a few years veering back to a much lower level. Various incidents in which a sudden sound (a cry, a loud bang), brought crowds to panic and 'stampede' make plausible that in the intermittent periods the fear is not completely gone, but is simmering in the background and can be easily called back.[24] In that way the fear of terrorism can be seen as a flashing fear with intermittent periods of simmering fear.

All data series described above show a relatively strong increase in recent years, especially as of 2014. The fear of terrorism manifests itself in the cognitive, affective and the conative dimensions, where it is especially strong in the perceptions of the collective, not the personal level.

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[24] See in the Netherlands for instance the notorious incident with the *Dam-screamer*, on May 4th, 2010, a man let out an enormous scream at Amsterdam's Dam-square, that at that moment was fully packed with people for the yearly remembrance of the deceased of the Second World War. The scream caused a great and sudden panic. It is plausible that the public (among others) made a subconscious connection to the terrorist-like attack on the Royal family, that took place the previous year, killing 8 members of the public and shocking the nation.

7.8.2   Fear of cybercrime

Around the turn of the century, a study by the Pew Internet and American Life Project found "the majority of Americans surveyed (87%) were concerned about credit card theft online, with 69% ''very concerned'' (Fox, 2001, cit in Roberts, Indermaur, & Spiranovic, 2012, p. 320).

Some years later, Roberts et al (2012) conclude from an analysis of the 2007 sweep of the Australian Survey of Social Attitudes that at that time the illegal use of credit cards over the Internet was one of the crimes that generated the highest levels of worry among Australians (23% ''very worried'', 27.9% ''fairly worried''). Fear of having identity stolen via the Internet was also a source of worry (15.9% ''very worried'', 24.4% ''worried'') (Roberts, Indermaur and Spiranovic, 2012).

Over the next decade data from the Gallup Poll Social Series (Crime) show that between 2010 and 2017 in the U.S. worry about being victim of identity theft was widespread but stable, mostly measuring around 70%. In a study that did not focus on the general population, but on U.S. property–casualty (P&C) insurers, Pooser, Browne, & Arkhangelska (2018) found that the portion of those insurers that identified cyber risk as a material risk factor rose from roughly one-quarter in 2006 to 'almost all' insurers by 2013.

The Eurobarometer measures from 2013 onwards the level of public concern on various forms of cybercrime in 24 European countries. The results show that these concerns increased steadily between 2013-2017, as shown in table 4 (Special Eurobarometer 2013-2017). A large majority of respondents believe that the risk of becoming a victim of cybercrime increased in the past year (83.3 percent in 2017).

Table 4 Concern about six forms of cybercrime, percentage of population that reports to be very or fairly concerned. EU-24, Average percentage of the national averages of the 24 countries period 2013-2014. Source: European Commission, Special Eurobarometer 2013-2017.

Percentage of respondents fairly of very concerned…	2013	2014	2015	2016	2017
…to become victim of bank card or online banking fraud	48,3	62,0	-		64,4
…of being asked for a payment in return for getting back control of their device	-	46,8	-		53,5
…not being able to access online services because of cyber-attack)	38,5	50,8	52,3	53,9	55,5
…of online fraud where goods purchased were not delivered, counterfeit or not as advertised)	42,8	54,4	55,3	56,3	57,3
…to receive emails fraudulently asking for money or personal details	43,9	54,7	55,8	56,9	58,0
…of your social media of email account being hacked	45,6	59,3	60,0	60,8	61,5

Livingstone *et al.* (2011) found in their study on cyber related risks for European youth that 6% of 9-16 year olds had been sent nasty or hurtful messages online, which had made half of those fairly or very upset. Henson et al. (2013) studied perceptions of Online Interpersonal Victimization and found that that generated a low mean level of fear reported by respondents, ranging from 0.57 to 1.17 on a scale from 0 to 9. This led the researchers to suggest "that cyberspace environments—and a corresponding lack of physical proximity to potential offenders—may have a very different impact on an individual's level of fear of crime than the physical environment" (Henson, Reyns and Fisher, 2013, p. 489).

7.9 Comparing 'old' and 'new' fears

The Eurobarometer data presented in figure 26 showed that in the new millennium challenges such as terrorism and immigration in the perception of Europeans gradually increased in importance. In the Netherlands – and as shown in figure 27 - that trend is not only visible at the level of perceived problems for the country: a same pattern is visible when asked for the importance of these topics for respondents personally.
Based on similar observations, various authors indicate that in the new millennium 'new' fears of crime and other threats gradually superseded the traditional fear of crime. Boers et al., (2017) indicate that increasing fear of terrorism (and of other social problems such as refugee movements, financial crises or a break-down in the retirement insurance system) have become much larger than the fear of crime. Roberts et al. (2012, p. 324) make a similar observation on cybercrime: "Worry about cyber-identity theft and related fraudulent activity is now greater than worry about many traditional place-based crime". Brunton-Smith (2018) comes to a similar conclusion: people now tend to worry more about cybercrime than about traditional crime. In the beginning of the same decade, Lewis, (2013) described how we failed to see changes in crime that accompanied the crime drop however, as the:

> "published falls in crime statistics are real but [...] the current measures are inadequate to cope with a changing trend in criminal activity, away from 'conventional' crimes such as robbery, theft and burglary, towards a greater concentration on Internet crime, frauds of all kinds and the various kinds of corruption associated with the global economy and the growth in electronic commerce" (Lewis, 2013, p. 220)

Overseeing the material presented in this chapter, I have to conclude that this not only applies to *crime,* but just a much – and due to the same reasons – to the *fears of crime* and related perceptions of security.

7.10 Conclusions

The body of knowledge on fear of crime and related perceptions of security is thin where it concerns the longitudinal trends in prevalence. Where it concerns fear of crime, there are longitudinal data in abundance that may be used to come to a better estimation of those trends. These data stem from different surveys from which the findings in themselves may be hazardous to compare. These comparability-problems may be circumvented using an index in which only the direction of the trends found in the different surveys is combined. The explorative attempt to construct such an index as described in this chapter shows that such an exercise is feasible. Certainly, this first attempt needs further improvement, with for instance the inclusion of more data from more countries or by more sophisticated forms of weighing of data. The index cannot overcome the problem of temporal measurement invariance as well, an issue that seems to be systematically neglected and under-researched in longitudinal surveys on fear of crime.

Bearing these limitations in mind, an International Fear of Crime Trend Index as constructed in this thesis yields results that questions many assumptions on the longitudinal trends in fear of crime that have been put forward over the last decades. This question has often been why fear of crime did not appear to go down when and where crime was going down. The Index shows however that in many countries in the western world fear of crime *is* going down, in a similar structural and substantial way as the much-described decline of crime. The results of this exploratory exercise suggest that in the western world we can not only speak of a *crime drop*, but of a *fear drop* just as well. The time that the decrease in fear of crime sets in differs somewhat between regions – for instance a few years before the millennium-change in North America, a few years after that change in West and Northern Europe – but the direction is consistent. The Index shows as well that crime *concern* in these regions is especially strong around the time the decrease sets in. In non-western countries the trend is more varied, while the determination of a Fear of Crime Trend Index is hindered here by the limited available data. Overall, the Index for non-western countries shows a gen stable trend, which due to the great variety in indexes for the constituting regions and countries could probably best be explained by a regression to the mean- effect.

Studies into (or data on) longitudinal trends in new fears of crime are even rarer than on traditional fear. Available studies on the prevalence and trends on two important 'new fears' - perceptions of terrorism and perceptions of cybercrime - give rise to the thought that these fears have become widespread in (western) societies in the second decade of the new century. Their prevalence is increasing as well, even to the extent that these new fears can now be considered to exceed the traditional fear of crime. This supports the hypothesis of a *fear change.* The patterns in the observed trends reflect some of the different types described in chapter 4, with especially fear of terrorism showing relative volatility, sometimes showing the characteristics of a 'simmering fear', sometimes that of a 'flashing fear'.

8 Fear drop and fear change in The Netherlands (1985-2021)

8.1 Introduction

Up to now I described in this thesis the variety of perceptions of security, the way they form and the effects they can have in society. I also showed how, in the last decades, the western world experienced a fear drop and a fear change. The way I described these topics was mostly abstract and theoretical, and in the last chapter mostly quantitative. This chapter will try to give the core of the findings some more 'real life taste', in the form of a narrative case study of security, security perceptions and security policy in the Netherlands in (almost) the last four decades. Which fear(s) of crime and related perceptions of security could be observed? How did they develop over time? What were important effects in society? How did security policy respond to those developments? I will start in the mid-1980s, when a ground-breaking report laid the foundations for our contemporary security policy (Commissie Kleine Criminaliteit, 1984, 1986). I will end in the period where I wrote the final words of this thesis - the beginning of 2021.

8.2 Six periods

In the period that this case study covers, I distinguish six distinct time periods. I will briefly elaborate on each of the periods in succession.

8.2.1 1985-1992 Criminal policy reinvented

In the 1980s, public discontent grew about the (perceived and factual) rise of petty crime in the Netherlands. Pioneers in policy and research started to seek new ways to reduce the prevalence of these crimes, such as vandalism, shoplifting and residential burglary. They found inspiration in *situational crime prevention* that was developing in the U.K. and U.S. (Clarke & Mayhew, 1980; Clarke, 1980)*.* In a reaction to the rising public discontent, a commission was installed at the national level to come up with suggestions for the innovation of criminal policy. Based on a thorough scientific analysis, the commission proposed to improve the effectiveness of criminal policy by increasing preventive efforts, not only by (technical) opportunity reduction, but even more so by socio-prevention. The latter by strengthening 'the ties between youth and society' and by increasing semi-formal control. For young first-time offenders, the recently developed HALT-sanction (providing a

quick and pedagogical answer to small offences) should become the norm (Commissie Kleine Criminaliteit, 1984, 1986). The proposals also meant that from then on effective crime reduction was not the sole responsibility of the police, but had to be the fruit of a multi-agency approach, in which local government would be a central actor. For this new role of local government, the term *bestuurlijke preventie (*administrative prevention) was coined (Etman *et al.*, 1992).

The proposals of the commission received broad support. Their ideas were translated in the policy plan *Society and Crime* (Ministerie van Justitie, 1985), that underlined the necessity as well for 'learning by doing', supported by science. It formed the start of a second period of innovation, in which various strategies and interventions were tried out and systematically evaluated, many of which turned out to be effective (Van Stokkom *et al.*, 1995).

Although the focus of the commission reports and policy plan were on crime and not on fear of crime, they were in themselves a direct reaction to the concern and discontent among the Dutch population. In this period, the rise of recorded crime came to a halt and changed to a stabilization (see figure 29). Data on fear of crime in this period are scarce, especially when compared to the amount of data in the later periods, but the data that *are* available show an increase (Eysink Smeets *et al.*, 2018a).
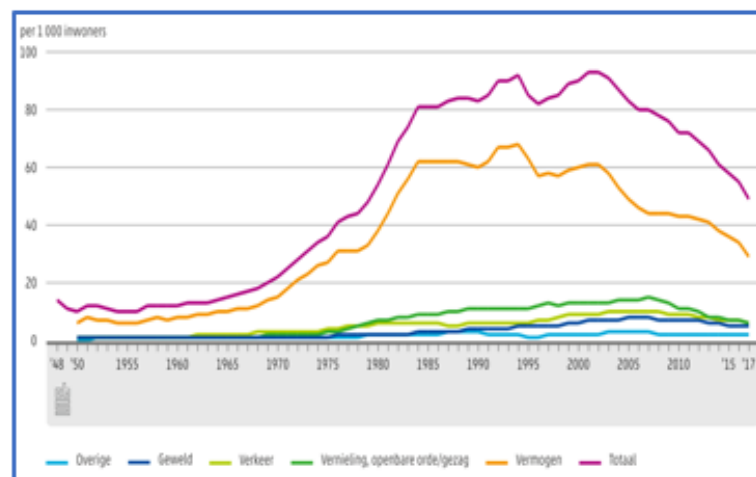
Figure 29 Recorded crime in the Netherlands, 1950-2017 (from: De Jong, 2018, p. 3)

8.2.2   1993-2001 The becoming of Integrated Security Policy (ISP)

Based on the experience of the previous period, the involvement of local government in security policy was further expanded, culminating in *Integrated Security Policy* (Eysink Smeets and Van den Broek, 1998). With this policy a growing number of organizations and institutions, under the lead of local government, became active in crime prevention and

crime reduction. At the same time, the Dutch government launched a *Grote Stedenbeleid* ('Big Cities Policy'), a well-funded initiative to support the 44 biggest cities in The Netherlands in improving the physical and social environmental conditions in these cities. In 1993 Dutch police was restructured as well: the 146 Dutch municipal police forces and the National Police[1] were reorganized into 25 regional police forces and one police force for specialized police-services.

In this period, burglary, one of the crimes that formed the focal point of security policy in many cities, started to decline. Fear of crime started to decline as well. Total registered crime resumed its increase however (see figure 32), in which heroine-addicts and other *turnstile criminals*[2] played a major role. Although fear of crime decreased (see figure 33), public discontent started to grow again, focused on the 'turnstile criminality' and incivilities in the streets, the perceived overrepresentation of youth of foreign descent in these crimes and incivilities and on the perceived state of neglect of public spaces. An extra dimension to the public discontent was the perception among (parts) of the public that the authorities were unwilling or reluctant to address the perceived criminality of heroin-addicts and second-generation immigrants. On the - at that time - very 'sensitive' subject of integration of immigrants, (Scheffer, 2000) published his – in The Netherlands famous - essay *Het Multiculturele Drama* (the Multicultural Drama), which 'broke' the Spiral of Silence (Noelle-Neumann, 1974) on this issue. In the summer of 2001, populist politician Fortuyn took the central stage in politics, voicing the discontent among parts of the population on these issues.

Measured fear of crime, that had kept declining over most of this period, showed a peak in 2001/2002 (see figure 30). Around that same time, a majority of the Dutch population saw crime as the most important issue our country faced.

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[1] Providing the police service in rural area's.

[2] Named this way in popular debate as they, when arrested, were set free after a short time, after which they immediately resumed their criminal activity, for which they again were arrested, after which….
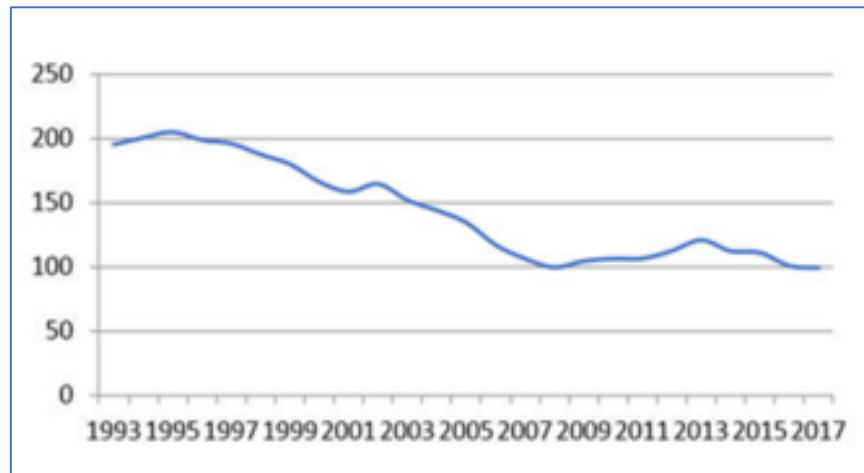
Figure 30 Fear of Crime Trend Index for The Netherlands, 1993-2017, index 2009=100

8.2.3   2002-2008 ISP intensified

At the end of the last period, the terrorist attacks of 9-11 in the U.S. suddenly shook the
world. The Dutch population was just as shocked. Only a couple of months later, the
Netherlands were confronted with another event that shook the nation: the murder of
populist politician Pim Fortuyn. The assassination brought the country to turmoil. It also
brought difficulties for the cabinet (and for politicians in general). Fortuyn-followers
suggested that the government had not done enough to protect Fortuyn; politicians were
criticized, as it was suggested that the murder could be attributed to a perceived
'demonization' of Fortuyn by parties on the left of the political spectrum ('the bullet came
from the left', see cf. Parool, 2002) .

Fortuyn, who had lived in Rotterdam, had just gained his first political success there, by a
landslide victory in the local elections. The mayor of Rotterdam, feeling that his city was on
edge due to the murder, decided to head the silent march that many Rotterdammers held
immediately after Fortuyn's death, earning him great credibility. He saw as well however,
that he had to do something with the public discontent that Fortuyn had tapped into. This
led[3] to the launch of a new city-wide public security policy, under the heading *Clean, Well-
Maintained and Safe* (Tops, 2007)*.* It contained the same principles as the Integrated
Security Policy from the previous period, but with one major difference. The emphasis was
now laid at getting things really done in the city, focused on the problems that many
inhabitants saw as worrisome, executed in a resolute style and with increased intensity to
give visible change. With the wisdom of hindsight, it can be noted that the policy was based
on many the same notions that – at the same moment in the U.K. - brought Innes to his

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[3] The foundations of which had been laid a year before, as the local administration already saw discontent rise
on crime and nuisance in the streets and on the crime and nuisance around important locations in the city, such
as Rotterdam Central station, where the notorious Platform 0 – with its gathering of addicts, drugs dealers, and
prostitutes had become the nationwide symbol of what was wrong in Dutch security policy.

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signal crime perspective and the strategy of *reassurance policing* (Innes and Fielding, 2002b; Innes, 2014)*.* The strategy covered all the situational domains that affect perceptions of security (social, criminal, physical, institutional, see figure 9), while the mood in the city slowly started to change as well*.* From that moment on, crime and fear of crime in the city of Rotterdam started to decrease, a trend that almost continued until the time of writing of this thesis (Eysink Smeets, 2016e).

The promise that the Rotterdam policy held was quickly recognized in other places in the Netherland. It inspired national government to come with a reinvigorated security policy plan as well, based on the same leading principles (Ministers van Binnenlandse Zaken en Koninkrijksrelaties en Justitie, 2002). Part of this 'new wave' of national security policy were as well performance contracts with the 26 police forces on their output (Groenewegen, 2010). The intensification of security policy was supported by an enlarged budget, expenditures on security policy in this period showed a year-on-year increase (Moolenaar et al, , 2015). The Big Cities Policy that had started in the previous period provided the means to step up interventions in the social and physical environment as well. In this way, *Clean, Well-maintained and Safe* became the motto for security policy in many cities in the Netherlands.
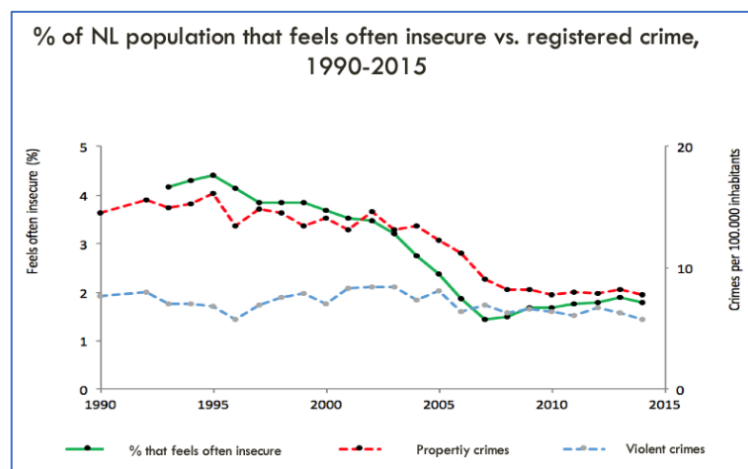
Figure 31 Percentage of Dutch population that feels insecure 'often' versus recorded property and violent crime, 1990-2015. From: Eysink Smeets & Vollaard (2015)

It is in this period, that in the Netherlands the crime drop became clearly visible, with a marked decrease of registered crime over the whole period (see fig. 29 and 31). That drop is accompanied by a (further) *fear drop* that is even more distinct, surpassing the crime drop in speed and extent (see fig. 30 and 31). The findings strongly suggest, that the decrease in fear of crime can not only be attributed to the decrease of crime. In line with the *signal crime* and *reassurance* hypotheses, it seems plausible that the fact that the Dutch public noticed that their worries were seen, shared, and credibly acted formed an important additional factor (see (Eysink Smeets, 2016e). Not by coincidence, the satisfaction of the Dutch public in public enforcement rose in that same period in a record time from a score of 'unsatisfactory' to 'almost excellent' (see fig. 32).
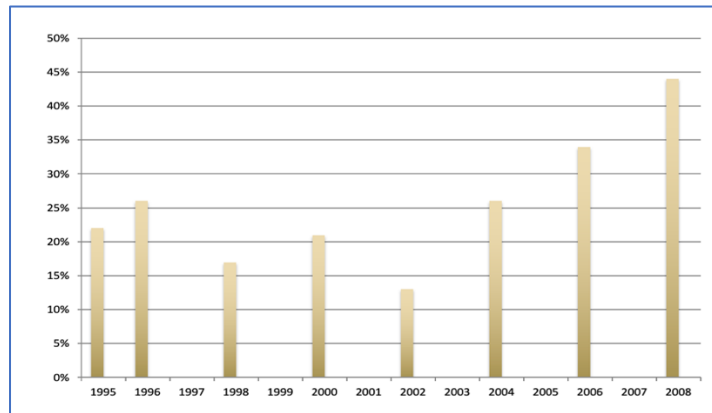
Figure 32 Percentage of Dutch population that judges policy on public order a 7 or higher
(on a scale of 1 to 10), 1995-2008. Source: SCP, Culturele Verkenningen 1995-2008

Concern about crime started to fall, a downfall that continued to the mid-10's of this century. Of course, at some moments of time, perceptions of security came under duress again in this period. Some two years after the murder of Fortuyn, the Islamist killing of publicist and filmmaker Theo van Gogh shook the nation again, while the grand scale terrorist attacks in London and Madrid of 2004 and 2005 were felt in the Netherlands as well. It led to 'flashing fears of terrorism', veering back to much lower levels after some time (see figure 33).
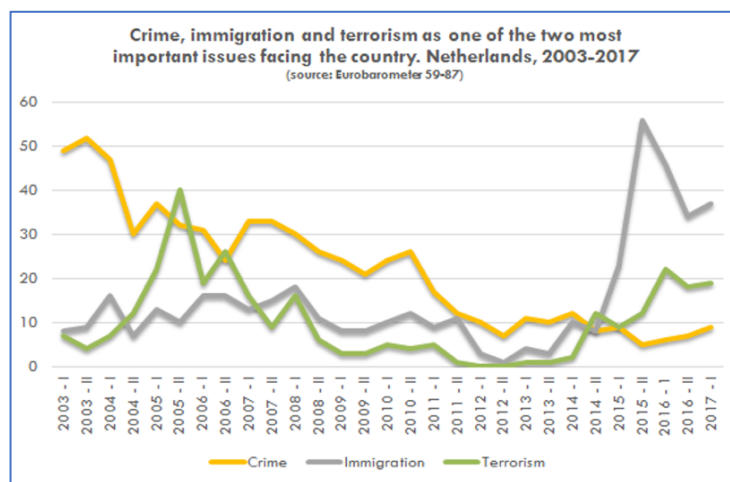
Figure 33 Percentage of the population that sees crime and/or terrorism as one of the two
most important problems facing the country at that moment, NL, 2003-2017 (source:
Standard Eurobarometer 59-87)

8.2.4   2008-2014 The transitional period of the financial crisis

The collapse of the financial system in the fall of 2008 brought the start of a new period. The 'concerns, worries, and fears' of the public were suddenly aimed at a completely

different, far more ontological threat. The stock market crashed and banks such as Icesave, a bank that had just entered the Dutch market, collapsed, leaving many Dutch in doubt whether they would ever see their savings again. Dutch banks were in danger as well and had to be supported by large sums of taxpayers' money. The financial crisis brought an economic crisis in its wake, as a major recession set in. Employment, especially for those with lower education, came under threat. Dutch government chose to react to the crisis by means of austerity policy. It meant a revision of the welfare state, a pride of the Dutch that was built up over many years. Dutch government practiced a strategy of 'withdrawal of government', preaching 'self-reliance' as the new concept (Van Ostaijen, Voorberg and Putters, 2012). Social policies were cut. This affected the less advantaged in Dutch society disproportionately, so it was no surprise that discontent especially grew in these groups (Steur and Doorne, 2017).

Recorded crime continued its decline (see fig. 32), with some differences by crime type. The decrease of property crimes temporarily slowed and residential burglaries even started to increase. In all, the crime drop continued though, but the fear drop did not. The downfall of measured fear of crime – as operationalized in the Fear of Crime Trend Index - came to a halt in 2008, after which it stabilized, even showing a small peak in 2013.[4]

The main concerns for the public in this period were the financial and economic crises. In security policy and the security complex, these crises were felt too. The year-on-year growth of the expenditure on security policy came to a standstill and changed in budget cuts. In the security complex a far more fundamental change took place too, however. In 2010, the major of Rotterdam who performed such an iconic role in Rotterdam's security policy in the previous period, was appointed as the first minister of Security and Justice. Up to then, the responsibility for the CJS and the security complex was divided between two departments: the department of Internal Affairs[5] and the department of Justice[6]. After the 2010 elections, one *superdepartment* of Security and Justice was created, responsible for all organizations of the CJS and the security complex. As a next step, the judicial services were restructured, in which both prosecutors' office and courts were concentrated in far fewer locations. The 'crisis and calamities'-organization was restructured as well. As the last step the 26 independent regional police forces were reorganized into one national police force. In this way, in just a few years' time (2010-2014), the security complex was completely restructured, concentrating the most important organizations in larger entities, at a greater distance of local communities and government and local communities and erasing checks and balances present before.

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[4] As mentioned before, in one of the sub studies within the framework of this thesis this peak was explained by a multi-agency communication campaign, headed by the newly formed ministry of Security and Justice, aimed at (but hardly succeeding in) stimulating crime prevention. (Eysink Smeets, Jacobs, *et al.*, 2017)

[5] Under which organizations such as police and fire brigades resorted

[6] Among others responsible for public prosecution, courts, and prison service

Taking a general view, in this period 'public, press and parliament' were focused on the *financial crisis*, while the minister of Security and Justice, CJS and security complex were focused on the *great restructuring*. For those who watched carefully however, the first signs of a *fundamental change of the security landscape* were visible as well. In 2010, the Dutch saw - live on television - a man slam his car into a crowd of spectators during a visit of the Royal Family at *Queens Day*, killing 8 people, wounding many others, and only just missing the royal family. The terrorist-like attack once again left the country in shock. While traditional crime was on the decline, in several neighbourhoods in the country intimidating behaviour of *untouchables* turned out to have a devastating effect on the perceptions of security of inhabitants. In three studies I undertook at that time, I found that information on this issue was often treated as *uncomfortable knowledge* at strategic level, so adequate action remained scarce (Eysink Smeets and Bervoets, 2011; Eysink Smeets and Zandbergen, 2011; Eysink Smeets, Bervoets, *et al.*, 2013). In 2012 an unprecedented shooting spree in a residential area of Amsterdam - in broad daylight between members of what would later become known as *mocro mafia* (Laumans and Schrijver, 2014) - gave a glimpse of what could be expected later. That same year brought a society-wide moral panic on massive disorders in the small town of Haren, where thousands of youths from all over the Netherlands gathered in acceptance of the Facebook-invitation of a young girl to come and celebrate her birthday (Commissie 'Project X' Haren, 2013). For many adults, it was the first acquaintance with the world of social media. Not much later, the NSA-affaire brought a new perspective on governmental surveillance, that turned out to go much further than many could have dreamed of (cf. Landau, 2013). In the meantime, the financial and economic crisis, and the reaction to those crises in politics and policy yielded anger, societal pessimism, and discontent (Magni, 2015; Steenvoorden, 2016; Steur and Doorne, 2017). Perceived inequality grew; cues of *threat* increased; cues of *control* diminished. Confidence in banks (Edelman, 2014) and in government and parliament decreased (see fig. 39). These formed the undercurrents with which we entered the next period.

8.2.5   Intermezzo: on the emergence of smartphones, social media, and smart influencing

The year 2008 is not only the year the financial and economic crises set in, it forms a watershed as well where it concerns our ways of communicating. It is the year that the first iPhone was (officially) introduced in the Netherlands, marking the start of the *social media revolution.* From 2008 on, smartphones quickly became the most used device for personal communication. Smartphone ownership rose to 76% of the Dutch population by the end of 2014 (Searchtrends, 2015). The introduction of 4G in that year provided smartphone ownership a further boost, rising to 95% in 2021 (Consultancy.nl, 2021).

Immediately after the introduction of the iPhone, the use of social media such as Facebook, YouTube, Twitter, and LinkedIn rapidly increased, an increase that was already levelling off when 2014 marked the start of the next period (Lamers, 2017). At that moment, 74% of

Dutch above the age of 12 used social media (CBS, 2020), further increasing to above 90% in 2020 (Van der Veer, Boekee and Hoekstra, 2021).[7]

I mark the year 2008 as the start of another important trend as well. It is the year that Thaler & Sunstein's (2008) seminal publication on influencing human decision was published, after which *nudging*[8] rapidly became the popular word for such influencing based on insights from behavioural studies. In the years after, the combination of social media and 'nudging' would prove to be a powerful tool for those who aim to influence human behaviour and attitudes, for whatever aim (see cf. Puaschunder (2017)). It would soon become clear that social media provided completely new means for surveillance, manipulation and exploitation of the public on one hand (Zuboff, 2019), and the voicing of protests and for social movement on the other (Gerbaudo, 2012).

8.2.6   2014-2020 Waking up in a strange new world?

At the end of 2013, the economic confidence in the Netherlands became positive again, marking the end of the 'double dip' recession of the previous period. With a feeling of relief, the Dutch entered the year 2014, which would undoubtedly bring back the life we were used to before the financial crisis. That relief was short lived however, as from the spring of 2014 onwards our country was confronted with a rapid and frightening succession of Black Swans (Taleb, 2008). Russia annexed the Crimea. ISIS murdered U.S. journalist James Foley in front of the (social media) cameras. Flight MH-17 was shot out of the Ukrainian skies, killing 298 passengers of whom 193 were Dutch. Young Dutch jihadis set out to Syria, joining ISIS. That was just the start, as the next year brought the Charlie Hebdo-attack in Paris, soon followed by a series of ISIS(-inspired) attacks in our neighbouring countries, such as in France, Belgium, England, Germany. The same year, a massive stream of refugees got into gear from Syria and other countries, leading to the international refugee crisis.

Social media changed the way how (and what) information on these events reached us and how we coped with these, for instance by expressing our opinions and emotions or by undertaking counteraction. Public concern on terrorism and immigration soon surpassed that on crime (see fig. 36), while in society phenomena could be observed that show great similarity to effects as described in the previous chapters, including polarization, forms of civic unrest and rising aggression to for instance *muslims* as well as *mayors* (Eysink Smeets and Flight, 2020).

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[7] Van der Veer et al (2021): 93% of the population above the age of 14 in 2020.

[8] Derived from the title of their book: *Nudge. Improving decisions about health, wealth and happiness.* That is why I took this publication as the symbolic start of the trend described above. Of course, in the same period – and even same year – comparable publications came out, such as Ariely (2008) *Predictably Irrational.*

The new developments also posed a major challenge for the recently restructured organizations of the security complex, a restructuring that had been done from the perspective of the completely different security challenges of the former periods. Not before long, the security complex started to creak and squeak. Coincidence or not, an unprecedented series of - partly unrelated - scandals and affairs started to swell, costing the head of two ministers of Security and Justice, two deputy-ministers, the first Chief of the national police, several high-ranking civil servants of the department of Security and Justice and two leading public prosecutors (Eysink Smeets, 2019a). Morale within the newly formed national police sank (Reputation Institute, 2018), and police unions started to complain about police shortage and lack of leadership (Van Dam, Struijs, & Van de Kamp, 2021). A group of Dutch judges start an – again unprecedented – petition against the (risen) workload versus the (lowered) organizational capacity to take care of that work in a responsible way (Tegenlicht, 2016). A mismatch appeared to emerge between the (restructured) security complex and CJS on the one hand, and the (changed) security landscape on the other hand (Eysink Smeets, 2017b).

Just after the restructuring of the security complex, in 2015 a restructuring of the organization of the social domain was executed as well. The care for several vulnerable groups in society (such as youth, unemployed and elderly) was decentralized, making local governments responsible for the organization of such care, as they were considered to be in a better position to deliver this care in an effective and efficient way, and increase the 'participation of these groups in society'. In anticipation of the savings this operation would yield, budgets were substantially cut. Five years later, an evaluation showed that the expectations of the restructuring had been too optimistic, the care for the vulnerable groups had not been improved (and in some cases deteriorated) and the expected savings had not been met (Kromhout, Van Echelt and Feijten, 2020). To increase participation in society of patients of mental health care, some years earlier a strategy was deployed to diminish the number of inpatients in mental health care, treating more people as outpatients instead. These patients disproportionately found residence in more vulnerable neighbourhoods. Over the years, the police noted a marked rise in calls for assistance due to 'persons with confused behaviour', demanding too much of their capacity and competences (Abraham and Nauta, 2014). In several of the sub studies I conducted within the timeframe of this thesis, I observed that 'persons with confused behaviour' indeed had a substantial impact on perceptions of security in vulnerable neighbourhoods (Eysink Smeets and Schram, 2015b, 2015a; Schram, Eysink Smeets and Hendriks, 2021).

Signs of trouble ahead?

The frightening series of black swans, brought to the public by the new channels of social media (too), while the protection of the welfare state took on new, and slimmed down forms, did not go by unnoticed by the public at that time. And in society something seemed to be cooking. Not only in the Netherlands, as for instance in Britain the discussion on

Brexit started to come to heights. That these developments might hold signs of further challenges ahead was not widely accepted. In the summer of 2016 for instance, I attended an invitational conference of high-ranking officials within the security complex. A director of the ministry of Security and Justice posed the question what the challenges of the department would be in the next few years, now the crime drop had decimated recorded crime. I had just finished one of the sub studies for this thesis, on public reactions to the influx of refugees in the Netherlands. In this study (and other studies I undertook at that time), I had noticed substantial signs of public unrest that I could only be explain by the combination of Black Swans described above, combined with the 'undercurrents' of public anxieties, discontent and polarization that had formed in the previous period. I saw substantial risks for larger scale public unrest (Eysink Smeets and Anoek Boot, 2016c; Eysink Smeets and Boot, 2017b).

When I shared these observations, describing that we were not only witnessing a *crime drop,* but a *crime change* as well, with a *fear drop* and *fear change* in their wake – and the possible effects thereof in society - the incredulous answer of the director was short. "*You are preaching Armageddon!".* I left the meeting to fly to Stockholm to present my study at the annual criminology conference there, where many fellow researchers on this issue recognized my observations. Immediately after the session, the news broke that politician Jo Cox had been stabbed to death in the U.K. Not before long, the UK. voted for Brexit, the U.S for Trump, France got their *gilets jaunes* and Catalunya rose against Spain's central administration. Movements such as Black Lives Matter, #Metoo and Extinction Rebellion took centre stage. In the Netherlands, public protests on several specific Dutch issues rose as well, such as on *Black Pete,* leading to emotional and sometimes violent confrontations between opponents and proponents. Dutch farmers rose to protest against policies they perceived as unreasonably restrictive, leading to fierce demonstrations of the *Farmer Defence Force*. It seemed that there was not only something cooking but that in various places it was 'boiling over' as well.

In the same period, new forms of crime grabbed the public attention. Cyber-crime for instance, with increasing manifestations of identity-theft, phishing and ransomware. In 2017, a Dutch scholar and a journalist published a book on 'undermining' of the rule of law by organized (drugs)crime, after which an *elite-engineered moral panic* (Goode, Ben-Yehuda, 1994) unrolled on this perceived new threat to society (Tops and Tromp, 2017). Soon, Dutch government set aside an *Underminingsfund* of 100 million euro to combat this new threat. It did not come in time. Criminal networks*,* partly grown from the 'untouchables' mentioned in the previous period, became ever more drastic in their drugs trade and drugs wars, with assassinations back and forth.[9] Public and political unrest came to a peak in 2019, when the lawyer of a crown witness was killed as means of intimidation of the witness. It was broadly seen as an attack on the rule of law. The event led to a rapid

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[9] in which sometimes the wrong person was killed, leading to the Dutch word *vergismoord* ('mistake murder').

shift (once again) of the priorities of police and the criminal justice system, drawing capacity away from tasks that previously were seen as crucial, and where staff was already experienced as short. Not before long, the first reports appeared that the police were disappearing from the neighbourhoods (cf. Inspectie Justititie en Veiligheid, 2020).

Lastly, in this period more and more doubts grew - and were actively sown - about the credibility of (information of) various institutions in society. In 2015, the Dieselgate-scandal showed that a major European car-manufacturer systematically cheated the public with fraudulent software installed in their cars (Houtekamer, 2019). From the 2016 U.S. presidential elections onwards, *fake news* and *fake media* became mainstream words, stimulating doubts about the credibility of *mainstream media.* Russia tried to interfere in the U.S. elections, amongst others by *trolling strategies* on social media (United States Senate Committee on Intelligence, 2019). One of the candidates in those elections made use of debatable social media tactics as well, assisted by the U.K. firm Cambridge Analytica. Key to their strategy was getting to know the fears of the public, so the messages of the candidate could appeal to those fears (Channel 4, 2018).

Crime, fear, and discontent

Overall, in this period various kinds of new crimes and threats, and new forms of civil unrest emerged that, in the same way as Lewis (2013) warned about, hardly became visible in the traditional way of measuring security. The Dutch crime statistics over this period therefore continued to show a *crime drop*, while in fact a *crime change* manifested itself. Something similar is visible in perceptions of security. The Fear of Crime Trend Index showed a stabilization in traditional fear of crime, the sub construct of concern about (traditional) crime even reached its lowest point since the start of the measurement. But, as described in chapter 7 as well, concerns, worries and fears on the newer threats rose, thus constituting a *fear change* (Roberts, Indermaur and Spiranovic, 2012; Eysink Smeets, 2016b; Boers, Walburg and Kanz, 2017; Brunton-Smith, 2018; Eysink Smeets and Foekens, 2018a). Public discontent on the state of society increased (further), just as public pessimism on the future. This was especially the case in the less educated population, increasing the gap between well-educated and less educated Dutch (Dekker, Den Ridder and Van Houwelingen, 2017). The (experimental) *social tensions indicato*r showed a marked rise in social tensions from 2017 onwards (CBS, 2021b), while around the same time, public confidence in the economy started a downward trend again (CBS, 2021a). Finally, Dekker et al (2017) observe that from 2014 onwards Dutch papers and magazines show a marked increase in the use of the term *boze burger (*'angry citizen')[10].

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[10] A proxy-indicator that should be treated with greatest care of course, as it may reflect a trend in society, but could also reflect an urge to copy a well-sounding term.

8.2.7   2020-….. Enter corona

The outbreak of the corona-pandemic, reaching The Netherlands in February 2020, marks the start of a new period. After the 'black swans' of the previous period, for most people in the Netherlands the pandemic formed a black swan *in extremis,* although experts had warned for the risk of such a pandemic for years (Sridhar, 2020).

At the onset of the pandemic, I had just retreated myself to finish this thesis. Observing the reactions to the pandemic in society, it did not take long me to realise that the pandemic of COVID-19 carried a second pandemic in its wake: a pandemic of fears, anxieties, and stress. In this second pandemic I recognized many of the patterns and mechanisms that had kept me occupied during the years I spent on this thesis. The worries, anxieties, and fears on the new and abstract threat of the virus that were perceived to threaten the health of huge numbers of people - while we had no idea at first on how and to what extent we could defend to ourselves to this threat - were completely consistent with the psychometric paradigm on risk. Primed by the graphic images of *men in white suits* in Wuhan and of overflooding ICU's in Lombardy, it was no wonder that a *panic peak* occurred when the virus reached our country. It yielded the similar - initial - surge in solidarity and social cohesion we had seen earlier with major terrorist attacks. It also led to the sudden rise of confidence in public leadership – the rally-around-the-flag-effect described in chapter 6 - in which the confidence in our prime minister would quickly rise 'to almost North-Korean proportions' (Boersema, 2020; see figure 34 as well). And just like stress-theory predicts, a selective attention – leading to a collective tunnel vision - on the new threat developed in society, similar to the pattern Collins (2008) described in his phase model after a shocking incident.[11] In short: the reactions in society bore all the hallmarks of perceptions of security as described in this thesis. And they seemed to be of such vehemence, that it did not seem unreasonable to expect that these perceptions would act as a *mega-stone in the pond of society* as well, thus producing mega-effects in that society.

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[11] With the difference that, other than the shocking incidents that Collins studied, the pandemic brought a prolonged perception of threat, with a prolonged selective attention.
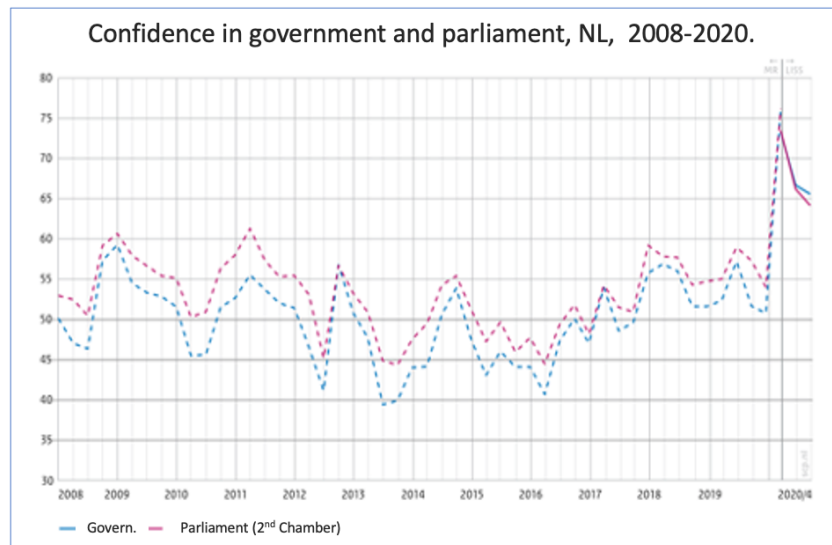
Figure 34 Confidence in government and parliament 2008-2020. In percentage of the Dutch population that rate that confidence as a 6 or higher on a scale of 1-10. (from: Dekker and Den Ridder, 2020)

To check my first impressions, I conducted a quick scan of the scientific literature on the societal effects of recent, comparable epidemics, such as those of MERS and SARS. That confirmed my line of thinking. Studies described how perceptions of risk were central to the societal dynamics in those epidemics,[12] while the type of effects described were congruent with the domains I described in the 'stone in the societal pond'-hypothesis formulated in this thesis (cf. Lau *et al,* 2005; Smith, 2006). The (empirical) literature described effects, on for instance: *wellbeing and mental health;*[13] *freedom of movement* (in which avoidance of health care played a major role as well);[14] *preventive and protective behaviour,* including the (un)willingness and (in)ability to follow guidelines;[15] *social cohesion,*[16] or for instance the *economy*[17]. I therefore paused writing on my thesis and shifted my attention to applying the insights from my research to this pandemic, to explore possible effects in society, knowledge of which might be useful for Dutch (security) professionals to prepare for what might come.

Based on my exploration, I expected that the pandemic would result in a crisis with many faces. A health crisis, of course. A psychological crisis as well however, due to the pandemic of fear, stress and anxiety that came with it. A crisis that, as the pandemic persisted, with all the limitations to daily life, could soon be fuelled by frustrations as well. I combined the

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[13] (Ho *et al.*, 2005; Koh *et al.*, 2005; Corley, Hammond and Fraser, 2010)

[14] (Chang *et al.*, 2004; Chen *et al.*, 2006; Wang, 2014; Bennett, Chiang and Malani, 2015)

[15] (Lau *et al.*, 2003, 2007; Tan *et al.*, 2004)

[16] (Lee *et al.*, 2006; Eichelberger, 2007)

[17] (Smith, 2006)

insights from my thesis with insights from the scan of the literature on epidemics.[18] This led to mind maps of what could be expected in society, arranged along the clustering in 'seven plagues' as developed in the sub studies on terrorism (Eysink Smeets, 2020a). I shared these mind maps with professionals of the security complex and (local) government, where they were widely used, and wrote articles on specific aspects for professional media.

Many developments I described in the mind maps manifested themselves indeed in the following months. The diverse effects on the economy (Elbourne *et al.*, 2020) for instance and the avoidance of medical care by non-covid patients (RIVM, 2020); the slow decrease of 'fear' of the virus and the slow decline of confidence in government (RIVM, 2021), the stigmatization of Chinese or Asian people that were perceived as associated with the virus (Fiere and Van Bon, 2020) or the rising contrasts in attitudes in society, leading to polarisation (Engbersen *et al.*, 2021) and from the shift from traditional crime to the rise in digital crime and 'trolling' (Eysink Smeets, 2020a; Nationale Politie, 2021).

After the first wave of the spread of the virus, just before the summer of 2020, The Netherlands started to relax again, heading for what was perceived as a relatively carefree summer. Then again, I used the insights developed in this thesis to explore what the next period might bring. As it was plausible that a second wave of infections would indeed hit our country, I expected an unruly fall and winter. It could be expected that the economic consequences of the crisis would be felt more profoundly by then,[19] while it could be expected as well that the confidence in both containment strategy and public leadership would decline. At the same time, 'stress-fatigue' could hit, as our resources to cope with the stress would start to get depleted. I presumed that these developments would result in more 'short-fused' social interactions and an increase of polarization in society. Following the line of reasoning in this thesis, I also expected that these trends in the *upper current* would land on the various *under currents* that had developed in the previous periods. As I described in Chapter 6, this could form a combustible mix, leading to social unrest and riots when ignited by the right trigger. Looking at the existing under currents, I feared that especially violence around the U.S. elections could form such a trigger, providing inspiration for right-wing protesters here.[20] That fall and winter the trends I forecast manifested themselves, including social unrest in the form of the *curfew riots* of January 2021, starting just more than a week after the violent storming of Capitol Hill in the U.S of January 6th.

As mentioned before, confidence in government indeed slowly declined but this trend was not the same in all segments of society. Confidence remained relatively high in the middle of the political spectrum, but was (and became) much lower at the extremes of the political spectrum (Krouwel, 2021). This was consistent with my findings of observations during

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[18] And where it concerned possible effects on crime and security with criminological theory as well.

[19] While part of the public would perceive these as more important than the pandemic itself.

[20] See for an expose on these expectations(Van der Wiele (2020): a video-interview (in Dutch) with one of the leading professional media for the public security sector, held and published just before the summer of 2020.

many of the (prohibited but partly tolerated) demonstrations which, during the first months of 2021, were held weekly at a central square of Amsterdam, with regular violent clashes between demonstrators and the police. In short interviews with demonstrators, I often saw people at the (far) left and (far) right of the political spectrum, ostensibly with distrust of government and its information on the pandemic, and with completely different views on the character, danger, and origin of the pandemic as well as on the urgency and validity of the containment strategy. Often, the demonstrators reported distrust in the *mainstream media* as well, using alternate media as their source of information.[21] Here, I regularly heard explanations on the pandemic, the containment strategy of the government, and the vaccines that others would classify as *conspiracy theory.*

The pandemic seemed to form a breeding ground for conspiracy theories in other ways as well. During the pandemic, a conspiracy theory developed on social media on Satanist paedophile rituals, in which numerous children were supposed to have been killed and buried in a small town in the Netherlands. The killings were supposed to have happened in 'elitist' circles in which, amongst others, the director of the Dutch National Heath Institute responsible for the scientific advice on the Dutch COVID-19 containment strategy would have played an important role.[22] It inspired people from all over the Netherlands to lay flowers on the graves of the presumed victims, while various people – among which the forementioned director and the mayor- were seriously threatened. [23]

The (sometimes vehement) protests and conspiracy theories form the more extreme societal reactions to the COVID-19 pandemic (and the containment strategy that was deployed). Or, to phrase it more precisely, to the *perceptions* of that pandemic and the strategy deployed. A preliminary review of the pandemic in the Netherlands – which at the time of writing is still going on - yields an image of perceptions, fears, worries, anxieties, beliefs, interests, frustrations, and ideologies tumbling over one another, resulting in a societal dynamic that, once again, often appeared irrational. What I described above may support however, that that that irrationality was once again – and at least in part - of the *predictable* form.

From the work that I did during the pandemic I have to conclude that the specific dynamics that perceptions of security bring in a pandemic such as this, have not been part of the handbooks, scripts and protocols that were prepared for these occasions. The national

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[21] Such as the *Buitenparlementaire Onderzoekscommissie (*the Extra Parliamentarian Research Commission), see https://bpoc2020.nl/de-commissie/.

[22] In this way, the conspiracy theory appeared to form a mix between already circulating conspiracy theories from for instance QAnon and new theories formed in the pandemic.

[23] I assisted the local authorities in understanding what was happening and to devise an effective counterstrategy. In this exercise, I found that, amongst others, the moral panic framework provided helpful guidance in finding leads to influence the proliferation of the conspiracy theory.

containment strategy was solely aimed at the containment of the virus, not on the societal dynamics that such a prolonged crisis brings. The Dutch cabinet was supported in its handling of the crisis by an Outbreak Management Team, in which especially expertise on epidemiology was present. Suggestions to complement this with behavioural expertise were followed, but only where it concerned stimulating compliance with the epidemiological interventions, not where it concerned the wider societal dynamics. As the minister of Health kept repeating: the way out of this crisis is by (1) hygiene (2) testing and (3) vaccination. Following the line of thinking developed in this thesis, in publications and expert meetings with the authorities involved I kept adding that a fourth action line was needed in the containment strategy well: (4) 'feeding the resilience of the public'. For that, an additional approach was necessary, addressing the other worries, concerns and fears living in society, providing perspective, canalizing discontent and sometimes just providing distraction to let of steam and to break out of the tunnel vision resulting from the selective attention (Expertisecentrum Sociale Stabiliteit, 2021; Eysink Smeets, 2021a).

8.3   Remarkable patterns

In the six periods described above, some interesting patterns can be observed. The periods in the 21st century show for instance a remarkable rhythm. A rhythm, in which each period lasted six years, starting with a crisis or combination of crises that shook the country. Above all however, in the first three periods – covering 1985 to 2008 – the threat of traditional crime forms the main concern of the public and the security complex, while in the last three periods the main threats (and challenges) for both the public as for government have shifted fundamentally. The first half of the total timeframe is predominantly marked by traditional crime, crime drop and fear drop, in the second half of the period, e.g., from 2008 onwards, the crime change, and the fear change become manifest. In the first years, this is predominantly in the form of the 'ontological threat' of the financial and economic crisis, combined with a perceived decrease of control in the form of austerity policies. From 2014 onwards, a variety of 'Black Swan events' increased perceived threats.

As described above, the year 2008 not only forms a pivotal role where it concerns the changes in (perceived) security, but in the way we communicate as well, as this year marks the start of the *social media revolution* in the Netherlands. Major technological steps in this revolution follow in the same rhythm as the periods described: with the introduction of 4G (speeding up data transfer) in 2014, followed by 5G in 2020. It led to the situation that smartphones and social media became the mainstream form of personal communication in The Netherlands by 2014, fundamentally changing the way we communicate, follow the news, form our image of the world (and ourselves), interact, network and organize.

From the perspective of the process-oriented perspective on perceptions of security, this cannot have been without (major) consequences for our appraisals of threat, or control and

for the ways of coping with these. Even more as, due to the changed ways for instance news on threatening events now reach us,[24] it can be expected that this affects the psychological distance of these events. This cannot be without influence on our perceptions of security. As noted before, I consider it remarkable that studies on the way social media affect our perceptions of security are still relatively scarce.

Beck's metamorphosis?

Of course, the events and trends described above are just a few of the changes that our world experienced in recent times. Our world, our societies, our daily lives have changed rapidly in many respects. Informatization, internationalization, informalization and individualization had profound effects on the way we live, communicate, and organize our lives. Distances in (and between) societies shrank in one way but grew in the other. The world became more cosmopolitan, but in many respects more unequal as well. According to Beck (2016) - in his last book, the book he had almost finished when he died - these changes are so profound and drastic, that it made him speak of a *Metamorphosis*[25]. A change, that made us suddenly see our word in a completely different way than before, in a similar way as in Heidegger's concept of *Ereignis* (Heidegger, 1999).

According to Beck, that sudden and profound changed perception of our world elicited intense perceptions of insecurity, with which people have to cope, creating 'stone in the pond effects' as described in the previous chapters. When people suddenly experience that their world has become more cosmopolitan than ever, it may not surprise that people who find this cosmopolitization threatening, turn to nationalism in reaction, Beck posed. When people find that their world has become too complex to understand and oversee, it may not surprise that they find refuge in simple frames and answers, as provided by populism (and conspiracy theories, I might add). Or that others turn to activism, in a way of problem-based coping, or even to violence, acting out their fears and anxieties. Could it be, that this is what we see happing in the second half of the overall timeframe? Or, even more specific, from 2014 onwards, when we suddenly confronted by the series of Black Swans described before, brought to us by completely new ways of communicating as well? Could it be that we have to see Brexit (2016), the election of Trump (2016) or the uprising in Catalunia (2017) in this light? Just as the rise of the *Gilets Jaunes,* of Black Lives Matter, Stop Blackface, Extinction Rebellion or for instance #Metoo, all in that same period? On my explorative journey, I gradually came to see this as a highly plausible explanation. Even more so, as I noticed some other trends that may support this hypothesis. I will briefly discuss these next.

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[24] Quicker, more graphic or emotional, and less filtered, from individuals and groups resembling ourselves.
[25] In the meaning of the metamorphosis of the caterpillar, that first just grows and grows, retaining its caterpillar appearance in every stage, before it cocoons…and suddenly re-appears in the completely different form of the butterfly.

A remarkable peak in stress

Layard (2020) showed how from 2006 on stress among the population in Western Europe steadily increased, in a rhythm that partly overlaps the rhythm in the periods described above. Especially striking is that the upward trend in experienced stress shows two distinct peaks: a first in 2008, a second and even greater peak in 2014 (see fig. 35). The graph may be another indication of the remarkable character of the year 2014. Layard described the trend on the same item as well for the population of the U.S. Here the peak in 2008 is less pronounced, the peak in 2014 is similar however to that in Western Europe.

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awaiting copyright permission
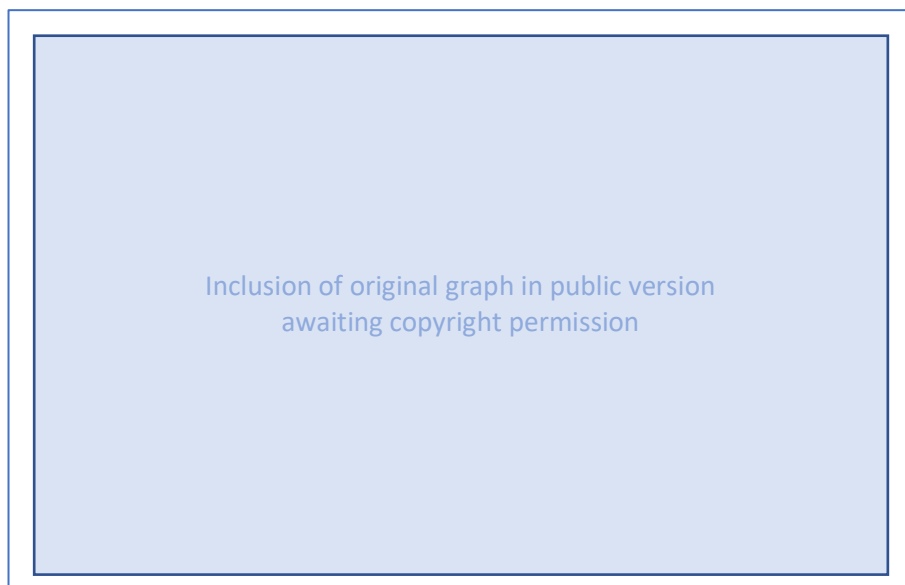
*Figure 35 Percentage of population that reported to have experienced 'a lot of stress yesterday'.
Western Europe, 2005-2017, as measured by Gallup. From: Layard (2020, p. 46)*

Increased confidence in authorities...and the opposite

It is also interesting to see that from 2014 onwards, confidence in the police started to increase in The Netherlands (see figure 36). For some, it is tempting to explain this by the creation of the Dutch National Police around that time.[26] The validity of that explanation must be doubted however, as public confidence in the Dutch armed forces showed a similar rise, just as public confidence in the police in surrounding countries (such as the U.K.) (see Eysink Smeets, 2019e). It is therefore more likely that the explanation must be sought in an explanation that transcends both the police and the Netherlands. Based on theoretical as well as and empirical arguments there is more reason to assume that the increased confidence can be explained by a rally-around-the-flag-effect, in which public insecurities transformed in an increased confidence in those institutions that may provide security. This might explain as well why (in 2016) confidence in government starts to increase as well (see fig. 34). Seen in this way, the increased confidence is not so much a reflection of for instance an increased satisfaction in the *functioning* of the police or

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[26] The Dutch national police were officially established in 2013 but started functioning as such in 2015.

government, but much more an increased need for their *function* (Eysink Smeets and Baars, 2016b; Eysink Smeets, 2019a).
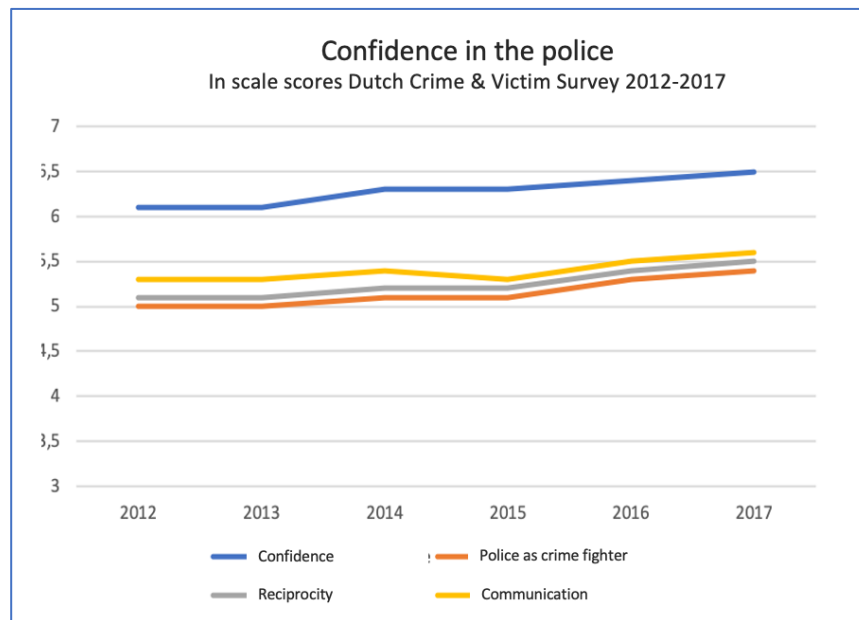
Figure 36 Confidence in the Dutch police 2012-2017. Scale scores on four constituting elements, as measured by the Dutch national Crime & Victim survey.

Above, I also mentioned the rise of conspiracy theories during the COVID-19 pandemic. That does not mean that in the periods before, conspiracy theories did not exist.[27] It can be assumed that social media have facilitated the spread of such theories however, which might explain a rise in (perceptions of) conspiracy theories as well as of scientific research in the last decade (Douglas and Sutton, 2018). The findings of this thesis give reason to assume that belief in conspiracy theories is not so much different from the coping strategy of increased confidence in the authorities described above; that the belief in conspiracy theories can be seen as a way of coping with perceived insecurity too, but then especially appealing to persons on the more extreme ends of the political spectrum (Van Prooijen, Krouwel, & Pollet 2015).[28] The theories serve to provide straightforward answers for complex situations, especially needed in times of crisis, when they provide individuals a sense of meaning, control and – thus security (Newheiser, Farias and Tausch, 2011; van Prooijen and Douglas, 2017; Douglas and Sutton, 2018; Farias and Pilati, 2021). Seen in this way, it is plausible that the adherence to conspiracy theories (of people at the more extreme ends of the political spectrum) forms the flipside of the same coin that results in increased confidence in police and/or government (of more moderate groups, as Krouwel

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[27] See for instance the narratives that emerged after 9-11, with 'alternate explanations' for the occurrence of that event, or the persistent theories on sexual exploitation of young boys in 'elitist' circles circulating in QAnon circles (Klerks, 2020).

[28] Van Prooijen (et al 2015) explain the association between political extremism and conspiracy beliefs by a highly structured thinking style that is aimed at making sense of societal events.

(2021) observed). Thus, they can be seen as *proxies* for the same underlying variable: substantial perceptions of (in)security that need to be coped with.

An increase of violence?

Earlier in this thesis, I described that perceptions of security could also affect the prevalence of violent crime. In 2016, there were indications that perceptions of (in)security in the Netherlands indeed resulted in violent behaviour, for instance against mayors around discussions on the housing of refugees or in the form of hate-crimes against Muslims in the wake of terrorist attacks (Eysink Smeets and Flight, 2020). When I noticed that recorded violent crime, including homicide, was rising in some neighbouring countries, I undertook a small explorative study of trends in recorded violent crime and perceptions of security in twelve North Atlantic countries (Eysink Smeets, 2018b). [29] The study showed that, on average, the up to then decreasing trend in homicide and (other) violent crime - as well of perceptions of security - came to a halt around 2014 and changed in an upswing (see figure 37)[30].
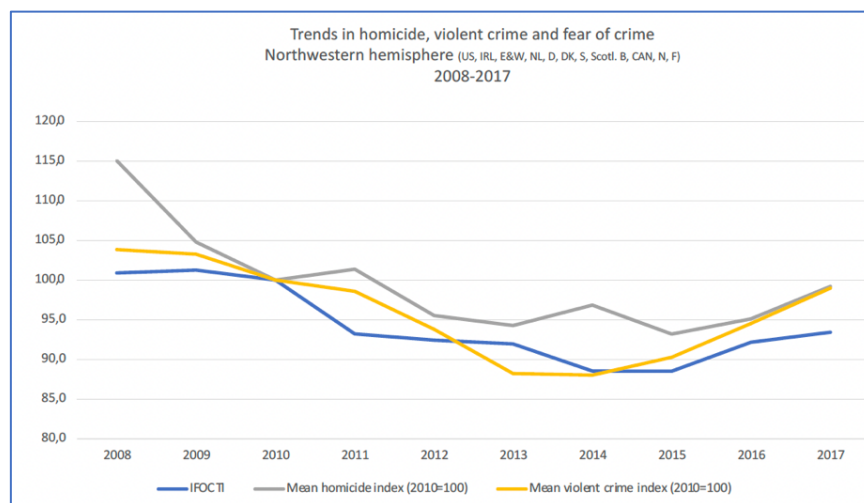
Figure 37. Registered homicide, registered violent crime and fear of crime trend index in 12 North-Atlantic countries, (U.S.A., Canada, Ireland, England & Wales, Scotland, Norway, Sweden, Denmark, Germany, The Netherlands, Belgium, and France), 2008-2017, index 2010=100.

Recorded violent crime for the Netherlands did not follow the same pattern but continued its downward path. Therefore, commissioned by the Dutch ministry of Security & Justice, I conducted a second study based on an exploration of data on violent crime and aggression

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[29] Based on the hypothesis that the events of 2014-2016 (the atrocities of ISIS in Syria, the terrorist attacks, and the influx of refugees) were, due to their psychological proximity especially felt in these countries, influencing perceptions of security.

[30] Further research is needed to determine whether that upswing was temporary (a 'bump') or persisted in later years.

in 13 different sectors of society,[31] looking for early warnings of a similar upswing as noted in the other countries. The study showed that in many of these sectors, aggression and/or violent crime, especially against professionals, was perceived to be on the rise. These claims could often not be substantiated, however, due to (substantial) methodological shortcomings of registrations and/or surveys in use. Sometimes they were contradicted as well by available data, that showed a decrease. In some sectors, such as local administration and media, available data were valid and reliable enough to speak of a (temporary or structural) rise of aggressive behaviour or intimidation.

The study also showed a fundamental shift in modus operandi: social media had become a major channel for the voicing of threats. A gradual shift in the *meaning* of violence and aggression was found as well, now including verbal abuse and insults more often than before, often as a by-product of more stringent ways of recording. The study also contained some indications that changes in governmental policy in some sectors (such as in youth care) fuelled frustrations of citizens, increasing violence against professionals in these sectors. Finally, when taking a better look at the Dutch national crime statistics on the most prevalent forms of recorded violent crime, it was found that the 'willingness to report' violent crime to the police had sharply decreased.[32] When the data on the most prevalent types of violent crime[33] were corrected for this decline, the decrease of recorded violent crime changed in an increase, showing a similar pattern as observed in the other countries (Eysink Smeets and Flight, 2020).

In (some) countries, (some) studies have been done on explanations for the observed rise of (some) forms of violent crime. That yielded different results (see cf. Gaston, Cunningham and Gillezeau, 2019). In 2018, the U.K. Home Office organized an invite-only conference for representatives of five of the countries involved in my first explorative exercise, inspired by a similar observation of a possible trend change. At this conference, the dominant explanation was found in changes in drug crime and drug trade, unfortunately without any (scientific) evidence that could support that conclusion (Home Office, 2019). Further research is therefore desired, in which the possible association with a change in perceptions of security - an association that up to now I have not seen to be considered - deserves further scrutiny as well.

8.4   Conclusions

In the periods in Dutch security, security perceptions and security policy covered in this chapter, many of the trends, mechanisms, and patterns I described in the previous chapters

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[31] These included local administration, media, police, education, sports, public transport, et cetera.

[32] Why that was the case fell outside the frame of the research. A possible explanation is the closing of many police stations when the Dutch national police was formed, who were concentrated on fewer stations.

[33] Unlawful threatening and abuse.

come to life. In the first three periods, between 1985-2008, the main challenges for both the public as the security complex are formed by traditional crime and fear of crime. It is in this timespan as well that *crime drop* and *fear drop* become clearly visible. It is in this timespan as well that public fear, concern and/or discontent about crime – that at the individual level may have been dysfunctional for some – turned out to be functional at the collective level: leading to innovation of security policy, a substantial decrease of crime and disorder as well as a substantial decrease of fear of – and again concern and discontent about – crime.

From then on, a *crime change,* and *fear change* become clearly manifest, in which the period of the financial crisis (2008-2014) forms a transitional period. As in this same period the social media revolution comes up to speed, it is apt to say that in this period a *context change* unfurled as well. There are many indications that in these changes a pivotal point can be found around the year 2014, bringing about a situation that bears all the hallmarks of Beck's Metamorphosis. A period in which we seem to be *waking up in a new world,* confronted with an amalgam of new threats; threats that bring new public 'fears' in society. From the theoretical point of view as developed in this thesis, it can be expected that these 'new fears' in turn led to new effects in society as well. The explorative character of this study of course does not allow for statements on 'proven' effects and 'proven' causal relations. It gives reason to reflection though, that many trends and events unrolled in Dutch society that remarkably well fit the processes and the 'stone in the societal pond'-hypothesis as proposed in this thesis. In social cohesion or polarization for instance, in trust and distrust of authorities, in selective attention, in civil unrest and/or maybe even violence.

Finally, over the periods a difference can be observed between perceptions of security of the public and the perceptions of security of the authorities in the security complex. At various points in time, it seems as though security policy and the security complex had trouble in keeping up with changes in both actual security situation and the perceptions of security of the public. At the same time, security policy and the security complex were mostly aimed at (f)actual threats of security but not on the perceptions of security that accompany these, and which can have their own effects in society. That became visible once more in the national strategy on the COVID-19 pandemic in the last period: almost completely focused on the containment of the virus, and far less on the societal dynamics due to the pandemic of worries, fears, and anxieties that the COVID-19 pandemic carried in its wake. The question must be raised what can be learned from this and whether well-thought-out interventions to mitigate perceptions of (in)security could mitigate these effects to prevent harm on both the short and the long run. As described above, it is for instance plausible that some of the effects form layers in collective memory and/or society, in which the residues of effects in the previous period may form undercurrents in the next period, on which new effects in that period may 'land' and/or be amplified.

9   Conclusions, reflections & implications

The security landscape in the western world has changed rapidly in the new millennium. With that, public perceptions of security have changed as well. From the 1960s onwards, (the rise in) violent street crime and property crime had become a major cause of concern for the public in many western countries. The perceptions, judgements, worries, and anxieties associated with that crime were collated under the umbrella-term *'fear of crime'.* Due to the widespread prevalence of that fear of crime and the behavioural reactions that came with it, fear of crime was soon considered to be a social problem in itself. Researchers started to venture into this new field of interest, leading to a new sub discipline within criminology: that of fear of crime studies. In the almost five decades of its existence, this sub discipline yielded a substantial body of knowledge. That body of knowledge is somewhat lop-sided, however. With much attention on operationalization, measurement, and determinants of fear of crime. But with far less attention to the mechanisms and processes by which these determinants actually lead to fear of crime, to its (harmful or beneficial) effects in society, and to the longitudinal trends in prevalence or character. Above all, however, the sub discipline of fear of crime studies seemed shallow on theory. In recent years, a handful of exceptional researchers certainly made promising progress, venturing interdisciplinary paths. But overall, theory formation cannot be considered as well-advanced. Combined, this led to the situation that we *knew* a lot about fear of crime but *understood* far less. Could it be that we had come to the limits of what could be reached by the dominant research paradigm in fear of crime studies: quantitative, positivist, and reductionistic? Finally, fear of crime studies was still mostly focused on the fear of crime that we had grown so familiar with in the last century: the fear of 'traditional' violent and property crime. Research on 'new fears', such as related to cybercrime or terrorism and related perceptions of security was still scarce. Had the research domain difficulty in keeping up?

These were the assumptions I set out with in this *explorative* study, assumptions that were validated in the first step of my explorative journey. That journey aimed to *increase our understanding of the fear of crime and related perceptions of security in contemporary society, the way they form and the impact that they have in society.* This aim was divided into four sub questions: (1) what can be considered the fear(s) of crime and related perceptions of security in contemporary society, and what sub constructs do they contain?; (2) how do these perceptions of security form?; (3) what are their effects in society?; and (4) what are the longitudinal trends in their prevalence? Underlying those questions is a question that can be characterized as conditional. And that is how we can strengthen the theoretical foundations of the study of fear of crime and related perceptions of security and/or how we can come to a different research paradigm.

The body of knowledge of fear of crime studies formed the starting point of my explorative venture. Its concepts, its theoretical notions, its empirical findings. To strengthen the

theoretical foundations, I drew from (social and environmental) psychology, integrating theoretical notions on for instance perceiving, appraisal, and coping, with Lazarus' transactional theory on stress as major component. As a second step, I incorporated the paradigm of complexity studies and its concept of society as *complex adaptive system,* thus giving way to a greater understanding of the complex interactions between events, persons, and contexts. With these theoretical perspectives in mind, I progressed on my journey. A journey that followed the tradition of *explorative research* that, other than the *confirmative research* that is so dominant within fear of crime studies, does not aim to yield final and conclusive answers, but intends to come to new hypotheses, generalizations or explanations that may have been overlooked before. A journey, therefore, that aimed to stretch the boundaries of fear of crime research, bringing it 'out of its comfort zone', and possibly, coming to new middle range theory. This might in turn open new avenues for confirmative research. In that same tradition of explorative research, my journey involved a cascade of smaller and larger studies, executed in concatenated fashion, in which each study built upon the previous one(s), and in a continuous back-and-forth between theory and empirics and micro- and macro level.

9.1   Conclusions

Fear of crime has always been a somewhat confusing term, as in the research tradition the term is used for more than (just) fear of more than (just) crime. It is an 'umbrella term', used for the multitude of public reactions to crime and disorder, while in these reactions many sub constructs can be distinguished as well. With the rise of (re)new(ed) crimes and threats in the new millennium, the variety of constructs has increased even further.

In the existence of such a multifaceted concept lurks the risk of *terminological chaos.* This chaos can only be avoided when we are very precise on what construct is meant or studied, in which context, at what aggregation level, at what moment in time. In the fear of crime literature, this has up to now not always been the case. To compare it to *ornithology:* we speak too often about *a bird*, whereas we sometimes mean an eagle, sometimes a colibri and sometimes even worse: just a wing or a beak.

In this thesis, I defined six dimensions along which the concept can be dissected. The first is the type of perceived threat in question. Fear of crime as studied in the first decades of the research tradition was mostly associated with 'traditional' forms of crime, such as property crime and violent crime, even though that 'fear' was sometimes concrete and easily related to a specific threat, but at other times more diffuse and related to an experienced insecurity in general. The new millennium brought fears as well for (re)new)ed forms of criminal acts, such as for cybercrime or terrorism. It also brought 'fears' for threats that were not criminal per se, but that – other than for instance natural disasters – were associated with acts of 'others', in combination with a moral load, thus leading to

substantial similarities with traditional fear of crime in their manifestation, formation, and effects. As for instance determinants of these different forms or manifestations can (partially) differ, it is important to able to distinguish these as different, though related, (sub) constructs. Following the ornithology-metaphor, in this thesis I proposed to come to a classification in a *family* of perceptions of security, consisting of different *genus* (such as fear of crime) and *(sub)species* (such as fear of sexual crime), underlining the individual characteristics of each species, but the shared traits of the family and genus as well.

The perceived threat in question is only one of the dimensions that need to be taken into account in a classification of (sub)constructs. A second dimension is the (cognitive, affective, or conative) character of the construct in question: are these thoughts, judgements, attitudes, feelings, sentiments, or behaviours? The third is the aggregation level that the perceptions of security relate to. Do they concern the security of oneself, of the neighbourhood, community, or a specific situation, or of society in general? With as important definer: is the risk, threat or harm perceived as proximal or distant?

The use of these last two dimensions is already quite common in fear of crime studies. I defined more dimensions however, that may be relevant to disentangle the multitude of sub-constructs. As the fourth dimension I defined the (type of) individual or group that experiences the security or insecurity. A fifth dimension is the aggregation level at which the perceptions of security *manifest* themselves. Is that at the individual level (at which level fear of crime is traditionally operationalised or measured), or at the collective level? The latter can for instance be in the form of a moral panic, or in the form of a culture of control. This fifth dimension is grounded in complexity studies and its concept of emergence, that proposes that such manifestations at different aggregation levels can stem from the same root, only manifesting themselves in different ways at different levels (and mutually influencing each other). The paradigm of complexity studies tempts us here to study the manifestations at different aggregation levels in relation to one another.

A sixth and last possible distinction is along the temporal dimension. That is, along the lines of the vehemence, volatility, and visibility in which perceptions of security manifest over time. In the fear of crime literature, these perceptions of security are often considered relatively stable. That may *partly* be the case when studied at higher aggregation levels, at lower levels much more difference is observed; where perceptions of security can be simmering and hardly noticeable in some conditions but – under other conditions - can be 'flashing', becoming clearly visible. This study found indications that especially these 'flashing' forms may show a curvilinear pattern, a pattern that even may be subdivided in distinctly different phases, each with a different character. Further research is needed however to see if this supposed curvilinear and phased pattern stands up to further scrutiny.

How these perceptions form

In this thesis I propose a *process-oriented perspective on perceptions of security*, that may explain how these perceptions – with all their sub constructs – form. This perspective is of an interdisciplinary character, in which Lazarus' transactional theory on stress, combined with notions from complexity sciences form the backbone.

The process-oriented perspective proposes that people use combinations of proximal cues from the (social, physical, institutional and criminal) environment to form an impression of the distant variable security. People learn what cues can be used by way of social learning and experience, a process that evolves consciously and subconsciously, resulting in 'mental maps' of the environment and the conditions in which threats may be present, as well as how and to what extent these can be handled. In daily life, these cues are mostly processed in an automated, fast, intuitive way. Indications of a possible threat to one's wellbeing lead to different appraisals: a primary appraisal of the *'threat'* and its possible consequences, and a secondary appraisal of the resources available to ward off that threat *('control').* Based on the meaning that the combination of primary and secondary appraisal is given, a choice is made for the way in which the perceived threat or risk can be coped with.
The choice of coping strategies depends on a individual preferences and capabilities, and the type of stressor. If that stressor is considered changeable, a problem-oriented coping style may be the strategy-of-choice. If the stressor is not considered changeable, emotion-based coping may be the preferred strategy. After the choice of coping strategy (or strategies), a process of continuous *re-appraisal* starts, to see if and to what extent the threat is neutralized. If the coping is successful in reducing stress, the coping is considered 'adaptive'. If the coping is not reducing stress, the coping style is 'maladaptive'.

The process described above may look rather straightforward. The process is *transactional,* however: as process and outcome are determined by the person(s) and the context(s) in which the process takes place. Three clusters of mechanisms and sub-processes therefore need to be taken into account. First, the process is influenced by heuristics, biases and other mechanisms that 'skew' individual perceptions and appraisals, leading to different perceptions and appraisals than rationality might expect. This brings the process into the realm of Ariely's (2008) *predictable irrationality.* Second, the outcome of the process is influenced by personal characteristics of the individual, the situational context in which the process takes place and of macro (socio-cultural and socio-economic) trends in society. This may for instance also result in the *resonance* of collective (ontological) fears and of 'social mood' in individual perceptions of security. Third, the process may lead to changes in perception, judgements, attitudes and behaviour ('primary effects'), that in turn can elicit changes in perceptions, judgements, attitudes and behaviours in others (follow-up-effects). These effects impact the same environments that provided the initial cues for the process, thus influencing the (continuous) process of re-appraisal. The process in which perceptions

of security form must therefore be considered a *circular process by definition*, which also means that perceptions of security are *dynamic by nature*.

These phenomena combined make the process in which perceptions of security form not only *complicated,* but above all *complex* as meant by complexity science*.* The process-oriented perspective on fear of crime is therefore based on the presumption that the understanding of the perceptions of security can only be reached by using the paradigm of complexity science and its perspective of society as a *complex adaptive system.* That comes again with some specific notions. The first is, that the formation of perceptions of security is so dependent upon the intricate interplay between different actors and events in society, that they can only be understood in their specific (temporal, social, cultural) context. The second is that these different actors and developments interact in a multidirectional way, and in linear, but also non-linear relations, with intra-process feedback loops and causal cascades. Following the complexity paradigm, this also means that exact prediction of perceptions of security is not possible, but that certain outcomes are more likely than others and that specific *patterns* can be expected as well. The last notion is that, as described above, perceptions of security at the individual level can lead to (other) manifestations of perceived security at higher aggregation, as *emerging properties* of the complex adaptive system, while these collective manifestations of security feed back into those at the individual level as well.

A last notion on the formation of perceptions of security is that they not only arise 'spontaneously', as the result of the presence of relevant cues in the environment. Because of the effects that perceptions of security can have in society (see below), legitimate as well as illegitimate actors intentionally aim to influence the process in which perceptions of security are formed to obtain to achieve other (commercial, political, ideological, criminal, geopolitical) goals.

The effects of perceptions of security

The third sub question of this study was on the effects that perceptions of security may have. The body of knowledge on these effects up to now has not been well advanced, while it is unevenly spread over the different (sub)constructs. Notwithstanding that unevenness, the nature and character of the effects that *are* known show distinct patterns, with primary and follow-up effects, and with effects at all aggregation levels.

The domains of societal life on which these effects manifest themselves cover *wellbeing* and *health*, *freedom of movement* and use of amenities, *prevention and protection* (including the carrying of arms)*, social quality* (social cohesion, informal social control, exclusion of 'others'), *participation*, the *physical environment* (such as in urban planning and architecture), the *economy*, *policing, security and the criminal justice system,* and (attitudes towards and content of) *politics and policy.* Lastly, perceptions of security can

impact the prevalence and character of the perceived *risk or threat* (crime) it may have started with. At higher aggregation levels, the effects of perceptions of security reflect once again the complexity's concept of *emergence*; in the emergence of *collective or cultural manifestations* of perceptions of security, in the emergence of *organizations*, or in the *condensing* of perceptions of security in completely different domains of society, such as in urban planning and architecture.

This rather consistent pattern of effects that can be observed as a result of different perceptions of security made me speak of those perceptions as *a stone in the pond of society.* With small stones causing small ripples, and big stones causing large waves, thus bringing the whole pond in turmoil. The complexity paradigm warns though that even small ripples - small changes in behaviour, attitudes, feelings can set off large and lasting changes in a system.

Finally, the effects of perceptions of security can be very functional (at the individual level or at the level of society as well) but can take on forms or intensities that must be considered dysfunctional (for an individual, community and/or society). There is reason to assume that the distinction between functional and dysfunctional is not a function of a linear continuum, but is marked by a *tipping point*, occurring when a threshold is surpassed. What constitutes that threshold under what circumstances deserves further research. A pattern that resembles that somewhat is that – as a result of the transactional character of the formation process - similar perceptions of security can yield opposite effects, depending on the specifics of person and context. This underlines once more that perceptions of security can only be fully understood when these characteristics are taken into account.

Longitudinal trends in the prevalence of fear of crime

Studies on longitudinal trends in the prevalence of *crime* are quite common, and showed an international *crime drop* in recent decades. Studies on longitudinal trends in *fear of crime* were up to now almost absent. This thesis showed that this lacuna cannot be the explained by a lack of data: there are longitudinal data of fear of crime in abundance. These data stem from different surveys from which the findings in themselves may be hazardous to compare. When an index is constructed in which only the direction of the longitudinal trends found in the different surveys is determined and combined, these hazards may be circumvented. At least: in part. Even the construction of such an index cannot overcome for instance that in longitudinal surveys on perceptions of security the issue of temporal measurement (in)variance is often neglected, while there are certainly indications that these surveys may suffer from such variance. Bearing that in mind, this study showed that that in many countries in the western world fear of crime *is* going down, in a similar (structural and substantial) way as the much-described *crime drop*. This suggests that in this part of the world we can speak of a *fear drop* just as well. The time that this 'drop' in fear of

crime sets in differs somewhat between regions –a few years before the millennium-change in North America, a few years after that change in West and Northern Europe for instance– but the direction is consistent. The Index shows too, that crime *concern* in these regions is especially strong around the time the decrease sets in. In non-western countries the trend is more varied, while the determination of an index is hindered here by a smaller number of available data.

On longitudinal trends in other perceptions of security, even fewer studies (and far less data) are available than on traditional fear of crime. The data available on two important 'new fears of crime' - perceptions of terrorism and perceptions of cybercrime - suggest that these fears have become widespread in (western) societies in the second decade of the new century. Their prevalence is increasing even to the extent that these new fears can now be considered to exceed the traditional fear of crime. Combined with more qualitative findings presented in this study this supports the hypothesis that we can not only speak of a f*ear drop*, but of a *fear change* as well.

A greater understanding of fear of crime and related perceptions of security?

The central challenge this study set out with was to achieve a greater understanding of the fear(s) of crime and related perceptions of security in contemporary society, the way they form and the impact they have in society. This study contributed to achieving that goal in three ways. First by taking a more *explorative stance* to the study of perceptions of security, in which the focus is shifted as well from a reductionist stance (the study of a single aspect of the formation of these perceptions in *depth),* to the study of multitude and interplay of aspects in their *full width*. The second is by filling lacuna in the body of knowledge, such as on new(er) manifestations of perceptions of security; the effects of both 'old and new fears 'in society; and on the longitudinal trends in prevalence of these and their effects. The third is by expanding the theoretical foundations of the study of these perceptions, by making a greater use of notions from social and environmental psychology – and from stress studies in particular -, and by introducing the paradigm of complexity. This resulted a transactional, *process-oriented perspective on perceptions of security* that may contribute to the desired increase in understanding. That may especially be the case, as the continuous back-and-forth between theory and practice that was characteristic for this explorative study gave reason to believe that the theoretical explanations that this *perspective* offers are highly consistent with the empirical findings from fear of crime studies.

9.2   Limitations

It cannot be repeated enough: this thesis is an *explorative* study, with all the strengths and weaknesses that comes with that type of research. It is therefore a reconnaissance of new pathways, lines of argumentation, conceptual or theoretical notions that are *plausible,*

without the pretension of certainty (if that would even be possible in the social sciences). If this study is trying to 'prove' anything, it is the value of leaving familiar grounds, exploring new ventures, and of trying a new research paradigm and taking an inter- of even transdisciplinary perspective. Progress in this complex research domain could benefit from a continued game of academic 'leapfrog', in which explorative and confirmative research alternate; exploring perceptions of security in depth as well as in their width; and with explorative research providing new possible perspectives, hypotheses and theories, which in turn can be proven or falsified by confirmative research.

A more technical limitation is that, although I suggested in chapter 3 that studies of fear of crime (and other perceptions of security) should be more specific on the sub constructs that were the focus of each study, I did exactly the opposite in the chapters that followed. Using the umbrella-terms of fear of crime, fear of terrorism and so on, as well as the even vaguer 'family-name' of perceptions of security, I sinned against my own rule, and even did that deliberately. If I had been specific each time on the different sub constructs at hand, my text would have become unreadable. Even worse, it would have obscured the grand line of my argument, the points that I was trying to make, the overall message of my line of reasoning. Therefore, in this *explorative* study, in which I treated the formation of perceptions of security mostly at a meta-level, I considered the umbrella-terms *helpful*. I would immediately switch to the specific naming of sub constructs when conducting a study on a more specific topics and/or when conducting a confirmative study.

Another limitation has to do with the more philosophical question of what constitutes security and perceptions of security. Following the mainstream in criminology, one could say that the focus in the study of fear of crime is focused on the 'negative' side of perceptions of security: on what makes people perceive *insecurity.* The question must be raised whether 'security' is just the absence of 'insecurity', or whether that can be seen as a separate phenomenon? Recently, this question has received new attention through the development of *positive criminology*, a sub discipline within criminology that developed after *positive psychology* gained ground (cf. Schuilenburg, van Steden, & Oude Breuil, 2014). It is just a thin line between positive *factors* that decrease or protect against fear of crime and related perceptions of security and *positive security.* If I restrict myself to Dutch research, Boers, Steden, & Boutellier (2008) for instance, distinguish between positive and negative factors that influence fear of crime. They found *resilience, quality of life* and *trust in the neighbourhood* to have mitigating effect on fear of crime. They called these positive factors, as opposed to negative factors as the prevalence of crime and actual victimisation. In the same way, Blokland (2008) for instance introduced the concept of *public familiarity*, as a phenomenon that mitigates fear of crime. One could say that these factors have a positive character, but are they not still used to explain an *absence* of fear of crime? Even more, in the process-oriented perspective on perceptions of security these factors are just an inseparable part of the process in which perceptions of security form, as factors like these are the core of the secondary appraisal (that of 'control') that is part of this

perspective. The question is if these or other factors can also lead to the *presence* of something else, a 'something' that is experienced as a positive form of security in itself? As other Dutch researchers have pointed out as well, in Dutch we have the word and concept of *geborgenheid* that comes close (cf. Schuilenburg, 2019). It is a feeling of certainty that you will be treated kindly, careful, and warmly and that you can be yourself without people abusing that situation (as I write that down, I notice how hard it is to describe a situation of security *without* the absence of threats). *Geborgenheid* is the comfort of a little child on its mother's lap, a feeling that can be felt by adults as well in specific situations. It could be that such a positive security can be found in for instance place attachment (Brown, Perkins and Brown, 2003; De Donder *et al.*, 2012) . Experiments that I did myself with ambient factors give reason to suppose that an aesthetically sound environment might induce a perception of positive security as well (Eysink Smeets, Van 't Hof and Hooft, 2009; Eysink Smeets *et al.*, 2012; Zandbergen and Eysink Smeets, 2012). Further research here is certainly necessary. In this thesis, I focused on security in its negative meaning, but with the wholehearted acceptance that this concept is influenced by both negative and positive factors and that *both* types of factors need to be addressed to improve perceptions of security.

Further limitations have to do with limitations of the different sub studies that this study built upon. The exercise in which the International Fear of Crime Trend Index was developed had its limitations as well for instance. This exercise might have led to a complete thesis in itself perhaps, which might have given the opportunity to spend more time working on further refinements, such as on more sophisticated forms of weighting of data, especially where it concerns the weighing of countries within regions, preferably by the size of their population as well. As described in chapter 7, not expecting to assemble so many data from so many countries, we build the Index in simple software that hindered further refinements in a later stage. Another example is the work on effects, that here included only a qualitative description of effects, but that could benefit greatly from a more quantitative analysis as well. I see these limitations first and foremost as opportunities for further research, however, to which I will come back to later in this chapter.

9.3   Reflections

The rapidly changed security landscape in western societies constitutes major challenges for our societies, for the organizations in our security complex that affected public perceptions of security. This thesis gives rise to the thought that both the organizations in our security complex as well as the study of security perceptions (such as fear of crime studies) have difficulty in keeping up with these changes. In the first periods of Dutch security and security policy that I described for instance, security policy was repeatedly adjusted based on public perceptions of security (or better: public discontent), but with a time lapse. It took time before changes in societal perceptions and needs were picked up by

politicians and policymakers. Although *predictive policing* has become a buzzword in security policy, it appears that the organizations in the security complex had difficulty in (for)seeing major changes in the security landscape as well, and to adapt in time to the challenges at hand.

In the Netherlands, the security complex was completely restructured between 2008-2014, based on the lessons learned in the previous periods, where 'traditional' crime' formed the major challenge to public security. That restructuring was just accomplished when the security landscape changed rapidly and drastically. The professionals that held key positions in the restructuring of that complex (and often still hold such a position) acquired their experience and expertise in the period of traditional crime and the *crime drop*.[34] Researchers who studied that crime drop suggested that one of the most promising explanations for the decline may be that we learned to understand and influence the opportunity structure for the property and violent crimes that formed the mainstay of crime in those days (Farrell *et al.*, 2008; Van Dijk, Tseloni and Farrell, 2012; Farrell, Tilley and Tseloni, 2014). Now not only new threats have risen, bringing new 'fears', but they are set in a changed societal context as well. A societal context that now consists of an analogue and a virtual world; with revolutionary changed ways of communicating and perceiving; a growing perception of inequality in society; and a changing trust in authorities. This new societal context is characterized as well by various forms of climate change. Not only in the not only meteorological meaning, but geopolitical, political, and social as well. We are thus faced with a *crime change* and a *fear change,* set in a *context change.*

To face these new challenges using the logic models of the past could be a recipe for failure. We have to consider that these new challenges have their own, completely different opportunity structures, which may mean that we have to understand these new structures, before we are able to successfully meet the new threats we face. I do not see convincing signs that in The Netherlands we are making that shift, nor that we are even aware of the necessity and urgency to do this.[35]

This is even more the case where it concerns the necessity and ability to address public perceptions of security. In the time that traditional crime formed the major challenge, it was certainly professed that mitigating fear of crime formed an important aim of security policy. Most of the time this was not substantiated however with clear goals, a well thought

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[34] The minister of Security and Justice who was responsible for the restructuring even explicitly mentions this in his biography (Meerhof, 2019).

[35] I cannot rule out however, that we made it extra difficult to come to such a shift, as our security complex is restructured in even larger, more concentrated organizations than they already were, at a greater distance of the public, and vertically organized under a *superdepartment* of Security and Justice, while society itself shows an opposite trend of horizontalization, flexibilization and networking.

out strategy and/or actions. Over time, this has not significantly altered. The crime change brought new fears however, making this lack of attention even more poignant. Especially since our western societies developed into an *experience economy* and *emotion market* (Piët, 2003) in which the importance of experiences, perceptions, emotions grew and grew. The recent corona-pandemic showed in the Netherlands how perceptions of security indeed affect the dynamics in society in many ways; ways that – if one wished and tried – to some extent could be foreseen as well. In the Dutch strategy deployed to counteract the pandemic (scientific insights on) these perceptions and dynamics hardly played a role, however.

Seeing the impact of perceptions of security in society as described in this thesis, it would be a costly mistake to keep neglecting their relevance in public policy. This means that we have to revalue that relevance. Not only in policy and practice, but in academic research just the same. The study of fear of crime for instance (still) has a somewhat peripheral position, within its 'mother discipline' of criminology. At the same time, the *effects* of these fears have a peripheral position within fear of crime studies. That means that these effects form a 'peripheral issue within a peripheral subdiscipline'. In counter-terrorism studies it is not much different. As I noted earlier in this thesis, this discipline hardly pays attention to the one core instrument that terrorists use to achieve their aims: fear. That strikes me as studying agriculture without paying attention to water. Or studying the craft of carpenters, but 'never mind the hammer'.

I often have the feeling that studying or controlling crime (or terrorist attacks, or...) is seen as *sexier* than working on the 'fears' that accompany these have in society. That crime is considered 'hard', and fear as 'soft'. It also often appears to me that fear of crime and related perceptions of security are considered as being too complex, so that studying or trying to influence these is simply a waste of time and effort. In that situation, information on the impact of perceptions of security is easily experienced as *uncomfortable knowledge* (Rayner, 2012)*,* because…"what can one do about it? Its beyond our control….".

Of course, this study showed that the process in which perceptions of security form *is* complex. Even to the extent that the paradigm of complexity science is needed to come to a better understanding. But we should better get used to facing complexity, as the world we live in becomes more complex every day. What is even more important: for those who stand up to that challenge, perceptions of security can be understood, and, as practice has shown, even expected and influenced.

In my experience, however, sometimes it is not 'fear of complexity' that stands in the way, but exactly the opposite. Regularly, especially in policy and practice, assumptions on the causal relations that lead to perceptions of security are simple, monocausal and monodirectional, and unfortunately *too* simple to have any validity. Here, it is the *illusion of explanatory depth* (Rozenblit & Keil, 2002) that stands in the way of seeing perceptions of

security for what they are, how they form and what effects they have in society. I see that reflected in the way survey data on perceptions of security are often being used as well. My country sits at the top of the world where it concerns the number of surveys available that measure fear of crime. The amount of time that we spend on thorough analysis of these seems to be inversely proportional to the abundance of data however, thus inhibiting that we look the slightest bit further than year-on-year differences of individual items, with which we miss the opportunity to understand what is really going on. The fact that the *fear drop* that I described in this thesis went unnoticed for so long may prove that point.

The way we seem to miss the relevance of perceptions of security in both research and in practice reminds me of an – in the Netherlands often quoted – saying of the late Johan Cruyff, the famous Dutch soccer player. He grew to be a Dutch icon because of two things: his qualities on the green grass of the football field; *and* his grass roots philosophies, derived from football, but with a far greater meaning. *"You only see it when you get it",* is one of his most famous quotes (Winsemius, 2009). By this he meant that things can be very simple and even inevitable to miss, but once you know how it works and you know where to look. In my opinion, this is exactly the challenge that we face in the case of perceptions of security. As, let me repeat it once again, due to their effects the relevance of these perceptions in society is far bigger than we often presume. Even more so in contemporary times, in which traditional fear of crime has decreased, but new 'fears' have emerged. And where we can see new threats that will have major impact on public perceptions of security looming on the horizon.

It makes it necessary as well to widen the scope of the research tradition I started out with on this explorative journey: the study of fear of crime. If we keep limiting the study of perceptions of security to traditional fear of crime, we end up perpetrating a kind of criminological archaeology. And if we keep limiting our attention to just the manifestations of these perceptions, without paying attention to their effects, we miss the opportunity to fulfil one of the contemporary desires of criminology: to be a *science with impact.* With this study, I attempted to contribute to the development of the study of fear of crime and other perceptions of security in that direction. With a similar aim of that of Lee & Mythen, (2018b): to stretch the boundaries of fear of crime research, bringing that out of its comfort zone. To achieve that, I had to stretch my own boundaries as well, for which I now am grateful.

Back to the beginning?

I commenced this thesis with a little exposé on the feeling of coldness and how that – at first sight – small, unimportant but uncomfortable feeling of coldness leads to chains of effects in society. Effects that we normally forget to associate with that feeling, but which find their source in that feeling, nonetheless. I hope to have substantiated with this thesis, that our fear(s) of crime, our perceptions of security work are not much different.

Influencing our life, our communities, our society in much the same ways, without often being aware of. There is another, much more profound, similarity however, between our 'perceptions of coldness' and our perceptions of security. That is the way we perceive (and cope with) the climate change; a change that has been predicted for so long, but now appears to manifest itself more and more in unprecedented and harmful weather patterns, such as the floods that hit The Netherlands and its neighbouring countries in the summer of 2021, costing many lives. In the way we address the possible threat of the climate change, I see once again many of the patterns and mechanisms I described in this thesis. It formed up to now for most people a distant and abstract threat, as something of the far future, a threat that we could easily cope with by denial as well. Now that the Intergovernmental Panel on Climate Change suspects that the climate is changing even faster than all models predicted (Harvey, 2021), the moment approaches that the threat of climate change will become very concrete and proximal, manifesting itself in various ways. We have to anticipate that this may affect our perceptions of security as well, in unprecedented ways, resulting in a 'stone in the societal pond'-effect of unprecedented magnitude. I think w*e'd better be prepared.*

9.4   Implications for research

This study underlines the necessity to widen the scientific focus; to cover new fears of crime, new types of perceptions of security as well, thus expanding the existing focus on traditional fear of crime. That raises the question was well, whether the study of these perceptions could benefit from a 'meta-discipline' of perceptions of security. As mentioned before, the body of knowledge on different fears of crime, on fear of terrorism, on moral panics (and so on) is uneven developed in the different fields of study, while findings in each field may be beneficial for the others. The study in each of these domains can benefit as well from the further development of a truly inter- or transdisciplinary approach, [36] for which the present study may provide another steppingstone.

For a fuller understanding of the dynamics and relevance of perceptions in society, more focus should be laid upon the formation of these perceptions and on their effects in society than up to now has been the case. As a next step, (more) research is needed in the way these perceptions may be influenced. This is not only necessary to advance the academic study of these perceptions, but to come to the – nowadays so often desired – science with impact. As a step in this direction, this study proposed a new interdisciplinary theoretical perspective on perceptions of security. A perspective that made greater use of theoretical notions from stress-studies and complexity science in particular. The results of course

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[36] Practical steps to initiate such an 'integrative' movement may be the creation of a community of researchers, the introduction of an academic journal devoted to perceptions of security in the broadest meaning of that word and/or the organization of a regular academic conference with the same focus.

should be subject to further academic debate, in which - after this *explorative* exercise – *confirmative* research can test whether the different (sub) hypotheses on which the process-oriented perspective is founded indeed withstand the empirical test. The present study also supports the suggestions of -among others - Lee & Mythen (2018), on the necessity to leave the harness of quantitative, reductionist research and move towards a different and/or broader research paradigm. The theoretical perspective of the *process-oriented perspective on perceptions of security*, and especially the complexity paradigm that it encompasses, again may help explain why a purely quantitative, reductionist research paradigm is deemed to fall short; that other research paradigms and methods are needed to grasp that complexity; and that mixed methods may be a promising way to go in the desired direction. Given the complexity, methods that make a greater use of big data and artificial intelligence may also be promising.

This thesis also distinguished many 'smaller' themes that require further scrutiny. The development and use of a stricter classification of (sub-constructs of) perceptions of security, thus enabling better comparability of the findings of different studies. The influence of *moods* in the formation process. Or the various temporal aspects of perceptions of security, such as a greater attention to temporal measurement invariance in longitudinal surveys or, phrased in a more generalized way, to the issue of shifts in meaning of crime and other perceived threats over the years. The surprisingly great number of surveys and monitors that exist in many countries provides a wealthy source that the present study only *started* to tap. The data that were assembled in this study could still be increased greatly if the language barriers can be overcome in a better way than was possible herein. A last 'temporal' issue that calls to be uncovered further is the curvilinear pattern that was presumed to exist in (more 'flashing' and/or experiential) perceptions of security, with different stages that may yield different effects as well.

The difference between functional and dysfunctional, between problematic and non-problematic perceptions of security, still require further research as well. Is there indeed a threshold that needs to be surpassed, a 'tipping point', that leads to a sudden change from functional to dysfunctional, as presumed in this study? And what constitutes that tipping point?

The instrumental use of perceptions of security, both from regular organizations as from illegitimate users, still seems to be an under researched subject. A dangerously under researched subject even, if the societal relevance is weighed as well. A similar remark can be made the influence of social media on perceptions of security. Social media have changed the cues that reach us, and the *ways in which* they reach us (thus changing different aspects of psychological distance) and must be expected to have changed the way we appraise and react to these cues. The 'new' media may substantially accelerate the fulfilment of conditions in which social unrest can develop as well: due to the expected higher emotional impact, the splintering of the public, combined with the development of

'bubbles' of likeminded individuals, and by the opportunities these media present for the spread of 'misinformation'. As observed earlier, social media can further increase *opportunity* in itself: acting as a means for rapid organisation of collective expressions of discontent, including the rapid mobilisation of more participants. It is these same characteristics that may facilitate *micro panics* as proposed in this study, a variation on the moral panics that call for further research.

9.5   Implications for policy and practice

Security policy and the security complex face two different challenges. The first is to adapt to the *crime change:* the rapid change in threats to our security, ranging from new forms of crime in both the analogue and the digital world, to different forms of civil obedience and civil unrest. As noted before, one of the reasons for the *crime drop* may be that over time a thorough understanding was developed of the *opportunity structure* for traditional crime, followed by a successful manipulation of that opportunity structure. It must be assumed that the threats that the *crime change* brought (and brings) are characterised by a different opportunity structure, so that the lessons learned in the previous periods cannot be automatically transposed to the new threats, and that *new lessons* have to be learned. How can this process be speeded up?

The second challenge that the security complex faces is how the perceived relevance and knowledge of *perceptions of security* can be increased*.* As noted above, the focus in security policy often remains on what is considered to be the core of the problem at hand (such as registered crime, a terrorist attack, the risk of catching covid-19)*.* The experience, perceptions, emotions that come with that are less seen, less valued, and their effects in society easily overlooked. This, until public discontent becomes so big, that these cannot be overlooked anymore. In professional education, in handbooks and protocols, perceptions of security are hardly mentioned, and their effects rarely described. For most professionals the relevance of perceptions of security, their effects, and the way they may be influenced therefore remains vague. There have been attempts to improve that. For instance, by developing handbooks or websites that may guide professionals. The Dutch *Dossier Veiligheidsbeleving* ('Dossier Fear of Crime'), a website of the Dutch Centre for Crime Prevention and Security, is such an example (Eysink Smeets & Meier, 2013). Such attempts may be useful, as they provide professionals with some useful dos and don'ts but are not enough to bring about the change in *understanding* that is needed to handle perceptions of security in their complexity.

This study made clear that perceptions of security can only be understood, if they are observed in their specific context, with the myriad of factors that play a role in that specific context. Interventions can only be expected to be effective, if they are aimed at the determining factors in that specific context, executed in a way that fits that context as well. When we see perceptions of security again from the paradigm of complexity, the issue of

mitigating perceptions of security can be seen from the perspective of *wicked problems* (Rittel and Weber, 1973) . Wicked problems can be defined as a

> ….class of social system problems which are ill-formulated, where the [available] information is confusing, where there are many clients and decision makers with conflicting values, and where the ramifications in the whole system are thoroughly confusing. . . [such that] proposed 'solutions' often turn out to be worse than the symptom. (Churchman, 1967, p. B-141, cit. in Xiang (2013, p. 1)*.*

Contemporary societal problems such as meteorological climate change, the 'obesity epidemic' (Michell *et al.*, 2011), growing inequality (Siglitz, 2015), or public (in)security and the fears of crime can all be seen as such a wicked problem, situated in *complex adaptive systems.* According to the discipline of the study of wicked problems, these phenomena can never be taken away completely by deliberate interventions. They can only be mitigated to some extent and for some time, in a certain context, if interventions are developed that – once again - are specific for that context and match the specific interests, possibilities and power-relations of the relevant stakeholders in that context . (Kreuter *et al.*, 2004; Ferlie *et al.*, 2011; Daviter, 2017; Dentoni, Bitzer and Schouten, 2018). A more or less 'applied' version of the research discipline of wicked problems is *systems thinking* (Cabrera, Colosi and Lobdell, 2008; Cundill *et al.*, 2012; Cabrera and Cabrera, 2015; Ilmola and Strelkovsky, 2015)*,* a sub discipline that has yielded interesting results in policy and practice within the police and other public organisations in both the U.K. and the Netherlands (Dietz, 2005; Seddon, 2008). Another, possibly even further applied version is *design thinking,* a method for problem solving, policy design and innovation around complex issues that is becoming increasingly popular in the public sector as well (Johansson-Skolberg, Woodilla and Cetinkaya, 2002; Dorst, 2011; Razzouk and Shute, 2012; Howlett, 2014).

Policy and practice are therefore not so much helped by easily applied blueprints of interventions, but by adopting different ways of looking, appraising, and problem solving. In which professionals are taught to understand perceptions of security and their effects, how they may be influenced and how they *cannot* be influenced. Of course, this may take time. But if we don't do this in a profound way, our security complex will keep being surprised and overwhelmed by rising public discontent and other effects of perceptions of security. As I noted before, *predictive policing* is seen by many in the security complex as a promising security innovation, as it holds the promise of foreseeing where and when specific crimes may occur, thus enabling pro-active action. When the security complex develops a broader understanding of perceptions of security, a far more profound and important form of *predictive policing* will come within reach, a form that is able to foresee the societal dynamics that stem from (collective) perceptions of security. With that, the ability to influence and mitigate, *before* we are surprised and overwhelmed. Wouldn't that bring a perception of utmost security?

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Appendices

Appendix A: 'building blocks'

A1. Literature studies

Reviews were performed of the literature on the topics mentioned below. The findings of these literature studies were laid down in a working paper, some were also presented in papers for (international) scientific conferences, or in other 'intermediate' publications, to provoke feedback and dialogue.

1. The state of the art in fear of crime studies;
2. Complexity Science;
3. Fear of terrorism and its consequences;
4. Fear of cybercrime;
5. Fear of migrants and migration;
6. Effects of fear of crime and related perceptions of insecurity;
7. Interventions to mitigate fear of crime and related perceptions of security (Eysink Smeets, Van Thiel, & Zoutendijk, 2018);
8. Societal effects of risk perceptions, fear and anxieties in epidemics (Eysink Smeets, 2020a).

A2. Empirical studies at the situational level

Four (mixed methods) studies were done on public perceptions of security and/or fear of crime at (hot) spots of specific crimes or nuisances or after a shocking incident in a neighbourhood. The studies were all performed at the request of local government.

9. Study of an urban route considered by users as insecure and fear-provoking: what factors are contributing to those perceptions and how can they be influenced? Amsterdam, the Netherlands. Mixed methods (Eysink Smeets, Van 't Hof, Luten, & Altman, 2017a)
10. Study of an urban route where residents experienced nuisance of school-students going to and from shops in their lunch break. Amsterdam, the Netherlands. Mixed methods (Eysink Smeets, Van 't Hof, *et al.*, 2017b)
11. Study of a hot spot of bicycle theft: (how) do residents perceive the risk of this, what contributes to the high prevalence, (how) can residents help diminishing the crime risk, are they willing to do so? Amsterdam, the Netherland, mixed methods (Eysink Smeets, Van't Hof, *et al.*, 2017)
12. Study of the perceptions of residents of the support of the local council after an intentional gas explosion in their apartment blocks. Qualitative study, Rotterdam, The Netherlands (Schram, Knol and Eysink Smeets, 2015)
13. Study of fear of crime among visitors and residents of adjacent neighbourhoods of an urban park in the city of Rotterdam. Qualitative. (Schram, Eysink Smeets and Van Haalen, 2021)

A3. Empirical studies at neighbourhood level

Two (mixed methods) study were performed of fear of crime and other perceptions of security in neighbourhoods where local government measured a high prevalence of public perceptions of insecurity, a prevalence that was not understood by local civil servants. The studies were performed at the request of local government.

14. Quick scan of the fear of crime and (other) perceptions of security in a residential neighbourhood, Delft, The Netherlands, mixed methods, (Eysink Smeets & Schram, 2015).

15. Perceptions of (in)security in five neighbourhoods of Schiedam. Mixed methods (Schram, Eysink Smeets and Hendriks, 2021)

A4. Empirical studies at city level

Three (mixed methods) studies were performed on trends in fear of crime and their explanations in four Dutch cities: two of these belonged to the top-5 of biggest cities in The Netherlands (Rotterdam the second largest city, Eindhoven nr. 5), one concerned a medium-sized city. Both of these cities have a relatively high prevalence of fear of crime in the population, in 2019 the Dutch Crime and Security monitor the prevalence of fear of crime[37] in Schiedam and Rotterdam was the highest of the 32 largest cities in the Netherlands (CBS, 2020a). The studies in these cities were all performed at the request of local government.

16. How do inhabitants of the city of Eindhoven perceive crime and security in their city? Are interventions necessary? Eindhoven, The Netherlands, mixed methods. (Eysink Smeets & Schram, 2015)
17. Fear of crime in Rotterdam. An analysis of the trends in fear of crime in Rotterdam 2002-2016 and the implications for local security in the near future. Mixed methods, Rotterdam, The Netherlands (Eysink Smeets, 2016b)
18. Fear of crime and perceptions of security in the municipality of Sittard-Geleen. The Netherlands. Mixed methods. (Eysink Smeets & Schram, 2016)

A5. Empirical studies: perceptions of security on specific crimes or threats

Four studies were performed on perceptions of security, their effects and/or on factors that formed those perceptions related to specific types of crime or security threats:

19. Public worries and anxieties on the influx of refugees during the refugee crisis 2015-2016. Mixed methods (Eysink Smeets and Anoek Boot, 2016c, 2016a, 2016b; Eysink Smeets and Boot, 2017b).
20. Community Fire Safety: the citizen's perspective (Eysink Smeets and Ambachtsheer, 2016)
21. Perceptions and experiences of students in higher education on 'slutshaming' and its consequences. Qualitative study in student population of various universities of applied sciences in The Netherlands (Schram, De Jong and Eysink Smeets, 2020).
22. Early warnings of an increase in violent crime in The Netherlands. Exploratory study, national level (Eysink Smeets & Flight, 2020).
23. Trends in New Year's Eve-violence in the Netherlands 2015-2020 and the way Dutch police communicated on that violence: an example of an elite-engineered moral panic? (Eysink Smeets, 2020b).

A6. Empirical studies: (inter)national trends in fear of crime

A cascade of three successive studies was performed on longitudinal trends in fear of crime and related perceptions of security, as measured in national and international surveys in The Netherlands and 134 other countries, covering a period of more than 25 years (1989-2015). In the process a protype was developed of an International fear of Crime Trend Index.

24. First exploration of longitudinal trends of fear of crime and related perceptions of security in the Netherlands and a selection of other western countries (Eysink Smeets, 2015b; Eysink Smeets and Vollaard, 2015).

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[37] Here operationalized as the fear of crime in one's own neighbourhood.

25. Collection and secondary analysis of longitudinal data on fear of crime from 135 countries and construction of an International Fear of crime Trend Index. Quantitative study. (Eysink Smeets, 2017; Eysink Smeets & Foekens, 2018a).
26. Exploratory study of the longitudinal trends in measured fear of crime and related perceptions of security in The Netherlands: what might explain the fear drop that can be observed from 2002 onwards? (Eysink Smeets, Foekens and Natasha Sprado, 2018).

A7. Empirical studies: effectiveness of crime prevention communication

Three studies were performed on different types of crime prevention communication used at the national, local or neighbourhood level. The studies focused on public perceptions of these communication types and on their effects on perceptions of security and security behaviour of the public.

27. Perceptions, attitudes and expectations of segments of the general public that are participating less in *Burgernet* (neighbourhood alert system to improve security), mixed methods study for the Dutch Burgernet-organisation, national level, (Eysink Smeets and Schram, 2016a; Eysink Smeets, Flight and Schram, 2016; Flight and Eysink Smeets, 2016)
28. Effects of public communication to prevent burglary on risk perception, fear of crime and preventive behaviour in The Netherlands ,2013-2016. National study, mixed methods (Eysink Smeets, Jacobs, Foekens, Maessen, & Schram, 2017b)
29. Effects of neighbourhood community safety by means of WhatsApp and other social media, in ten neighbourhoods of Rotterdam. Rotterdam, the Netherlands, mixed methods (Eysink Smeets *et al.*, 2019; Schram, Zoutendijk and Eysink Smeets, 2019)

A8. Empirical studies: effectiveness of local security policy

The study of trends in fear of crime and related perceptions of security in Rotterdam (already described above under nr. 15) comprised an exploration of the influence of local security policy on those trends as well. Furthermore, four studies into the effectiveness and legality of local security policy that were performed for a regional audit commission provided the opportunity as well to investigate the way four Dutch municipalities tried to mitigate fear of crime and related perceptions of security among their population and to what effect. One of these municipalities was a medium-sized Dutch city, in recent years confronted with a relatively high prevalence of crime (Gouda), the other three were smaller, more rural municipalities with a relatively low crime prevalence (except for burglary).

30. Effects, efficiency and legality of local security policy in the municipality of Bodegraven-Reeuwijk, mixed methods study for a regional audit commission, (Eysink Smeets, Flight and Zoutendijk, 2019a)
31. Effects, efficiency and legality of local security policy in the municipality of Gouda, mixed methods study for a regional audit commission, (Eysink Smeets, Flight and Zoutendijk, 2019b)
32. Effects, efficiency and legality of local security policy in the municipality of Waddinxveen, mixed methods study for a regional audit commission, (Eysink Smeets, Flight and Zoutendijk, 2019c)
33. Effects, efficiency and legality of local security policy in the municipality of Zuidplas, mixed methods study for a regional audit commission, (Eysink Smeets, Flight and Zoutendijk, 2019d)

A9. Conceptual studies: on the changing security landscape

A basic premise of this thesis is that in the new millennium public perceptions of security have become progressively influenced by other perceived threats than those before the millennium change. With that, their expectations and perceptions of institutions that are relevant for security policy – such as the police – may change as well. Many of the studies described above already gave support for that premise, but additional studies were performed to explore those changes. This was often done in the form of smaller studies, resulting in articles in peer reviewed journals, a paper for an academic conference or publications for the professional field.

34. On the trends in confidence in the Dutch police and their meaning (Eysink Smeets & Baars, 2016).
35. On the changed relevance and diminished credibility of police statistics for the Dutch general public (Eysink Smeets, 2016a).
36. On crime drop and crime change, fear drop and fear change (Eysink Smeets, 2016b).
37. On the changing security landscape and its implications for police education (Eysink Smeets, 2016d).
38. On community fire safety and behaviour change (Eysink Smeets, Heijman and Postma, 2016).
39. On the way fear of terrorism forms (Eysink Smeets and Boot, 2017a, 2017c).
40. Towards a theory of fear of terrorism and its impact in society (Marnix Eysink Smeets, 2017d; Marnix Eysink Smeets, Boot, & Sikkens, 2017).
41. On the way Dutch local authorities can improve public resilience in the face of terrorist attacks (Van Duin and Eysink Smeets, 2017).
42. Could changing public perceptions of corporate crime bring the risk of a confidence gap in the CJS? (Eysink Smeets and Zoutendijk, 2018a)
43. On the changes in crime and security in the Netherlands and in Dutch national security policy 1986-2016, (Eysink Smeets, 2019).
44. Exploration of possible societal effects of the public fears and anxieties on Covid-19 in the Netherlands during the first phases of the pandemic (Eysink Smeets, 2020a).

A10. 'Flash studies'

Sometimes, incidents in society or for instance a question from the professional field suddenly provided an opportunity for a quick, small study that might shed more light on a question that already had arisen from earlier studies described above. When at that moment adequate research resources were available as well this led to so-called 'flash-studies': small, short explorations of a specific topic by means of a compact analysis of social media traffic around a specific incident, a small survey, a systematic analysis of open sources, etcetera. Findings were shared in a factsheet or working paper, papers at academic conferences, articles in peer-reviewed journals or professional journals and in the general media.

45. Analysis of Dutch social media traffic after the terrorist attacks of December 2015 in Paris (Eysink Smeets, Loeffen and Baars, 2016).
46. Paris Brussels Lockdown and the cat meme: a short analysis of social media traffic after the Brussel's police request for a temporary social media silence after the 2015 terrorist attack (Baars and Eysink Smeets, 2016).
47. Public reactions to the presence of heavily armed police at Amsterdam Central Railway Station in the days after the 2016 Brussels attacks (Eysink Smeets and Anouk Boot, 2016).
48. Measurement of fear of crime and related public perceptions of security (Eysink Smeets and Baars, 2016a).
49. On the changed security landscape and its implications for local security policy in the municipality of Dordrecht (Eysink Smeets, 2017c).

50. Public reactions during the false alert on an incoming ballistic missile in 2018 in Hawaii: an analysis of open sources (Zoutendijk and Eysink Smeets, 2018).
51. On the changed security landscape and its implications for the Dutch insurance industry (Eysink Smeets, 2018a).
52. Analysis of the political programs for the Rotterdam local elections 2018: what viewpoints do these parties have on urban security in Rotterdam and what policy or interventions they consider needed? (Zoutendijk, Van Thiel and Eysink Smeets, 2018).
53. Exploring the relation between the prevalence of homicide and fear of crime at the macro-level (Eysink Smeets and Van Thiel, 2018).
54. Violence against the police: is it rising indeed, as the Dutch police claims? (Eysink Smeets, 2019c)
55. Analysis of a survey on presumed manipulation of police-recorded crime data (Eysink Smeets, 2019b)
56. Quick scan of public perceptions of disorder in an inner city neighbourhood (Eysink Smeets, 2021b)

Appendix B: academic contributions

Books/book chapters

Eysink Smeets, M., & Foekens, P. (2018). The Fear Drop. In M. Lee & G. Mythen (Eds.), *International Handbook on Fear of Crime*. Routledge, Oxon & New York, p. 446-466.

Articles in peer-reviewed journals

Eysink Smeets, M. (2019) Een Veranderend veiligheidslandschap vraagt om bezinning van de politie en haar partners, *Cahiers Politie Studies*, nr. 50,

Eysink Smeets, M., (2018) Waarom het onderzoek naar veiligheidsbeleving een nieuwe impuls nodig, *Justitiële verkenningen,* vol. 44, nr. 6, 8-24

Eysink Smeets, M. (2018) Review of dissertation Smulders (2017) *Twitter use by neighbourhood police officers and the fear of crime.* In: *Tijdschrift voor Criminologie*

Eysink Smeets, M. (2018). "Met mij gaat het goed, met ons gaat het slecht": ook als het om de criminaliteit gaat. Review of the dissertation of R. Spithoven (2017): Keeping Trouble at a Safe Distance, *Tijdschrift Voor Criminologie*.

Eysink Smeets, M. & Boot, A. (2017) Publieke zorgen rond de instroom van vluchtelingen in: *Tijdschrift voor Veiligheid*, Vol. 16, nr. 2/3, p 90-107.

Eysink Smeets, M. (2016) 'Meten is weten' als eroderend adagium? Over de afnemende geloofwaardigheid van politie- en veiligheidscijfers voor het publiek. In: Devroe, E., De Raedt. E. de, & Elffers, H. (eds.) *Cahiers Politiestudies. Meten is Weten*. 2016-4, p73-93

Eysink Smeets, M. en B. Vollaard (2015), Trends in perceptie van criminaliteit, in: *Tijdschrift voor Criminologie*, vol. 57, nr. 2, pp. 229-241

Contributions to academic conferences

Schram, K, J. Zoutendijk & M. Eysink Smeets (2019), *Digital Neighbourhoodwatch*, annual conference of European Society of Criminology 2019, sept., Gent

Eysink Smeets, M. (2019) *Wakker In Een Vreemde Wereld*, in De Essentie van de Politie. Jubileumcongres Cahiers Politie Studies. February, Breda.

Eysink Smeets, M. (2018), *Are fear of crime studies keeping up with the fear of crime?* Doctoral Conference Cardiff University, June 15th, 2018, Cardiff

Eysink Smeets, M., M. van Thiel & J. Zoutendijk (2018), *Can fear of crime be reduced? And how?, annual conference of the European Society of Criminology 2018*, August 29-Sept 1st, Sarajevo

Eysink Smeets, M. & M. van Thiel (2018), *Why fear of crime studies need a new impulse. And what that impulse could be*. 2018 conference of the Dutch Society of Criminology, June 15-16 2018, Leiden

Eysink Smeets, M. & J. Zoutendijk (2018), *'Undermining? Why not look at übermining as well? Are public perceptions on corporate crime shifting, with the risk of a confidence gap?* 2018 conference of the Dutch Society of Criminology, June 15-16 2018, Leiden, The Netherlands

Eysink Smeets, M. (2017), *The Fear Drop*. Annual Conference European Society of Criminology, September 2017, Cardiff, United Kingdom.

Eysink Smeets, M & Foekens, P. (2017), *The Dutch Burglary Epidemic and the paradoxal effects of prevention communication*. Annual Conference European Society of Criminology, September 2017, Cardiff

Eysink Smeets, M. (2017), *Towards a theory on the societal impact of terrorism.* Annual Conference European Society of Criminology, September 2017, Cardiff

Eysink Smeets, M. (2017), *Trends in security perceptions in Rotterdam (The Netherlands) and the need for a new narrative.* Conference on Security in Marginalized Neighbourhoods, April 2017, Budapest.

Eysink Smeets, M. (2016), *The 'security landscape' is changing rapidly. Can police (education) keep up?* CEPOL Conference, October 2016, Budapest, Hungary.

Eysink Smeets, M. (2016), *On crime drop and crime change, fear drop and fear change*. Annual conference of the European Society of Criminology 2016, September, Munster.

Baars, J. & Eysink Smeets, M. (2016), *Brussels Lockdown and the cat meme: a short analysis of social media traffic after the police request for a temporary social media silence*, Stockholm Criminology Symposium, June 2016, Stockholm.

Eysink Smeets, M. & A. Boot (2016), *Worries and fears on the influx of immigrants in the Netherlands*, Stockholm Criminology Symposium, June 2016, Stockholm.

Eysink Smeets, M. & Boot, A. (2016), *Publieke zorgen rond migranten*. Annual conference of the Dutch Society of Criminology, June 2016, Leiden.

Eysink Smeets, M. (2015), *De Preventieparadox*. Annual conference of the Dutch Society of Criminology, June 2015, Leiden.

Vollaard, B & M. Eysink Smeets (2015), *Trends in veiligheidspercepties*. Annual conference of the Dutch Society of Criminology, June 2015, Leiden.

Eysink Smeets, M. (2015), *The Feardrop*. Annual conference of the European Society of Criminology 2015, Porto, Portugal.

Eysink Smeets, M (2015). *Influencing Urban Perceptions of Security* - conference of the European Forum for Urban Security (EFUS), December 3-4, Rotterdam.

Appendix C: contributions to policy and practice

Books/book chapters

Van Duin, M. and Eysink Smeets, M. (eds) (2017) *Veerkrachtig omgaan met aanslagen: een advies voor bestuurders*. Arnhem/Rotterdam: IFV/Hogeschool Inholland.

Eysink Smeets, M. and Boot, A. (2017) 'De klap…en dan?', in Van Duin, M. and Eysink Smeets, M. (eds) *Veerkrachtig omgaan met aanslagen: een advies voor bestuurders*. Arnhem/Rotterdam: IFV/Hogeschool Inholland.

Eysink Smeets, M. and Boot, A. (2017) 'Wat bepaalt de impact?', in Van Duin, M. and Eysink Smeets, M. (eds) *Veerkrachtig omgaan met aanslagen: een advies voor bestuurders*. Arnhem: Instituut Fysieke Veiligheid - Hogeschool Inholland.

Eysink Smeets, M., Boot, A. and Sikkens, E. (2017) 'En wat is de impact ?', in Van Duijn, M. and Eysink Smeets, M. (eds) *Veerkrachtig omgaan met aanslagen: een advies voor bestuurders*. Arnhem/Rotterdam: IFV/Hogeschool Inholland.

Eysink Smeets, M. (2017). Over nieuwe (on)veiigheid en de Stupidity Paradox. In P. Pattynama, J. Van Trijp, R. Brond, & P. Van Lochtem (Eds.), *Na Vandaag. De toekomst van een veilige samenleving* (Pattynama, pp. 141–142). Den Haag: Stichting Innovatie voor Veiligheid.

Eysink Smeets, M., Heijman, M. and Postma, R. (2016) *Behaviour change for community fire safety - Insights and recommendations*. Edited by M. Eysink Smeets, M. Heijman, and R. Postma. Arnhem: Scientific Research Council of the Netherlands Fire Service.

Eysink Smeets, M. and Ambachtsheer, D. (2016) 'Community fire safety: the citizen's perspective', in Eysink Smeets, M., Heijman, M., and Postma, R. (eds) *Behaviour Change for community fire safety - Insights and recommendations*. Arnhem: The Netherlands Fire Service - Scientific Research Council of the Netherlands Fire Service.

Technical reports

Schram, K., Eysink Smeets, M., & Van Haalen, D. (2021). *Veiligheidsbeleving in het Zuiderpark*. Rotterdam: Inholland University of Applied Sciences, Researchgroup Law & Security.

Schram, K., Eysink Smeets, M., & Hendriks, T. (2021). *Veiligheidsbeleving in Schiedam. Een studie in vijf buurten*. Rotterdam: Inholland University of Applied Sciences, Researchgroup Law & Security.

Eysink Smeets, M. (2021) *Overlast in het Kromhoutgebied: de blik van een buitenstaander*, LEV, Amsterdam.

Eysink Smeets, M. (2020) *Mindmaps maatschappelijke doorwerking angst voor corona 4.0*. Rotterdam: Inholland University of Applied Sciences, Researchgroup Law & Security.

Eysink Smeets, M. and Flight, S. (2020) *Verkenning geweld. Early warnings verandering geweldscriminaliteit?* LEV Amsterdam.

Eysink Smeets, M. *et al.* (2019) *Alerte burgers , meer veiligheid? De werking van digitale buurtpreventie in Rotterdam*. Rotterdam: Inholland University of Applied Sciences, Researchgroup Law & Security.

Eysink Smeets, M., Flight, S. and Zoutendijk, J. (2019) *Veiligheidsbeleid. Groene Hart Rekenkamer: gemeente Bodegraven-Reeuwijk*. LEV, Amsterdam.

Eysink Smeets, M., Flight, S. and Zoutendijk, J. (2019) *Veiligheidsbeleid. Groene Hart Rekenkamer: gemeente Gouda*. LEV, Amsterdam.

Eysink Smeets, M., Flight, S. and Zoutendijk, J. (2019) *Veiligheidsbeleid. Groene Hart Rekenkamer: gemeente Waddinxveen*. LEV, Amsterdam.

Eysink Smeets, M., Flight, S. and Zoutendijk, J. (2019) *Veiligheidsbeleid. Groene Hart Rekenkamer: gemeente Zuidplas*. LEV, Amsterdam.

Eysink Smeets, M., Jacobs, M., *et al.* (2017) *Effecten van communicatie bij de aanpak van woninginbraken*. LEV, Amsterdam.

Eysink Smeets, M., Van 't Hof, K., *et al.* (2017) *De beleving van onveiligheid op het Jaagpad. (Hoe) kan het beter?* LEV, Amsterdam.

Eysink Smeets, M., Van't Hof, K., *et al.* (2017) *Aanpak fietsdiefstal in de Tweede Jan van der Heijdenstraat. Waar liggen de kansen?* LEV, Amsterdam.

Eysink Smeets, M., Van 't Hof, K., *et al.* (2017) *Overlast van scholieren op de 'snoeproute' rond de Achillesstraat: analyse en oplossingsrichtingen*. LEV, Amsterdam.

Eysink Smeets, M. (2016) 'Veiligheidsbeleving in Rotterdam'. Gemeente Rotterdam, Rotterdam.

Eysink Smeets, M. and Schram, K. (2016b) *Veiligheidsbeleving in Sittard-Geleen*. LEV, Amsterdam.

Eysink Smeets, M., Flight, S. and Schram, K. (2016) *De Witte Plekken van Burgernet - Compacte Overall-rapportage*. LEV, Amsterdam.

Eysink Smeets, M. and Schram, K. (2016a) *De Witte Plekken van Burgernet - Deelstudie B: onderzoek onder burgers*. LEV, Amsterdam.

Schram, K., Knol, L., & Eysink Smeets, M. (2015). *De klap na de klap? De nasleep en afhandeling van de explosie in de Rotterdamse Moddermanstraat (van 1 februari 2015), bezien door de ogen van bewoners.* Rotterdam: Inholland University of Applied Sciences, Researchgroup Law & Security.

Eysink Smeets, M. and Schram, K. (2015) *Hoe ervaren burgers in Eindhoven hun veiligheid? Is het nodig die te verbeteren en (hoe) kan dat dan?* LEV, Amsterdam.

Eysink Smeets, M. and Schram, K. (2015) *Hoe veilig voelen bewoners van de Reinier de Graafbuurt zich ? Korte verkenning van de veiligheidsbeleving in de Delftse Reinier de Graafbuurt*. LEV,

Amsterdam.

Other contributions

- Articles written in professional media: 15+
- Interviews by professional media: 15+
- Presentations, speeches, workshops: 50+
- Expert meetings, brainstorms, consultancy: 50+

Appendix D: contributions to public debate

- Interviews on radio (13) and television (7)
- Interviews in printed and digital news media (60+).
- Columns in Police and Security column of Dutch broadsheet (8).
- Contributions via Linked-In and Twitter (numerous).

Appendix D: overview of content (extended version)

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