

Part IV:  
Consequences of Victimisation



# 11. Victimization, Fear of Crime and Life Satisfaction

*Michael Hanslmaier, Stefanie Kemme, Dirk Baier*

## 11.1 Introduction

Becoming a victim of crime has not only immediate consequences such as loss of property, physical harm and psychological distress, but is also likely to have longer-lasting consequences. Victimization experience may also result in an elevated level of fear of crime, alter the person's defensive behaviour and lower life satisfaction.

Studies show that victimization is related to an elevated level of fear of crime (cf. Bilsky/Wetzels 1997, Brunton-Smith/Sturgis 2011, Skogan 1987). This relationship merits further investigation, as there are other studies that find no relationship or only a weak relationship between victimization and fear of crime (Naplava 2008, Tseloni/Zarafonitou 2008, Wittebrood 2002). The weak relationship found in empirical works may be caused by memory decay, avoiding behaviour, a rationalisation of the victimization experience (Tseloni/Zarafonitou 2008, p. 388) – or simply by the fact that the studies relate different indicators of victimization to different facets of fear of crime (Wittebrood 2002). This last argument is in line with findings that show that the type of crime seems to be important regarding the impact on fear of crime measures (Quann/Hung 2002, Skogan 1987, p. 151, Tseloni/Zarafonitou 2008). The connection between victimization and fear of crime also appears to be stronger when specific victimization experience is related to specific fear of crime (Naplava 2008, Rountree 1998, Skogan 1987). In addition, victimization experience also seems to impact different facets of fear to differing degrees (cf. Lüdemann 2006, Gerber et al. 2010).

This aspect underscores the fact that the meaning and especially the measurement of fear of crime is not uniform. In a number of studies, fear of crime is measured with the so-called standard indicator (Hale 1996).<sup>1</sup>

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1 The standard indicators of fear commonly use one item, targeting on fear at night in an area close to where the respondent live, for example Hale (1996, p. 85): “How

This measure has not been without criticism (cf. Bilsky and Wetzels 1997, Ferraro 1995, p. 22). It is necessary to distinguish between different meanings of fear. In general, fear comprises cognitive, affective and behavioural facets. Furthermore, fear of crime may also refer to concern about crime as a serious problem for a community or society (Skogan 1993). Disentangling the relationship between victimisation and fear of crime, therefore, requires elaborate measures of fear of crime.

However, looking at the consequences of victimisation someone should not stop at assessing victims' level of fear. Taking a broader perspective makes it possible to examine what becoming a victim means for everyday life. One way to do this is to analyse people's life satisfaction.<sup>2</sup> Studies have shown that becoming a victim lowers satisfaction with life in a significant way (Cohen 2008, Michalos/Zumbo 2000, Powdthavee 2005). However, crime and crime-related issues are a relatively unexplored field within life satisfaction research (Powdthavee 2005, p. 532). Dealing with life satisfaction also allows to assess the importance of victimisation for peoples' life in general and to compare it with other domains of life (e.g. work, close social relations, and income).

This paper aims to assess the impact of victimisation on fear of crime and satisfaction with life. The data base consists of a three wave nationwide representative study on crime and crime-related issues conducted in Germany in the years 2004, 2006 and 2010.

## 11.2 Theoretical background

### 11.2.1 Victimisation and fear of crime

Over the last four decades there has been much empirical research and scientific debate on fear of crime (Brunton-Smith/Sturgis 2011, p. 332,

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safe do you feel being out alone in your neighbourhood after dark" or "is there any place around here where you feel unsafe walking at night?"

- 2 Throughout this paper, life satisfaction and satisfaction with life are treated as synonyms. The psychological term 'subjective well-being' is used to denote "an individual's evaluation of the extent to which he or she experiences positive and negative affect, happiness, or satisfaction with life" (Frey 2008, p. 3). The citation of empirical studies follows their terminology.

Gabriel/Greve 2003, p. 600). This section briefly reviews the findings on the relationship between victimisation experience and fear of crime.

Although there are many empirical works on fear of crime, there is no consensus on the definition of fear of crime. Throughout the empirical works, fear of crime is defined and measured in a variety of different ways. This not only makes it hard to assess the level of fear in a given population, but also leads to different findings regarding the relationship between victimisation and fear (Ferraro 1995: 21-22). One finds a surprisingly large number of works that use the ‘standard indicator’ to capture fear of crime, a fact that results from the availability of the indicator in large-scale social surveys.<sup>3</sup> Such indicators, however, focus only on specific crime situations and do not distinguish between fear and perceived risk of crime (Ferraro 1995, p. 22).

There are also authors who treat fear of crime as a multidimensional concept. Skogan (1993, p. 131) separates four different understandings of fear of crime that can be found in empirical research: concern about crime, risk of victimisation, threat of crime, and fear as behaviour. These dimensions of fear of crime have parallel concepts from other authors who distinguish cognitive, affective and behavioural components of fear (Ferraro 1995, Gabriel/Greve 2003). The present paper acknowledges the need to differentiate the facets of fear of crime and conceptualises four different measures (Franklin et al. 2008, Gabriel/Greve 2003, Gerber et al. 2010):

- Concern about crime “focuses on people’s assessments of the extent to which crime is a serious problem for their community or society” (Skogan 1993, p. 132).
- The cognitive component refers to the subjective assessment of the likelihood of becoming a victim (victimisation risk).
- The affective component refers to the emotions/worries of being victimised.
- The behavioural dimension captures physical reactions and aims at avoidance behaviour.

Whereas concern about crime refers to a macro level, the other three facets are clearly related to the personal level.

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3 For example the National Crime Survey (NCS), the General Social Survey (GSS), the European Social Survey (ESS) and the International Crime Victim Survey contain fear indicators of this kind (Ferraro 1995, p. 22, Moore 2006, p. 116, Quann/Hung 2002, p. 312).

Based on data from more than 5,000 respondents from Seattle, Rountree and Land (1996) analyse the relationship between burglary victimisation and two different indicators of fear of crime in a multilevel setting. They find a positive effect in relation to experience with household burglary both for burglary-specific fear and for the evaluation of the respondent's neighbourhood as unsafe.

Quann and Hung (2002) also find a significant impact of personal and household victimisation experience on fear of crime. The estimates are based on cross-national data from the International Crime Victim Survey (ICVS) with 39,517 respondents (year 2000 survey wave). The authors note, however, that the impact on fear of crime is not as strong as expected. Household victimisation seems to have a stronger impact on fear than personal victimisation.

A study from Athens (Tseloni/Zarafonitou 2008) with 431 respondents shows that walking alone in one's municipality and subjective victimisation risk are significantly affected by previous direct victimisation, but there is no impact on feeling safe at home at night.

Wittebrood (2002) finds in a cross-national multilevel analysis with data from the ICVS 2000 (35,000 respondents) that having been a victim of burglary or violence decreases the likelihood of feeling safe when being at home alone after dark and of feeling safe when walking in the dark in the neighbourhood. Whereas the impact of a burglary on feeling safe at home is stronger than the impact of a violent crime event, the type of victimisation does not matter when it comes to feeling safe on the streets.

The work by Rountree (1998) with Seattle data (4,638 respondents) focuses on the relationship between offence-specific victimisation experience within the last two years and offence-specific indicators of fear of crime. The results show that personal victimisation, which captures assault within one's own neighbourhood, increases fear of violence and (indirectly through perceived incivilities) fear of burglary. By contrast, burglary victimisation is only related to fear of burglary victimisation.

Shifting the focus to studies from Germany more or less confirms these findings. Naplava (2008) shows that having been a victim within the last two years significantly raises the level of fear of becoming a victim within the respondent's living area. The sample consisted of 64,000 inhabitants aged 14 years and older from the German state of North Rhine-Westphalia.

A study from Hamburg (Lüdemann 2006) finds a positive impact of the number of direct victimisation experiences on perceived likelihood of vic-

timisation and avoiding behaviour. Feeling safe in the neighbourhood during the day is negatively related to the number of direct victimisation experiences, whereas feeling safe in the neighbourhood during darkness is not related to personal victimisation. Based on data from a representative German survey, Bilsky et al. (1995) find a correlation between violent victimisation and personal fear of crime.<sup>4</sup> Gerber et al. (2010) conclude in their review of the literature on insecurities about crime in Germany, Austria and Switzerland that direct and indirect victimisation experience affects the cognitive dimension of fear of crime to a stronger degree than it affects the affective component.

Another important aspect concerning the victimisation-fear relationship is time. An Italian study (Russo/Roccatò 2010) shows in a two-wave longitudinal survey that victimisation experience within 12 months before  $T_1$  does not affect fear of crime at  $T_2$ . By contrast, victimisation during the year between the two survey waves increases fear of crime. The same holds for people who have experienced multiple victimisation (i.e. victimisation at  $T_1$  and  $T_2$ ). Gale and Coupe (2005) analyse a sample of 149 victims of street robbery interviewed within four weeks of the incident ( $T_1$ ) and again 9 months after the incident ( $T_2$ ). Whereas the level of fear was heightened at  $T_1$ , at  $T_2$  the level of fear during day was back down to the level before the incident. Fear at night also decreased but still remained above the initial value.

The empirical evidence presented shows that there is a connection between victimisation and fear of crime, hence the following general assumption is made:

$H_{F1}$ : Victims report higher levels of fear than non-victims.

However, research has shown that the relationship depends also on the type of victimisation event and the dimension of fear of crime (e.g. cognitive, affective, and conative). Not every dimension is affected in the same way. Furthermore, there seems to be a stronger connection between offence-specific victimisation and specific fear of crime.

$H_{F2}$ : Victimisation experience impacts the dimensions of fear of crime to differing degrees.

$H_{F3}$ : The relationship will be stronger between crime-specific fear and crime-specific victimisation.

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4 The indicator of personal fear comprises affective and cognitive components based on an expectation\*value approach (Bilsky et al. 1995, p. 96).

In addition, there is some empirical evidence that the impact of victimisation declines over time. However, it is unclear whether it comes to a complete recovery or how long this takes. Once again, therefore, a more general hypothesis is derived.

H<sub>F4</sub>: The impact of a victimisation event declines over time.

### 11.2.2 *Victimisation, fear of crime and life satisfaction*

Research on life satisfaction is a growing field of research among the social sciences. It aims “to isolate what conditions affect individual and social well-being, and to what extent” (Frey, 2008, p. 4). Subjective well-being is not only a personal issue, but is also strongly affected by the living conditions and the society that shapes them (Frey/Stutzer 2002, p. vii).

Not surprisingly, personality has been found to affect subjective well-being; traits like (unrealistic) optimism and extraversion contribute to subjective well-being, as do self-esteem and genetic predisposition (Frey/Stutzer 2002, p. 50-52). Demographic characteristics, economic situation and social relations also matter: Married people are on average happier, for example, and the unemployed report far lower satisfaction with life than employed people – controlling for loss of income (cf. Argyle 1999, Clark/Oswald 1996, Frey/Stutzer 2002, Gerlach/Stephan 1996, Oswald 1997, Winkelmann/Winkelmann 1998).

As other studies show, crime is also related to life satisfaction. Compared to the areas mentioned above there are only a few studies that deal with the consequences of crime in terms of subjective well-being (Michalos/Zumbo 2000, p. 246, Møller 2005, pp. 269-270, Powdthavee 2005, p. 532).

Michalos and Zumbo (2000) analyse the impact of fear of crime and victimisation on different satisfaction measures. Their sample consists of 737 respondents from Prince George (Canada). It turns out in bivariate analysis that victims report lower scores of satisfaction with life as a whole, of satisfaction with the overall quality of life, and of happiness. However the differences are not that large. Regarding fear of crime, there is no (bivariate) relationship between the ‘standard indicator’, an index of defensive behaviour and the indicators of subjective well-being. However, an index of crime-related worries is negatively related to quality of life and life satisfaction. Additionally, satisfaction with personal safety and the



family's safety in the neighbourhood is positively related to all three indicators of global satisfaction.

The study from Cohen (2008) analyses the effect of victimisation experience and neighbourhood safety on reported happiness based on seven survey waves from the United States General Social Survey (GSS) with more than 14,000 respondents. Individuals who rate the neighbourhood they live in as unsafe report a significantly lower happiness score. This effect disappears, however, when Cohen (2008) controls for burglary and robbery victimisation.<sup>5</sup> Burglary victimisation itself significantly lowers happiness.

By contrast, Moore (2006) reports a significant impact of fear of crime, but no impact of victimisation experience on happiness using data from the European Social Survey (ESS) with 25,915 respondents from 22 countries. He uses a standard indicator of fear of crime (walking alone after dark in the respondent's area). Victimisation status indicates if the respondent or a household member has been a victim of assault or burglary within the last five years.

A paper based on the European Community Household Panel reports a significant negative impact of the perception that crime is a problem in the respondent's area on the measure of subjective well-being in Germany and other European states (Pedersen/Schmidt 2009).

A study from South Africa (Powdthavee 2005) shows that victimisation experience at household level significantly lowers household satisfaction. The impact of victimisation is lower in areas with a high crime rate, which itself has a negative impact on life satisfaction. The reduction of the life satisfaction gap between victims and non-victims is explained by a reduced stigmatisation effect in areas where there are more victims (Powdthavee 2005, p. 538). A similar mechanism is discovered by Clark (2003): The well-being gap between employed and unemployed is smaller in areas with higher unemployment.

Studies that reveal the psychological consequences of fear of crime and victimisation corroborate the relationship between fear of crime, victimisation and life satisfaction. Fear of crime is associated with more distress (Ross 1993, p. 170). Studies with elderly people show that fear of crime

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5 The initially large number of respondents decreases notably, however, as more variables are included in the multivariate models. It drops from 8,444 to 2,260 when victim status is included in the models. This may also account for the effect of perceived safety being rendered insignificant.

leads to less neighbourhood satisfaction and lower overall morale (Ward et al. 1986, Yin 1982). Exploring the psychological consequences of victimisation, Sorenson and Golding (1990) find that victims of crime are more likely to report increased suicidality and depression. Individuals who have been mugged or sexually assaulted report higher levels of depression. Suicidality is affected by victimisation in general and especially by having been mugged. Britt (2001) links victimisation experience to perceived health and physical well-being and shows that victimisation negatively affects health. The effects are contingent on type of victimisation (property crime vs. violent crime) and age. Norris and Kaniasty (1994) analyse the impact of victimisation on psychological symptoms and find that victims of crime are more distressed, show higher levels of depression, anxiety, somatisation, hostility, and fear. Based on longitudinal data they show that these symptoms declined over time, but this decline diminished, and even after 15 months victims still suffered more distress than non-victims.

The findings on the diminishing impact of victimisation are related to research that deals with processes of adaptation regarding subjective well-being. The extra happiness induced by new goods or an income shift wears off over time, as people adapt to the new situation (Frey/Stutzer 2002, pp. 78ff.). This is also true for events that cause a loss of subjective well-being. For example the death of a close relative or friend is associated with an increase of psychological distress, but the impact declines over time (Oswald/Powdthavee 2008). Adaptation processes are also found for people who became disabled. However, they did not recover entirely over the observation period (Oswald/Powdthavee 2008a). Based on this evidence, one would expect a declining impact of victimisation experience over time, as does Møller (2005, p. 271).<sup>6</sup> There might not be a total recovery of subjective well-being, however.

Based on the literature presented above, we expect a negative impact of fear of crime and victimisation experience on life satisfaction.

H<sub>L1</sub>: Victims of crime report a lower level of life satisfaction than non-victims.

H<sub>L2</sub>: Fear of crime decreases life satisfaction.

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6 In her own analyses, Møller (2005, pp. 287-288) gives up the distinction between earlier and later victimisation, as it appears to be spurious. However, her analyses do not control for socio-demographic background (or at least it is not described), which is important in disentangling the different impacts of victimisation and social background.

In addition the assumption of a time dependent impact of victimization on life satisfaction is derived.

H<sub>L3</sub>: The impact of a victimisation experience on life satisfaction will be higher for recent victimisation than for earlier victimisation.

### 11.3 *Empirical analysis*

#### 11.3.1 *Data base and operationalisation*

##### The sample

The empirical analyses are based on three waves of a nationwide representative survey conducted by the Criminological Research Institute of Lower Saxony in the years 2004, 2006 and 2010.<sup>7</sup> The target population were all German-speaking persons of 16 years and older and residing in private households. The paper-and-pencil questionnaire was sent by postal mail at the beginning of January in each year. The sampling was based on an access panel run by the German market research institute Gesellschaft für Konsumforschung (GfK). The response rate was fairly high (64 to 86 per cent); this is a result of using an access panel. The 2004 and 2006 survey waves were administered by another major German market research institute, TNS Infratest. An access panel is a pool of households who are willing to participate in surveys and about whom basic socio-demographic variables are known. Participants normally receive monetary compensation for participating. Access panels receive a positive assessment in the literature (Kaase 1999, p. 42). A crucial feature of such panels is heterogeneity to ensure a representative sample. As the present analyses are about unravelling relationships, however, representativeness is a secondary concern (Diekmann 2003, pp. 368-369). It is therefore not necessary to be concerned about differences between survey waves with regard to demographic variables, and particularly employment status (see Table 11.1). Relationships should also be manifest if the sample were not to be representative. In addition, multivariate methods allow the demographic background to be controlled for.

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7 For a more detailed description of the sample see Windzio et al. (2007) and Baier et al. (2011).

Table 11.1 Sample characteristics

|   | 2004          | 2006          | 2010          | Total sample |
|---|---------------|---------------|---------------|--------------|
| sample technique                        | Access panel  | Access panel  | Access panel  |              |
| survey period                           | 8.1.-6.2.2004 | 5.1.-2.2.2006 | 7.1.-1.2.2010 |              |
| response rate                           | 64%           | 70%           | 86%           |              |
| valid Answers                           | 2,017         | 1,110         | 3,245         | 6,372        |
| <i>demographics</i>                     |               |               |               |              |
| age in years (mean)                     | 48.3          | 47.6          | 51.3          | 49.7         |
| female                                  | 54.5%         | 53.1%         | 51.1%         | 52.5%        |
| low education                           | 34.8%         | 27.2%         | 26.7%         | 29.3%        |
| medium education                        | 33.5%         | 32.0%         | 33.7%         | 33.3%        |
| high education                          | 31.7%         | 40.8%         | 39.6%         | 37.3%        |
| student                                 | 7.5%          | 7.0%          | 5.4%          | 6.3%         |
| retired                                 | 24.0%         | 22.2%         | 32.6%         | 28.1%        |
| unemployed                              | 6.3%          | 3.9%          | 3.5%          | 4.5%         |
| employed                                | 49.3%         | 57.9%         | 48.9%         | 50.4%        |
| other                                   | 12.9%         | 10.0%         | 9.6%          | 10.7%        |
| married                                 | 60.2%         | 57.1%         | 60.0%         | 59.6%        |
| unmarried with partner*                 | 7.1%          | 7.7%          | 6.4%          | 6.8%         |
| unmarried without partner               | 16.3%         | 19.5%         | 20.4%         | 19.0%        |
| divorced/separated/widowed with partner | 3.1%          | 3.2%          | 1.8%          | 2.5%         |
| divorced/separated/widowed w/o partner  | 13.3%         | 12.5%         | 11.4%         | 12.2%        |

\* With partner means cohabiting with one's partner.

## Dependent variables

Fear of crime was captured in an extensive manner to measure all four dimensions separately. To assess the concern about crime, participants were asked to estimate the crime trends within the last ten years before the survey for the following crimes: Crime in total, burglary, theft, and assault. They stated on a seven-point scale if in their opinion the number of crimes in general and for a specific set of offences had increased, stayed the same or decreased over the last 10 years. The conative dimension of fear (avoidance behaviour) was captured with eight items on the frequency of behaviour regarding crime, e.g. "I avoid certain parks, streets or public places". Worries about crime and subjective victimisation risk related to six different offences, so the data include the offence-specific cognitive

fear (likelihood of victimisation within the next twelve months) and affective fear (frequency of worrying).<sup>8</sup>

Respondents were also asked to report their overall satisfaction with life (“How satisfied are you nowadays all in all with your life?”) on a seven point scale ranging from (1) very unsatisfied to (7) very satisfied. The distribution is skewed to the left, as in most satisfaction with life studies (Frey/Stutzer 2002). On average, people report a score of 4.70 (6,279 respondents, SD=1.52).

This self-reported measure of life-satisfaction, as captured in large scale social surveys, “has turned out to be the best indicator of happiness. Extensive research has shown that people are capable of consistently evaluating their own state of well-being” (Frey/Stutzer 2002, p. 26). Although satisfaction may comprise several distinct domains, evidence from psychological studies shows that most aspects of subjective well-being can be reflected by a single measure (Frey/Stutzer 2002, p. 28, Kahneman 1999). Measuring subjective well-being in this way is also reliable and research has shown that reported subjective well-being has temporal stability and is sensitive to changing circumstances (Frey/Stutzer 2002, Kahneman/Krueger 2006).

### Victimisation status

Participants were asked in each survey wave if they had ever been victims of theft, assault or burglary. Individuals who had been a victim stated in the next question the year of the last victimisation experience by offence. The questions described the offences in detail to separate the offences from each other.<sup>9</sup> In total 24.4 percent were victims of theft, 8.7 percent

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8 See Table 11.2 of this paper for the wording of the question and all items.

9 The question for theft was: “Someone has stolen objects, money or other means of payment or other important documents that belonged to you or your household, without threatening you with violence or breaking into your home.” Assault was captured by: “Someone has intentionally hit you, beaten you, pushed you or choked you or hurt you with a firearm, a knife, a stick, teargas, a chain or a similar object, without taking anything from you.” Burglary: “Someone has entered or tried to enter your apartment without your permission, e.g. with a jimmy, a false key or through the window, and has stolen something or tried to steal (excludes breaking into basement rooms, garages, garden sheds, summerhouses, business and office premises or cars).”

were victims of assault and 8.8 percent were victims of burglary (captured in the 2004 and 2006 survey waves only).

## Independent variables

Victimisation experience is not the only factor that drives fear of crime. The level of fear experienced by people who have not been victimised is explained using the concept of vulnerability (Naplava 2008). Seen from the vulnerability perspective, fear stems from three factors: increased exposure to victimisation risk, the perception of having low resources of protection and self-defence (loss of control) and anticipation of the possible consequences of victimisation as severe (Franklin et al. 2008, Hale 1996, Killias 1990, Pantazis 2000). Empirical work has confirmed the vulnerability model in general: People who perceive themselves to be physically vulnerable (e.g. senior citizens and women) or socially vulnerable (e.g. people who are poor or have lower education) report higher levels of fear (Franklin et al. 2008, Hale 1996, Kreuter 2002, Pantazis 2000, Ward et al. 1986).

Research has also revealed the impact of socio-demographic characteristics on life satisfaction. Age, sex, and educational and economic background were therefore additionally captured (see Table 11.1 for descriptives). Respondents were divided into three groups based on their school education. Individuals with no school-leaving qualification or only up to nine years of school education are classified as low education level; a medium education level is defined as a school-leaving qualification after ten years of school education; and the high education level group consists of respondents who graduated after at least twelve years of schooling. Financial situation was assessed by computing equivalent monthly income following the OECD definition (5,615 respondents, mean = € 1442.97, SD = 1134.36). Respondents were also sorted into five occupational status groups and five family status groups. In addition, there is a dummy variable indicating whether a respondent comes from the western part of Germany including Berlin or from the eastern part of the country. This distinction would seem to be necessary considering the different histories. 82.1 percent of respondents live in western Germany and 17.9 percent in eastern Germany.

11.3.2 *Victimisation, fear of crime and life satisfaction – bivariate and exploratory analyses*

Victimisation and fear of crime – exploring different dimensions

The first step of the analysis has a more explorative character and relates offence-specific victimisation experience to different dimensions of fear of crime. The items cover the four dimensions of fear of crime (perception of crime trends, and affective, cognitive and conative fear) and distinguish between specific offences (Table 11.2). The analysis starts by distinguishing between victims within the last two years and non-victims within the last two years. This reference period is preliminary, as a closer look at the time dependency of the impact of a victimisation experience will be taken later.

Significant correlations exist between offence-specific victimisation and offence-specific perception of crime trends; they are rather low, but in the postulated direction. This supports the assumption of a specific relationship between victimisation and fear.

Victimisation experience has a small negative impact on the items of conative fear. This finding is rather unexpected. Perhaps people who show a higher degree of avoidance behaviour are victimised to a lesser extent (reverse causal direction), leading to the unexpected direction of the relationship.

The correlations of the affective and the cognitive component with the victimisation status are somewhat higher compared to the two other dimensions of fear and also show a tendency towards a specific relationship: Victims of burglary show the highest correlation with affective and cognitive fear of burglary, victims of theft with fear of theft, and victims of assault are most afraid of assault.

Altogether, the correlations between victimisation experience and the single item indicators are rather small. The biggest correlations are between victimisation with theft and assault and the crime specific affective and cognitive fear items. Furthermore, only some of the correlations are statistically significant at the  $\alpha = 5\%$  level.

In order to test the tendency towards a specific relationship between victimisation and fear, i.e. whether victims of a specific offence are more afraid of that offence, correlation coefficients between victimisation experience and the offence-specific fear item are compared. Table 11.3 shows if the correlations between victimisation and two fear items diverge

Table 11.2 Pearson correlation between victimisation experience and dimensions of fear

|  | Victim within the last two years of... |              |               |
|--|--|--------------|---------------|
|  | Theft                                  | Burglary     | Assault       |
| <b>Perception of crime trends:</b> "Different types of crimes are listed in the following. Please state if such crime in Germany, in your opinion, has decreased, stayed the same or increased over the last ten years; that is, between 1999 and 2009." The scale ranged from (1) has become much rarer to (7) has become much more frequent. |  |              |               |
| Crimes in total  | -0.011                                 | 0.003        | 0.021         |
| Burglary   | -0.017                                 | <b>0.041</b> | -0.022        |
| Theft in total   | 0.008                                  | 0.015        | 0.002         |
| Assault  | 0.001                                  | 0.008        | <b>0.050</b>  |
| <b>Conative fear/avoidance behaviour:</b> "To protect themselves from crime in everyday life, people often take certain precautions. Please state how often you take the precautions named." The scale included the answer categories never, rarely, sometimes, often and always.  |  |              |               |
| I leave the house after dark only if necessary.  | <b>-0.029</b>                          | 0.000        | -0.011        |
| I avoid certain streets, places or parks.  | -0.019                                 | -0.008       | -0.014        |
| I avoid strangers I encounter during darkness if possible.   | -0.019                                 | -0.012       | -0.004        |
| I avoid using public transport at night.   | -0.012                                 | -0.022       | -0.018        |
| I avoid carrying a lot of money with me.   | 0.001                                  | 0.007        | <b>-0.038</b> |
| I take care that my home does not look unoccupied during my absence.   | <b>-0.031</b>                          | 0.010        | <b>-0.048</b> |
| I carry irritant gas, a knife or another weapon with me for self-defence.  | 0.024                                  | -0.015       | 0.079         |
| I additionally secure my home when absent, for example by applying an extra bolt or turning on an alarm system.  | 0.004                                  | 0.014        | 0.007         |
| <b>Affective fear:</b> "If you think about yourself: how often do you have the following worries? I'm afraid that ..." The scale included the answer categories never, rarely, sometimes, often and always.  |  |              |               |
| ... my home may be broken into.  | <b>0.041</b>                           | <b>0.073</b> | 0.006         |
| ... I will have something stolen from me in some other way.  | <b>0.110</b>                           | <b>0.062</b> | <b>0.036</b>  |
| ... I will be hit or hurt.   | <b>0.034</b>                           | 0.029        | <b>0.099</b>  |
| ... I will be robbed.  | 0.013                                  | 0.018        | <b>0.050</b>  |
| ... I will be sexually abused, molested or raped.  | -0.010                                 | 0.014        | 0.022         |
| ... I may be killed in an act of violence.   | 0.014                                  | 0.023        | <b>0.040</b>  |
| <b>Cognitive fear:</b> "How likely is it, in your opinion, that these things might happen to you personally in the next twelve months?" The scale included the answer categories very unlikely, unlikely, less likely, likely and very likely.   |  |              |               |
| ... my home may be broken into.  | <b>0.045</b>                           | <b>0.065</b> | 0.005         |
| ... I will have something stolen from me in some other way.  | <b>0.122</b>                           | <b>0.050</b> | <b>0.040</b>  |
| ... I will be hit or hurt.   | <b>0.040</b>                           | 0.016        | <b>0.126</b>  |
| ... I will be robbed.  | 0.016                                  | 0.018        | 0.019         |
| ... I will be sexually abused, molested or raped.  | -0.010                                 | 0.015        | 0.015         |
| ... I may be killed in an act of violence.   | -0.007                                 | 0.015        | 0.019         |

Correlations with p < 0.05 bold

significantly. This is done for every victimisation type separately for all significant correlations from Table 11.2. For example, the correlation between victimisation with theft and affective fear of theft is significantly stronger than the correlation between victimisation with theft and affective fear of burglary.

In sum, the tests on the heterogeneity of the correlation coefficients show that victims of theft report a significantly stronger correlation with affective and cognitive fear of theft than with fear of other offence types. Experience of assault is significantly more strongly correlated with fear of



assault than with fear of other offence types, whereas there is no evidence that burglary victimisation increases fear of burglary more than fear of other forms of theft.

*Table 11.3 Testing for heterogeneity in correlation coefficients*

|                           | Theft     | Burglary | Assault   |
|---------------------------|-----------|----------|-----------|
| Affective fear            |           |          |           |
| Burglary vs. theft        | -6.098*** | 0.711    |           |
| Burglary vs. assault      | 0.506     |          |           |
| Theft vs. assault         | 6.383***  |          | -5.262*** |
| Theft vs. robbery         |           |          | -1.195    |
| Assault vs. robbery       |           |          | 5.828***  |
| Violent death vs. robbery |           |          | -0.960    |
| Violent death vs. assault |           |          | -5.228*** |
| Violent death vs. theft   |           |          | 0.264     |
| Cognitive fear            |           |          |           |
| Burglary vs. theft        | -7.697*** | 1.061    |           |
| Burglary vs. assault      | 0.397     |          |           |
| Theft vs. assault         | 7.607***  |          | -8.021*** |

Test on significant differences between dependent correlation coefficients using the STATA command *corcor* (Goldstein 1996). Test statistic (Z) and significance for two-tailed test reported: \*\*\*  $p < .001$

Another finding from the previous literature is the claim that victimisation experience more severely impacts the cognitive than the affective dimension of fear. Comparing the correlation coefficients of the cognitive and the affective dimension with victimisation experience shows no significant differences, however – with one exception: The correlation between cognitive fear of assault and having been victim of an assault is higher than the correlation with the affective item ( $z = -2,357$ ,  $p=0.018$ ).

To sum up, there is not much evidence that victimisation influences the cognitive dimension of fear more than the affective dimension. However, these two dimensions seem to depend more on victimisation than do perception of crime trends and conative fear. Regarding the offence-specific relationship between victimisation and fear of crime, the results indicate that there is a specific relationship.

It can also be seen that the relationship between victimisation experience and fear of crime is not limited to the type of offence a respondent

experienced. Victims of violent crimes also report fear of property victimisation and vice versa. This leads to the question as to whether victimisation influences fear of crime in a broader manner. In the next step, therefore, the different items of fear are combined in indicators that reflect the four dimensions of fear: concern about crime, affective fear, cognitive fear and avoiding behaviour.

### Factor analyses of fear of crime

The eigenvalues from the factor analysis of the items for conative fear of crime suggest a two-factor solution. The first five items load on the first factor, the sixth item loads on both and the last two items load on the second factor. This holds for all three survey waves, implying temporal stability. Based on these results, a scale is developed with the first five items that load on the first factor. Item six shows low loadings ( $< 0.5$ ) on the first factor and is therefore not part of the scale. Due to the low eigenvalue and correlations, no scale is computed based on the second factor. The Cronbach's  $\alpha$  values for the conative fear scale are satisfactory (2004: 0.79, 2006: 0.74, 2010: 0.79). The scale is derived by averaging the answers over the five items (6,364 respondents, mean = 2.94, SD = 0.92, ).

Separate factor analyses for the six cognitive and six affective items for fear indicate a clear solution with one factor in each of the analysis. The Cronbach's  $\alpha$  values for the affective scale are higher compared to the conative scale (2004: 0.87, 2006: 0.87; 2010: 0.86; N = 6,361 respondents, mean = 2.12, SD = 0.70). The same holds for the cognitive scale (2004: 0.89, 2006: 0.89, 2010: 0.89; 6,338 respondents, mean = 2.10, SD = 0.72).

Perception of past crime trends, as an indicator of crime as a concern, is measured further on via one single item that captures the perception of past trends for general crime. The mean value of 5.53 suggests that, on average, respondents think the number of crimes in total has increased over the last 10 years (6,292 respondents, SD = 1.07).

The correlations between the four dimensions of fear range from low to middle (Table 11.4), whereas it can be seen that the cognitive and the affective dimensions are particularly strongly related to each other ( $r = 0.665$ ). The perception of crime trends is correlated to the other dimensions only by about 0.2, suggesting that concern about crime as a social problem may not necessarily affect more personal dimensions of fear.

*Table 11.4 Pearson correlations between the different indicators of fear*

|                            | Conative Fear | Cognitive Fear | Affective Fear |
|----------------------------|---------------|----------------|----------------|
| Cognitive fear             | 0.352***      |                |                |
| Affective fear             | 0.438***      | 0.665***       |                |
| Perception of crime trends | 0.238***      | 0.199***       | 0.215***       |

\*\*\*  $p < 0.001$ 

Relating the scales for affective, cognitive and conative fear to the three different victimisation variables shows that victimisation experience decreases conative fear of crime (T-tests, Table 11.5). This means that victims of theft, assault and burglary report less avoidance behaviour. The differences are, however, not significant at the conventional level ( $\alpha = 5\%$ ). By contrast, the cognitive and affective indicators of fear – both in logs to improve distribution properties – are increased by a victimisation experience. The mean differences are significant, with the exception of cognitive fear in burglary victims. This may be partly due to the small number of burglary victims.

*Table 11.5 Mean comparison between victims within the last two years by offence*

|          |                                    | Cognitive fear (log) |       | Conative fear |       | Affective fear (log) |       |
|----------|------------------------------------|----------------------|-------|---------------|-------|----------------------|-------|
|          |                                    | Mean                 | N     | Mean          | N     | Mean                 | N     |
| Theft    | Not a victim within last two years | 0.675                | 5,909 | 2.946         | 5,934 | 0.693                | 5,932 |
|          | Victim within last two years       | 0.739                | 381   | 2.867         | 381   | 0.756                | 381   |
|          | t-value                            | 3.336***             |       | 1.625         |       | 3.679***             |       |
| Assault  | Not a victim within last two years | 0.677                | 6,204 | 2.946         | 6,229 | 0.695                | 6,226 |
|          | Victim within last two years       | 0.797                | 112   | 2.781         | 113   | 0.819                | 113   |
|          | t-value                            | 3.479***             |       | 1.881         |       | 4.008***             |       |
| Burglary | Not a victim within last two years | 0.704                | 3,052 | 2.985         | 3,062 | 0.701                | 3,057 |
|          | Victim within last two years       | 0.807                | 38    | 2.896         | 38    | 0.830                | 38    |
|          | t-value                            | 1.744                |       | 0.585         |       | 2.348*               |       |

\*  $p < 0.05$ , \*\*  $p < 0.01$ . \*\*\*  $p < 0.001$ 

### Victimisation experience, fear of crime and life satisfaction

One aim of the present study is to analyse the impact of victimisation events on broader measures of subjective well-being. Victimisation experi-

ence is, therefore, brought into relation with satisfaction with life. T-tests between victims and non-victims within the last two years by offence reveal significant differences for theft and assault. Individuals who have been victims of a theft or an assault report a significantly lower level of life satisfaction, and this effect seems to be stronger for assault (Table 11.6). By contrast, victims of burglary do not report less satisfaction with life than non-victims. These findings, however, are only bivariate and do not control for other important determinants of crime.

Satisfaction with life is also related to fear of crime. Bivariate Pearson correlations reveal a significant negative relationship with affective fear of crime in logs (-0.084,  $p < .001$ ), cognitive fear of crime in logs in logs (-0.074,  $p < .001$ ), the perception of crime trends (-0.069,  $p < .001$ ) and conative fear (-0.042,  $p < .001$ ).

As the bivariate analyses have shown that burglary victimisation has almost no significant impact either on fear or on life satisfaction and data on burglary are only available for part of the sample, this type of victimisation is dropped from the further analyses.

Table 11.6 Mean comparison between victims within the last two years by offence

|                                 | <b>Theft</b>              |       | <b>Assault</b>            |       | <b>Burglary</b>           |       |
|---------------------------------|---------------------------|-------|---------------------------|-------|---------------------------|-------|
|                                 | Mean of life satisfaction | N     | Mean of life satisfaction | N     | Mean of life satisfaction | N     |
| No victim within last two years | 4.713                     | 5,856 | 4.709                     | 6,143 | 4,667                     | 3,000 |
| Victim within last two years    | 4.527                     | 374   | 4.150                     | 113   | 4,649                     | 37    |
| t-value                         | 2.299*                    |       | 3.881***                  |       | 0.068                     |       |

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

### 11.3.3 Time heals all wounds? The impact of victimisation over time

In the literature, various time spans are used for the definition of victims for the purposes of analysis. Mostly, the question relates to victimisation experience over the last one or two years, but victimisation experience may also have longer-lasting impacts, even though strong initial effects may decline over time. This section, therefore, analyses the impact of victimisation experience on fear and life satisfaction over time.

One way to analyse the impact of victimisation experience over time is to compare groups of people who differ by the length of time since the last victimisation experience. For the analysis, respondents were categorised –

by offence type – into six different groups: non-victims, victims within this or the last year, two years ago, three to five years ago, six to ten years ago and more than ten years ago (Table 11.7).<sup>10</sup>

*Table 11.7 Years since last victimisation experience*

|                     | Theft    |         | Assault  |         |
|---------------------|----------|---------|----------|---------|
|                     | absolute | percent | absolute | percent |
| Non-Victim          | 4,801    | 75.94   | 5,804    | 91.42   |
| Zero or one year    | 242      | 3.83    | 82       | 1.29    |
| Two years           | 139      | 2.20    | 31       | 0.49    |
| Three to five years | 339      | 5.36    | 84       | 1.32    |
| Five to ten years   | 338      | 5.35    | 118      | 1.86    |
| More than ten years | 463      | 7.32    | 230      | 3.62    |

The impact of the victimisation variables was assessed by entering all victimisation groups as dummies into regression models (see Figures 11.1 and 11.2). Additionally, survey wave dummies, sex and age were included as control variables. The dependent variables were satisfaction with life, and affective and cognitive fear of crime. No models were estimated for avoidance behaviour, as the bivariate analyses did not find an impact of victimisation.

Looking at the victimisation coefficients from the models for affective fear, it can be seen that all of them are significant and that the impact of the victimisation also declines over time. However, in the models for assault and theft the coefficients for victimisation two years ago have the highest values, indicating a tendency for an inverse U-shaped relationship.

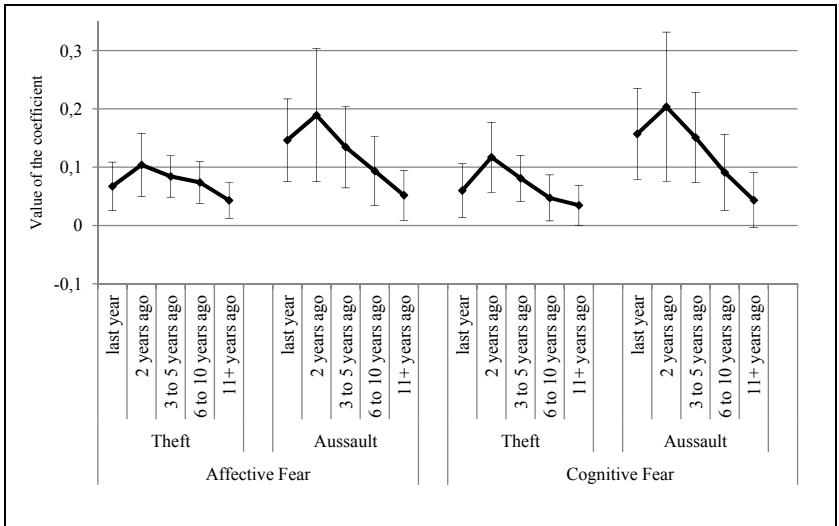
Similar results are found for the impact of victimisation experience on subjective victimisation risk. But the inverse U-shaped pattern cannot be proved in a statistically significant manner.<sup>11</sup> The overlapping 95 percent confidence intervals give an advance indication of that finding.

10 Participants were asked for the year when the last victimisation experience happened. Based on this information and the fact that every wave was surveyed at the beginning of the year, the time of the last crime event could be computed in the same way.

11 In addition, choosing the group with the highest coefficient as reference group in each of the four models shows the only group that significantly differs from this group to be victims whose victimisation happened more than ten years ago. In the model for affective fear there is no difference between the victim groups at all.

For further multivariate analyses, two victimisation groups are computed: One group with those who became victim within the last two years, victimisation having been found to peak during that time span. The second group comprises all victimisations that are more than two years ago.

Fig. 11.1 Effect of victimisation on fear of crime by time since last event (coefficients of OLS-regression with affective/cognitive fear as dependent variable and 95 percent confidence intervals shown; models control for sex, age and survey wave)

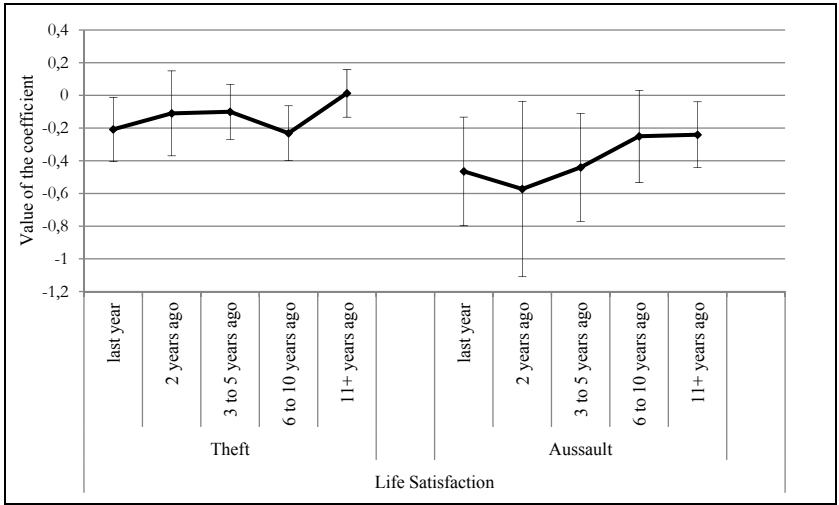


The same strategy was applied to uncover the impact of victimisation on life satisfaction over time. The results support the assumption of a declining impact of victimisation experience on life satisfaction in general (Figure 11.2). The magnitude of the coefficients for theft declines as distance from the last victimisation experience grows and only the dummy for the most recent victimisation is significant; however, there is an anomaly in the dummy indicating six to ten years.

Inspecting the model for assault more closely shows the coefficients to be declining in magnitude, producing a U-shaped pattern. The coefficients stay significant (the coefficient for victimisation experience five to ten years ago only marginally). Examining the coefficients more closely shows that there is no significant difference between individuals victimised one and two years ago and the other victim groups for assault.

Thus, the U-shaped/declining pattern of the relationship cannot be statistically confirmed.

Fig. 11.2 Effect of victimisation on life satisfaction by time since last event (coefficients of OLS-regression with life satisfaction as dependent variable and 95 percent confidence intervals shown; models control for sex, age and survey wave)



### 11.3.4 Multivariate regression models

#### Fear of crime

The final step undertaken to analyse the effect of victimisation experience on fear of crime and life satisfaction is the estimation of multivariate regression models. This step firstly makes it possible to check the robustness of the findings controlling for other relevant determinants known to influence fear and life satisfaction. Secondly, this section aims to integrate victimisation and fear of crime into a combined model explaining life satisfaction.

The control variables show quite similar effects in all models and for all four dimensions of fear of crime (Table 11.8). Women, older individuals, and people with low education levels and low incomes show higher levels

of fear of crime. People from eastern Germany report a higher level of fear of crime except for the affective component. There is no difference regarding affective fear of crime between the eastern and the western part of Germany.

Table 11.8 Influencing factors of fear of crime, OLS-regression

| Variable                                  | Affective fear of crime (log) |           | Cognitive fear of crime (log) |           | Conative fear |           | Perception of crime trends |            |
|---|-------------------------------|-----------|-------------------------------|-----------|---------------|-----------|----------------------------|------------|
|   | b                             | t         | b                             | t         | b             | t         | b                          | t          |
| <b>2004 survey wave (ref.)</b>            |                               |           |                               |           |               |           |                            |            |
| 2006                                      | -0.011                        | -0.76     | -0.014                        | -0.93     | -0.046        | -1.26     | -0.115                     | ** -2.60   |
| 2010                                      | -0.007                        | 0.71      | -0.041                        | *** -3.54 | -0.083        | ** -3.09  | -0.454                     | *** -13.83 |
| <b>Age</b>                                | 0.000                         | 1.10      | 0.002                         | *** 6.77  | 0.013         | *** 17.52 | 0.004                      | *** 4.92   |
| <b>Male (ref.)</b>                        |                               |           |                               |           |               |           |                            |            |
| Female                                    | 0.112                         | *** 12.73 | 0.082                         | *** 8.34  | 0.613         | *** 26.52 | 0.216                      | *** 7.64   |
| <b>Low education (ref.)</b>               |                               |           |                               |           |               |           |                            |            |
| Medium education                          | -0.011                        | -0.99     | -0.017                        | -1.33     | -0.060        | * -2.00   | -0.910                     | * -2.48    |
| High education                            | -0.039                        | ** -3.41  | -0.048                        | *** -3.72 | -0.189        | *** -6.24 | -0.347                     | *** -9.36  |
| <b>West (ref.)</b>                        |                               |           |                               |           |               |           |                            |            |
| East                                      | 0.001                         | -0.06     | 0.025                         | * 2.00    | 0.055         | 1.85      | 0.093                      | * 2.58     |
| <b>Equivalent income (log)</b>            | -0.029                        | ** -3.32  | -0.026                        | ** -2.74  | -0.135        | *** -5.98 | -0.150                     | *** -5.41  |
| <b>Non-victim of theft (ref.)</b>         |                               |           |                               |           |               |           |                            |            |
| Victim of theft in last two years         | 0.078                         | *** 4.19  | 0.082                         | *** 3.99  | 0.012         | 0.24      | -0.023                     | -0.40      |
| Victim of theft more than two years ago   | 0.063                         | *** 5.50  | 0.049                         | *** 3.85  | -0.065        | * -2.15   | -0.045                     | -1.23      |
| <b>Non-victim of assault (ref.)</b>       |                               |           |                               |           |               |           |                            |            |
| Victim of assault in last two years       | 0.138                         | *** 3.97  | 0.159                         | *** 4.05  | 0.142         | 1.55      | 0.266                      | * 2.38     |
| Victim of assault more than two years ago | 0.072                         | *** 4.02  | 0.067                         | *** 3.36  | 0.037         | 0.80      | 0.053                      | 0.92       |
| <b>Constant</b>                           | 0.706                         | *** 10.61 | 0.631                         | *** 8.48  | 2.427         | *** 13.90 | 6.375                      | *** 29.87  |
| <b>Number of cases</b>                    | <b>5,495</b>                  |           | <b>5,474</b>                  |           | <b>5,494</b>  |           | <b>5,448</b>               |            |
| <b>Adj. R<sup>2</sup></b>                 | <b>0.046</b>                  |           | <b>0.037</b>                  |           | <b>0.178</b>  |           | <b>0.095</b>               |            |

\*\*\* p < .001, \*\* p < .01, \* p < .05

When looking closer at the changes over time, there is no significant change for affective fear over the years. Looking at the perception of crime, however, it is seen that respondents in 2006 and in 2010 estimated the increase in crime less dramatically than 2004. Respondents in 2010 have the most realistic perception on crime compared to respondents in the other years, although their estimates are still far higher than in reality.



Cognitive and conative fear of crime show significant decreases between 2004 and 2010.

Two dummies for each type of crime indicate individuals who were victimised during the last two years and those where it has been more than two years since their last victimisation experience. Having been a victim of assault has a stronger effect on both affective and cognitive fear of crime than having been a victim of theft.

In addition, having been victim of theft or assault within the last two years has a stronger effect on affective and cognitive fear of crime than having been victimised more than two years ago. A closer look at the significance of these differences between the victimisation groups reveals that victims of assault report a significantly lower level of cognitive fear of crime more than two years after the victimisation than within the last two years after the victimisation. No significant differences are found for affective fear and for victims of theft.<sup>12</sup>

The two other indicators of fear of crime show hardly any effects of victimisation. Moreover, the coefficients for theft turn in the inverse direction, repeating the bivariate findings: Individuals who were victims of a theft more than two years ago therefore show significantly less avoidance behaviour than non-victims. The coefficients for assault are in the expected direction, but very weak. Only victims of assault within the last two years perceive the increase in crime within the past ten years more dramatically than non-victims.

## Life satisfaction

For the multivariate analyses of life satisfaction, three OLS-regression models were calculated in which blocks of variables were entered stepwise. As has previously been said, age, sex, income, and occupational and family status are important factors for subjective well-being. Model II includes the categories of victimisation and Model III the fear of crime variables.

Looking at life satisfaction as a dependent variable, it is seen that life satisfaction does not change over the observed years. The significant coefficients for age and age squared confirm the U-shaped relationship be-

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12 Analyses based on simply changing the reference categories.

tween age and life satisfaction (Frey/Stutzer 2002). As expected, life satisfaction grows with the education level and income. People from the eastern part of Germany and people who are unemployed are less satisfied with life. Family status shows that divorced, separated or widowed individuals without a new partner are least happy persons compared with those who are married, followed by those who are unmarried without a partner and those who are unmarried but with a partner. There is no difference between people who are married and those who are divorced, separated or widowed but have found a new partner.

Including the variables of victimisation, the models illustrate no effects for individuals who have been victims of theft. Looking at the victims of assault, however, there is a strong effect for victimisation within the last two years that declines for assaults more than two years ago. But once again, there is no significant difference between victimisation within the last two years and more than two years ago.

Adding the fear of crime variables to Model III, the adjusted  $R^2$  gains significantly from 0.069 to 0.077. Affective fear of crime does not have an effect on life satisfaction; nor does cognitive fear of crime. However, subjective victimisation risk (cognitive fear) and personal perception of increasing crime levels within society lead to a less satisfied life. Controlling for fear of crime reduces the coefficients of victimisation, but the p-values remain at the same level. There seems to be a direct effect of having been a victim of assault on life satisfaction.

An unexpected finding is the insignificant effect of affective fear of crime on life satisfaction, in contradiction of the bivariate findings. This may be a result of the high correlation between affective fear and risk ( $r = 0.665$ ). Although the VIF values for affective and cognitive fear are not too high, it is known that multicollinearity increases standard errors, and this may result in a non-significant coefficient (Urban/Mayerl 2006, pp. 229-230).

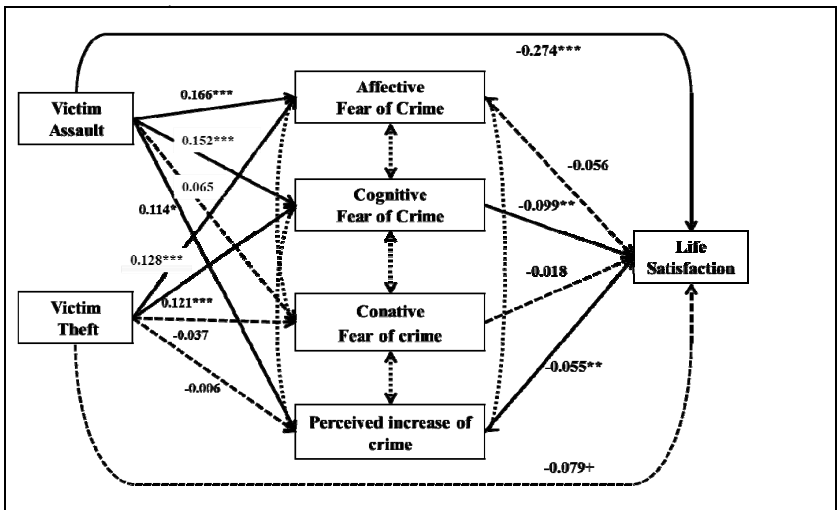
Table 11.9 Influencing factors of life satisfaction, OLS-regression

| Variable                                     | Model I   |       | Model II  |       | Model III |       |
|--|-----------|-------|-----------|-------|-----------|-------|
|  | b         | t     | b         | t     | b         | t     |
| <b>2004 survey wave (ref.)</b>               |           |       |           |       |           |       |
| 2006   | 0.017     | 2.61  | 0.018     | 0.28  | 0.005     | 0.08  |
| 2010   | -0.029    | -0.61 | -0.045    | -0.93 | -0.080    | -1.64 |
| Age  | -0.038*** | -4.57 | -0.040*** | -4.81 | -0.041*** | -5.00 |
| Age <sup>2</sup>                             | 0.000***  | 5.17  | 0.000***  | 5.34  | 0.000***  | 5.62  |
| <b>Male (ref.)</b>                           |           |       |           |       |           |       |
| Female                                       | 0.048     | 1.13  | 0.027     | 0.64  | 0.101*    | 2.25  |
| <b>Low education (ref.)</b>                  |           |       |           |       |           |       |
| Medium education                             | 0.085     | 1.60  | 0.090     | 1.68  | 0.078     | 1.46  |
| High education                               | 0.165**   | 3.05  | 0.171**   | 3.15  | 0.131*    | 2.41  |
| <b>West (ref.)</b>                           |           |       |           |       |           |       |
| East   | -0.159**  | -2.97 | -0.168**  | -3.14 | -0.158**  | -2.96 |
| Equivalent income (log)                      | 0.355***  | 8.51  | 0.356***  | 8.52  | 0.331***  | 7.93  |
| <b>Family status married (ref.)</b>          |           |       |           |       |           |       |
| Unmarried with partner                       | -0.266**  | -2.98 | -0.249**  | -2.79 | -0.235**  | -2.64 |
| Unmarried without partner                    | -0.332*** | -4.98 | -0.314*** | -4.71 | -0.335*** | -5.03 |
| Divorced, separated, widowed with partner    | -0.163    | -1.22 | -0.142    | -1.06 | -0.146    | -1.10 |
| Divorced, separated, widowed without partner | -0.352*** | -5.43 | -0.338*** | -5.21 | -0.350*** | -5.42 |
| <b>Occupation employed (ref.)</b>            |           |       |           |       |           |       |
| Student                                      | 0.099     | 0.93  | 0.096     | 0.90  | 0.086     | 0.81  |
| Pensioner                                    | -0.075    | -0.99 | -0.077    | -1.02 | -0.053    | -0.71 |
| Unemployed                                   | -0.929*** | -9.25 | -0.913*** | -9.09 | -0.904*** | -9.04 |
| Other  | 0.014     | 0.20  | 0.021     | 0.30  | 0.012     | 0.17  |
| <b>Non-victim of theft (ref.)</b>            |           |       |           |       |           |       |
| Victim of theft in last two years            |           |       | -0.135    | -1.57 | -0.110    | -1.28 |
| Victim of theft more than two years ago      |           |       | -0.059    | -1.10 | -0.048    | -0.91 |
| <b>Non-victim of assault (ref.)</b>          |           |       |           |       |           |       |
| Victim of assault in last two years          |           |       | -0.491**  | -2.94 | -0.421*   | -2.53 |
| Victim of assault more than two years ago    |           |       | -0.189*   | -2.27 | -0.166*   | -2.00 |
| <b>Affective fear (ln)</b>                   |           |       |           |       |           |       |
|  |           |       |           |       | -0.102    | -1.17 |
| <b>Cognitive fear (ln)</b>                   |           |       |           |       |           |       |
|  |           |       |           |       | -0.189*   | -2.55 |
| <b>Conative fear</b>                         |           |       |           |       |           |       |
|  |           |       |           |       | -0.052    | -1.95 |
| <b>Perception of crime</b>                   |           |       |           |       |           |       |
|  |           |       |           |       | -0.054**  | -2.70 |
| Constant                                     | 3.088***  | 8.20  | 3.226***  | 8.54  | 3.973***  | 9.87  |
| Number of cases                              | 5,292     |       | 5,292     |       | 5,292     |       |
| Adj. R <sup>2</sup>                          | 0.067     |       | 0.069     |       | 0.077     |       |

\*\*\* p &lt; .001, \*\* p &lt; .01, \* p &lt; .05

In order to combine the direct and indirect effects of victimisation in one model, a path model was calculated. The manifest variables of fear of crime consist of the items described earlier. The fear of crime variables were modeled as dependent variables of victimisation and as independent variables of life satisfaction. The model does not differentiate between the time since the last victimisation experience for assault/theft. Sex, age, income, education, and east-west location are included as control variables. The paths of the control variables are not mapped in Figure 11.3 as they show the expected direction and weight and the results correspond to the OLS models above.

Figure 11.3 Factors influencing life satisfaction, path model (RM-SEA = 0.023, CFI = 0.997, TLI = 0.979, 5,386 respondents, \*\*\*  $p < .001$ , \*\*  $p < .01$ , \*  $p < .05$ , +  $p < .10$ , standardized coefficients shown)



Looking at the paths from victimisation to the components of fear, the coefficients correspond to those in the regression model in Table 11.8. Having been victimised (assault or theft) leads to a higher level of affective and cognitive fear of crime. The perceived increase of crime is only affected by assault victimisation. In total, assault has higher coefficients on the fear variables compared to theft.

Looking at the determinants of life satisfaction, only cognitive fear and perception of crime have a significant negative impact on life satisfaction. In addition, there is also a direct and significant effect of victimisation experience (assault) on life satisfaction.

#### 11.4 *Conclusions*

A review of existing research on victimisation and fear of crime revealed varied findings: There seems to be an impact of victimisation on fear, but the impact depends on the dimension of fear and the type of crime. The present paper, therefore, aimed to examine more closely the relationship between the dimensions of fear and victimisation experience. The study furthermore integrated the consequences of victimisation experience into a broader perspective by assessing its impact on satisfaction with life.

The analysis showed that victims report higher levels of fear, but the relationship does not hold for every dimension of fear or type of victimisation. Having been a victim of theft or assault increases the cognitive and affective component of fear of crime significantly – controlling for known covariates. These results cannot be confirmed for perception of crime trends in general; here only very weak relationships are found.

Furthermore, the relationship between victimisation and fear of crime is stronger for crime-specific fear items. Experience of assault or burglary, for example, leads to a more dramatic view on the past trend in this type of crime.

In the analyses, cognitive fear turns out to be decreased by the experience of theft. Having been victim of an assault does not affect cognitive fear at all. With a view to our hypotheses, this appears to be an unexpected result, at least at first sight. Looking closer, however, the outcome makes sense. People who show a higher degree of avoidance behaviour avoid risky situations and thereby lower their actual risk of becoming a victim. This does not rule out the possibility that victims of crime may increase their avoidance behaviour, but it is not possible to disentangle the two effects with cross-sectional data.

The effect of victimisation experience on fear of crime also declines over time. The relationship seems to be inverse U-shaped, with people victimised two years ago reporting the highest values for fear. For the affective component of fear, the multivariate model showed no significant difference between the ‘last two years’ and ‘more than two years ago’ vic-

tim groups, either for theft or for assault. Solely for the cognitive component of fear regarding the victims of assault there was evidence that ‘time heals all wounds’.

Assessing the impact of victimisation on life satisfaction, the assumptions were partly confirmed. Victims of assault report lower satisfaction with life than non-victims in the multivariate model. For victims of theft, there is only an impact in the bivariate model and a statistically weak effect in the path model. No impact for victims of burglary is found. This may be due to unexplained heterogeneity that affects victimisation as well as life satisfaction. Perhaps the low number of burglary victims leads to a lack of statistical power.

The hypothesis on the declining impact of victimisation experience on life satisfaction over time could not be confirmed statistically; however, a tendency towards a declining impact is showed for assault.

The bivariate analyses revealed a negative correlation between the four dimensions of fear of crime and life satisfaction: A higher level of fear leads to less satisfaction. But a closer look shows that this does not hold for every dimension of fear. In the multivariate model, affective fear did not impact life satisfaction. Only perception of crime and cognitive fear lowered life satisfaction significantly. Perhaps life satisfaction is more affected by cognitive evaluations of the situation and therefore affective fear does not have an influence on it.

The reason for the lack of significance for affective fear may also lie in the fact that affective fear and cognitive fear are highly correlated, so the two dimensions cannot be properly disentangled. A possible solution to this problem, appropriate when the interest lies in fear as an independent variable, would be to combine the two indicators into a single construct that measures personal fear of crime (Bilsky/Wetzels 1997).

Conative fear also does not impact life satisfaction. It can be assumed that a higher level of avoidance behaviour leads to a feeling of safety and control which tends to result in more satisfaction with life.

In sum, the impact of victimisation and fear of crime on life satisfaction has to be compared to other determinants of life satisfaction. The impact of unemployment is more than twice as large, for example, as the coefficient for ‘victim of assault in the last two years’.

The empirical analyses are not without shortcomings. On the one hand, the data base is only cross-sectional. It is not therefore possible to determine if victimisation itself increased fear or if victims had a higher level of fear even before the victimisation event. This is not implausible as a

higher fear of crime may be a reaction to an elevated actual level of victimisation risk. Also, the hypothesis of a declining effect of victimisation on fear of crime and life satisfaction could be better studied in a longitudinal setting. In addition, the present paper focuses on the consequences of victimisation. Other determinants of fear, namely disorder and the impact of the media were consequently not controlled for.

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