Part II:
What People Think about Crime and What They Really Experience

3. Public Perceptions of Crime

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3.1 Theoretical considerations and past research findings

Crime can be measured objectively using a range of crime statistics.[1] These have various disadvantages, the most important being that they only relate to reported crime. In addition crime also has a subjective side. At least two areas must be considered in this respect: fear of crime, and opinions on crime prevalence and past crime trends. In the following, such opinions are looked at more closely under the heading of 'perceptions of crime'.[2]

Unlike fear of crime, perceptions of crime are rarely the focus of empirical research about the subjective side of crime. This can perhaps be explained by the idea that perceptions may have fewer consequences and are thus less burdensome to the individual. On the other side, fear of crime may have more serious impact on behaviour (such as by triggering avoidance) and thus have greater impact on individual wellbeing. Whether the actual prevalence of or real trends in crime are over-estimated or under-estimated could be seen as of far little relevance. However, this paper will go on to contradict this view.

Based on the findings of Windzio et al. (2007), it can be assumed that over-estimation of crime prevalence and trends goes hand in hand with increased punitivity. Those who believe there is a constant rise in crime tend to call more frequently for policymakers to tackle the problem with stricter sentencing. If, at the same time, it is assumed that policy in general, and especially crime policy, is increasingly shaped according to the results of opinion surveys (cf. Albrecht 2004), then an over-estimation of crime shared by the majority would provide the basis for more punitive policies (including stricter sentencing, and criminalisation of certain behaviours and social groups). This in turn would be negative on two counts: On the

1 See Baier and Hanslmaier in this volume.

2 Fear of crime is addressed in the contribution by Hanslmaier, Kemme and Baier in this volume.

one hand, funding would be concentrated on one area (such as prosecution) and withdrawn from others (such as social and education policy); on the other it would support stricter sentencing whose crime-reducing effect is questionable. Looking to the example of juvenile crime, it has been repeatedly shown that rather than reducing crime, stricter sentencing actually promotes it (Heinz 2006).

The relationship between perceptions of crime and crime policy is not always a one-way street where policy responds to perception. Many national and international examples show that policymakers repeatedly push the issue of crime into the spotlight during election campaigns in order to win votes. In most cases, individual offences are used to establish general diagnoses for negative social trends that must be countered with harsh and determined action.[3] Crime perception within society can thus be shaped in this way, especially in the absence of prior realistic perceptions. Preventing this form of manipulation is another reason to give greater attention to the subjective side of crime.

As with other crime-related attitudes and assumptions, perceptions of crime are likely to be influenced not only by individual events of social relevance, but also by a range of other influencing factors. Baier et al. (2011, p. 9f) differentiate here between two key factors. The first of these is knowledge of the subject of crime, while the second involves character traits that match specific standpoints (and thus also standpoints on crime). The knowledge is shaped in turn by at least three factors. Of primary importance among these is personal experience as a victim of crime. People who have personally been a victim of crime have physical experience of the existence of crime and of what it means for those involved. Assumptions on how widespread crime is and on trends in crime are then co-shaped by such personal experience (cf. Lüdemann 2006) so that people exposed to crime tend to believe that crime is very wide-spread and constantly on the rise. Secondly, educational level is also likely to play a role in crime-related knowledge. A high level of education can be assumed to go hand in hand with a greater need to be well informed about social phenomena. This can lead to more realistic perceptions of crime. Windzio et al. (2007, p. 53 ff) confirmed this in their study. They also cite age (older respondents perceive a greater rise in crime) and gender (women perceive

3 For an example, see the 2008 election campaign in the German State of Hesse (Pfeiffer/Baier 2008).

a stronger rise in crime) as influencing factors. One explanation for both of these findings can be sought in the vulnerability hypothesis (cf. Kreuter 2002, Pantazis 2000). Certain social groups have greater vulnerability, meaning they are less able to defend themselves, incur more serious injuries when assaulted, and are less able to recover. Anticipation of this vulnerability results in a more negative standpoint.

Thirdly, knowledge of the subject of crime is largely tied to the media people use to obtain information. Communication of crime-related knowledge via the media can be both explicit and implicit. Explicit means that, for example, news programmes and other formats report precise numbers of crimes, the objective trends revealed in crime statistics, and also scientific findings on causes of crime. Implicit means that certain fictional formats allow conclusions to be drawn on crime trends, causes, prevention and intervention. In all of this, it can be assumed that in different ways, commercial and public service media and the tabloid and broadsheet press use explicit and implicit methods to report on crime, thus communicating different types of knowledge which in turn leads to differing perceptions, emotions and attitudes.

The media are the main channel through which people receive information about crime. However, this information, especially when it does not involve explicit information, is filtered in a special way or pre-prepared. In media logic, crime is a key issue that promises rare and exciting content. Crime is thus given wide media coverage. A small slice of reality is placed under the magnifying glass. Both in non-fictional and fictional formats, crime is frequently presented in a dramatic, emotive form, among other things by focusing on victims of crime or by demonising offenders (cf. Hestermann 2010, p. 198ff). As Pfeiffer et al. (2005) show, the establishment of commercial television in Germany, which largely targets public taste (meaning audience share), brought an increase in the number of programmes that focus on crime. Lehnert (2010) also reported that the volume of daily programming with crime-related content rose from 15.4 hours in 1985 to 239.2 hours in 2009. The share of crime-related programming in television as a whole increased across all television broadcasters analysed by Lehnert (2010). The increase is less prominent among public service broadcasters than with commercial broadcasters, and the share of such programming in public service television overall is significantly lower.

Explicit analysis of news programmes reveals significant differences between commercial and public service broadcasters, as seen in the find-

ings of Krüger (2010). Crime-related topics take up more airtime in major news programmes on commercial television than they do in Germany's two public service broadcasters, ARD and ZDF. The commercial broadcasters "focus more on criteria such as emotionalisation, personal involvement and the entertainment value of news" (Krüger 2010, p. 55). When it comes to the different types of newspaper, Schwacker (1983) and Schneider (1991) report that tabloids tend towards sensation and drama, while the broadsheets write incidental, short, objective pieces about crime (cf. Hanslmaier and Kemme 2011).

These analyses are confirmed by findings on how media consumption influences perceptions of crime. For example, Pfeiffer et al. (2005) and Windzio et al. (2007) show that frequent consumption of news programmes broadcast by commercial television results in people perceiving a sharp increase in crime that has not in fact taken place in Germany. Reading supra-regional newspapers (the broadsheet press) has the opposite effect. However, watching public service news along with early-evening magazine shows and documentaries, which are mostly shown on commercial television, has no link whatsoever with perceptions of crime.

Aside from the factors already cited as influencing knowledge of crime (victimhood, education and other demographics, the media), it can also be assumed that differing personality traits shape perceptions of crime. Anxious people, for example, are more likely to perceive crime rates (along with with other fear-inducing phenomena) as being on the rise than are less anxious people. General anxiety is likely to result in the specific anxiety involved in the fear of crime. People who demonstrate heightened fear of crime can thus be expected to perceive crime as being on the rise.

One particularly noteworthy trait is authoritarianism (cf. Adorno et al. 1950, Altemeyer 1981). Authoritarian individuals tend to stick to established norms and place social conformity above personal autonomy (Feldman 2003). Butler (2009) assumes that authoritarians are especially sensitive to threats to social order and to the status quo. Such a threat can occur through criminal behaviour. Authoritarians are thus likely to be more concerned about trends in crime and have a heightened perception of crime than less authoritarian individuals. Other personality traits are, of course, also likely to be relevant. Nonetheless, given the available data, the empirical section of this paper focuses on the traits of fear of crime and authoritarianism.

The aim of this paper is firstly to use representative survey studies conducted throughout Germany to provide an insight into how people in Ger-

many perceive the frequency of and trends in crime, and whether they tend to under-estimate or over-estimate frequency and trends. Secondly, in line with the findings presented, it focuses on the influencing factors of perceptions of crime. Thirdly and finally, the relationship between perceptions and punitivity is central to the analysis. In looking at that relationship, the authors draw on a longitudinal study which allows analysis of cause and effect relationships.

3.2 Samples

The Criminological Research Institute of Lower Saxony (CRLS) conducted similar surveys of representative groups of the German population in 2004, 2006 and 2010. Respondents were asked about their perceptions of crime, the influencing factors and possible consequences (Table 3.1). In each of the selected years, a postal survey was conducted, i.e. respondents received a personally addressed questionnaire which they were asked to complete and return. Sampling was based on an access panel. This involves a pool of households and individuals whose addresses and key socio-demographic data are stored by an opinion research institute and who have declared their willingness to participate in such surveys at regular intervals. Because access panel members are generally willing to take part in surveys and attention is paid to ensure that the panel reflects the overall population in Germany, these panels guarantee both a high response rate (over 60 percent in all three years) and a high level of reliability concerning the survey results.

The surveys in 2004 and 2010 were cross-sectional surveys. This was only partly the case for the 2006 survey: One half consisted of people surveyed for the first time, while the other half had been surveyed before. This was done in attempt to reach respondents from 2004. This approach has the advantage to draw causal conclusions because the causes are documented before the consequences. The basis of the longitudinal sub-study thus consisted of respondents from the 2004 survey. Unfortunately, it was only possible to write to around three-quarters of those respondents because some had left the access panel (cf. Windzio et al. 2007).

The cross-sectional surveys targeted people aged 16 and above who live in Germany. They were conducted at the beginning of the years in question, with most people being questioned in January. This period was chosen to prevent respondents checking the Police Crime Statistics in or-

der to inform themselves about the number of crimes committed in the year prior to the survey. These statistics are published every spring to report the figures for the previous year.

Table 3.1 Survey and sampling (weighted data)

	2004	2006		2010
		Cross Section	Longitudinal	
Targeted age group	16 and over	16 and over	18 and over	16 and over
Survey period	8.1.-6.2.2004	5.1.-2.2.2006		7.1.-1.2.2010
Response rate (%)	64	70	81	86
Respondents for analyses	**2,017**	**1,110**	**1,206**	**3,245**
Male respondents (%)	48.0	48.1	42.0[a]	48.6
Education: low (%)	53.1	46.5	35.7[a]	44.8
Education: medium (%)	27.8	29.6	33.1[a]	27.9
Education: high (%)	19.1	23.9	31.2[a]	27.4
Average age	47.91	48.91	51.84[a]	49.25

[a] Figures based on non-weighted data.

A total of 2,017 people were questioned in the cross-sectional survey in 2004, 1,110 in 2006 and 3,245 in 2010. However, respondents were, at least in part, a selective group (cf. Baier et al. 2011, p. 26ff). In all three survey years, too few low educated people (no school leaving qualification or *Hauptschule* leaving qualification) took part in the survey compared with the overall population (Germany), as did too many high educated people (*Fachabitur*, *Abitur*, degree). This discrepancy was corrected with weightings. In the case of educational qualifications, this means that low educated respondents were weighted not with one but with a value greater than one, while high-educated respondents were weighted less than one. By using these weightings, the samples are adjusted to match the known distribution within the overall population. A large portion of the results presented in the following sections are based on weighted data. Only in the analysis of the longitudinal survey data were not weighted because the focus here was on the direction of the causal relationship.

At the time of all the surveys, around half the respondents were male (also Table 3.1). The average age was 48, although a comparison of the three surveys shows a slight increase in average age over time. This is not surprising given demographic trends in Germany. There is also a rise in the average education level: In 2004, only 19.1 percent of respondents had a high education level, while in 2010 this figure had risen to 27.4 percent.

Compared with the cross-sectional and longitudinal surveys conducted in 2006, noticeably fewer male, low educated, younger respondents were questioned. Because the longitudinal analysis was only used to verify the direction of the relationship between crime perception and punitivity, the discrepancies relative to the overall population appear unproblematic.

3.3 Perceptions of prevalence of and trends in crime

To ascertain how widespread people in Germany perceive crime to be, respondents were asked to look at a list of offences and then enter the number of offences recorded by the police in the year prior to the survey. In the 2010 survey, for example, respondents were asked to estimate the number of offences recorded by the police for 2009. Because such estimation questions are difficult to answer, respondents were given guidance in the form of the number of offences recorded eleven years prior to the survey – meaning they were given the data for 1999 with the 2010 survey. Thus, 2010 respondents could see that 6,302,000 crimes were committed in Germany in 1999. They were asked to enter their estimate for 2009 alongside the figures for 1999. The questionnaires cited the offences listed in Table 3.2. In contrast with the chapter on the Police Crime Statistics,[4] respondents were not asked about total theft, damage to property, violent crime (including robbery and rape), or drug-related crime. In the case of assaults, no distinction was made between assault and aggravated assault because, at least in terms of the trends, no differences exist between the two types of crime.

Because the respondents were able to freely estimate the number of crimes, some of the input produced very high figures. These would have a large impact when calculating means. Where such a distribution is encountered, two analysis approaches are available: Either outliers can be excluded from the analysis or the median can be used rather than the mean. Because the median is a value whose informational content is limited, it is wise to keep to presenting the mean. For this reason, the strategy of excluding outliers was applied. Outliers were defined as data in the upper and lower one percent of the distribution. Respondents with values in

4 Baier and Hanslmaier in this volume.

the upper and lower one percent of the distribution were not included in the analysis of mean values.

Table 3.2 shows that in all three years and for almost all types of offences listed, respondents' average estimates are higher, in some cases significantly higher, than the figures in the Police Crime Statistics. Respondents who took part in the 2010 survey estimated the number of crimes committed in Germany at over eight million – one third more than the actual figure. In 2006, the estimate (for 2005) was one quarter higher than the actual figure. The discrepancies are particularly big in respect of sexual murder, car theft, murder and domestic burglary. For sexual murder, for example, respondents in 2010 cited five-times as many crimes as actually occurred. Only in the case of fraud and assault did people's perceptions largely match actual trends. Where assault was concerned, estimates even assumed a slightly lower rise than shown in the Police Crime Statistics. Two findings can be construed from the data: Firstly, people in Germany appear to be inadequately informed about crimes whose frequency is on the decline; crimes that increase over the years are, however, correctly estimated. Secondly, compared with the three survey years, it appears that perceptions become more realistic over time. The relative deviations decrease in relation to domestic burglary, car theft and murder. People appear to be more realistically informed about these crimes as time goes by.

Table 3.2 Crime rates according to the Police Crime Statistics, survey responses and relative deviations (weighted data)

	Police Crime Statistics 2009	2010 survey estimates	Relative deviation 2010 (%)	Relative deviation 2006 (%)	Relative deviation 2004 (%)
total crimes committed	6,054,330	8,128,624	34.3	23.1	-[a]
fraud	735,058	752,768	2.4	2.9	-2.6
assault	544,853	518,613	-4.8	-10.2	1.9
domestic burglary	113,800	212,483	86.7	184.4	174.6
car theft	40,375	125,626	211.1	474.0	423.8
murder	299	572	91.2	104.7	136.6
sexual murder	8	41	408.9	239.2	549.1

[a] No difference is shown for 2004 because an erroneous comparison value was cited in the questionnaire.

What is interesting is not only the comparison with the year prior to the survey, because the number of crimes committed was unknown at the time of the survey; comparison with same time eleven years earlier, which respondents used as a reference in the questionnaire, clearly brings out the same misconception (Table 3.3). While the number of crimes is generally on the decline (down 3.9 percent between 1999 and 2009), respondents perceive a strong increase: They perceive a 29.0 percent rise in the number of crimes committed. By way of contrast, in the case of fraud and assault, trends in the Police Crime Statistics and perceived crime are close together, while with all other crimes the differences are very large. Although sexual murder dropped by 55.6 percent, respondents assume a rise of 126.2 percent. If the differences between the Police Crime Statistics and respondents' estimates are analysed, it becomes even more evident that the figures from both sources tend to converge over time. There is also evidence of ongoing decline in the difference as regards sexual murder.

Table 3.3 Trends in crime according to the Police Crime Statistics and respondents' replies (weighted data)

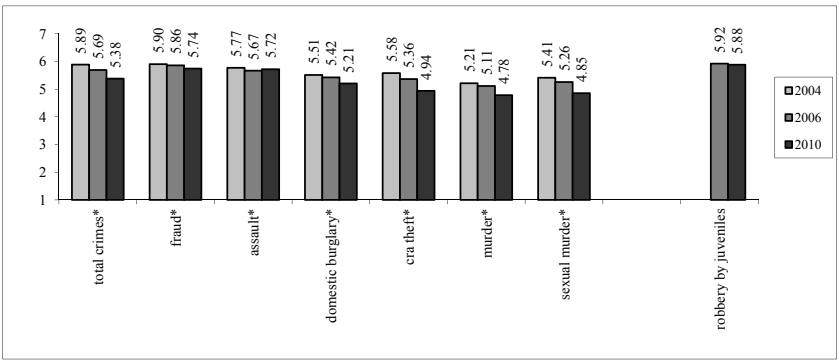
	Police Crime Statistics: Change 1999 to 2009 (%)	2010 Survey: Change 1999 to 2009 (%)	Difference between survey and Police Crime Statistics 2010	Difference between survey and Police Crime Statistics 2006	Difference between survey and Police Crime Statistics 2004
total crimes committed	-3.9	29.0	32.9	22.1	-[a]
fraud	28.7	31.8	3.1	4.2	-4.3
assault	40.3	33.5	-6.8	-16.7	3.0
domestic burglary	-23.6	42.6	66.2	95.8	94.8
car theft	-56.9	34.0	90.9	118.5	124.8
murder	-38.0	18.6	56.6	67.0	80.8
sexual murder	-55.6	126.2	181.7	257.6	343.2

[a] No difference is shown for 2004 because an erroneous comparison value was cited in the questionnaire.

Using an open-ended answer format to ask for perceptions of crime has the disadvantage that people who have difficulty in estimating large numbers shy away from giving an answer. This can be seen in the data in that (not adjusting for outliers) between 6.3 and 9.0 percent of respondents entered no figures for the individual items. For this reason, estimated crime trends are surveyed again using a closed-ended answer format. Respondents are asked to state whether they believe that over the past ten years,

various crimes have '1 – become much rarer' to '7 – become far more frequent' ('4 – remained unchanged'). A detailed comparison with the Police Crime Statistics is then no longer possible. Instead, the trend analysis shown in Figure 3.1 for the years 2004 to 2010 is of interest.[5] Here it becomes evident that in the case of fraud and assault, once again the means are higher than for other types of crime; this means that respondents often perceive a rise in such crimes. Over time, the mean for both types of crime show the least decline. The lowest mean can be seen for murder, meaning that few respondents perceive an increase. Looking at crime overall, and four specific types of crime (car theft, domestic burglary, murder and sexual murder), the averages drop significantly over the years. Thus, the findings of the analysis of open-ended answers are confirmed: While respondents tend to perceive most crimes far differently to the actual trends, the positive trends shown in the Police Crime Statistics appear to be gradually taken into account by the general public.

*Fig. 3.1 Estimated trends in various types of crime (means shown; weighted data; * differences significant at p < .05)*



In the 2006 and 2010 surveys, respondents were also asked about the trend in acts of robbery performed by juveniles. The mean for these item changed only marginally over the period in question. In 2006, 70.1 percent of respondents said that juvenile robbery had become more frequent or much more frequent (answer categories 6 and 7). In 2010, 66.5 percent

5 The share of missing values varies for the associated items between 0.4 and 7.2 percent.

still thought so. In actual fact, robbery in Germany overall and that committed by juveniles has seen an ongoing decline since 1997 (cf. Baier 2011, p. 39). This positive trend appears to go unnoticed by the general public. It is possible that a particular pessimism exists when it comes to criminal behaviour among juveniles, who are viewed with great scepticism by the adult population. Interestingly in 2010, 92.3 percent of all respondents said that juvenile robbery was slightly on the increase or strongly on the increase. In respect of murder, for instance, only just over half the respondents (51.7 percent) in 2010 said there had been a rise over the past ten years.

The estimates for individual crimes correlate relatively closely in both the open-ended and closed-ended answers, allowing for them to be combined into a single scale.[6] For a six-item scale (omitting 'total crimes committed' and 'juvenile robbery and theft'), the open-ended answers produce Cronbach's alpha values of at least 0.65, while the closed-ended answer format produces at least 0.83 for all three survey years. However, the correlations between the scale values for the open-ended and closed-ended answers are only mid-scale, varying between 0.27 (2004) and 0.34 (2006; Pearson's r). Because the portion of missing values for the closed-ended answers is smaller, this six-item scale is used when analysing the influencing factors.

3.4 Influencing factors of perceived trends in crime

Only the 2010 survey is used for the analysis of influencing factors, because this is the most comprehensive survey of all with regard to such factors. In addition, as already mentioned, focus is placed on explaining perceived trends in crime using the closed-ended answer format. The mean of the six-item scale thus provides the variable to be explained.

As independent variables, demographic factors such as gender, age and education are used. These have already been shown in Table 3.1 above. Education is not, however, presented in grouped form, but as a continuous

6 Given the differing answer formats, the items were z-standardised prior to calculating reliabilities and correlations.

variable, meaning that educational qualifications were translated into years of education.[7]

Experience of victimisation was surveyed in respect of two types of crime: theft and assault. Respondents were asked about the frequency of experience in the past five years; a delineation was only made, however, between individuals with and without experience of victimisation. Some 10 percent of respondents said they had experienced at least one episode of theft, at least three percent had experienced assault (Table 3.4).

Media consumption was surveyed in slightly more detail. Traditional media consumption via daily newspapers and television was asked about separately from online media use. Answers were combined based on the maximum value. This is illustrated in the example of tabloid newspapers: If a respondent said they read a printed tabloid daily 'once a month or less', but read an online version of a tabloid 'several times a week', the value for the online media goes in the index value 'daily tabloid newspapers'. Because this involves an index, which theoretically combines different items (in this case genre), a strong correlation between items is not a precondition for combining them. However, the proven correlations and reliabilities for the media consumption variables show a positive relationship between use of traditional media and use of online media. Because the answer choices are identical for all four media variables, it was possible to compare the means. This showed that public service news programmes are the most frequently consumed format both on television and online; national daily newspapers, by way of contrast, are read least frequently.

Authoritarian attitudes were surveyed using four statements which borrow from Hübner et al. (2008). Two of the three dimensions of the authoritarianism construct were covered (authoritarian submissiveness and authoritarian aggression), as operationalised by Altemeyer (1981). Given the high level of reliability, all four items were combined into a mean scale. The answers provided with the individual statements ranged from '1 – does not apply' to '6 – fully applies'. At 3.22, the empirical mean lies slightly below the theoretical mean of 3.5: Most respondents can thus be classified as marginally authoritarian.

7 No qualifications translated into eight years of education, Hauptschule in nine years, and so on (Abitur: 13 years, University: 18 years).

To document personal fear of crime, respondents were first asked to estimate how often they feared becoming victim of six different types of offences. Secondly, they were asked how likely they thought they might fall victim to such offences in the next twelve months. In respect of the following types of offences, the fear of and the likelihood of their occurring were estimated: domestic burglary, being stolen from in some other way, being hit or injured, being attacked and robbed, being sexually abused, coerced or raped, or being killed in a violent assault. The answer categories regarding fear ranged from '1 – never', to '5 – very often', and those for the likelihood of occurrence from '1 – highly unlikely' to '5 – very likely'. In the survey, there was a correlation of at least .53 (Pearson's r) between the scores for fear and for likelihood in regard to specific offences. A high level of fear in relation to domestic burglary thus goes hand in hand with high expectations of the likelihood of them occurring. To establish a measure for fear of crime, the two estimates (fear and likelihood) were multiplied together for each type of offence. As a result, the estimated fear for each offence can vary between 1 and 25. The mean is very low, at 4.88, allowing the assumption that strong fear of crime is only characteristic of a small percentage of respondents.

Table 3.4 Items and descriptive statistics for the model variables (weighted data; 2010 survey)

	items	**answer categories**	**mean**	**standard deviations**
perceived trends in crime	6 items (Cronbach's alpha = .83)	1 – far less frequent, 7 – far more frequent	5.21	0.85
victim of theft in the past five years	'Items, money or other forms of payment or other important documents stolen'	0 – not experienced, 1 – experienced	0.10	0.30
victim of assault in the past five years	'Intentionally hit, beaten, pushed, strangled or injured with a weapons'	0 – not experienced, 1 – experienced	0.03	0.17
daily tabloid newspapers	2 items; *Bild*/other tabloid newspapers as daily newspapers or online (r = .19)	1 – never, 6 – (almost) daily	2.29	1.72
national newspapers	2 items; nationwide newspapers as daily newspapers or online (r = .34)	1 – never, 6 – (almost) daily	2.03	1.49

	items	answer categories	mean	standard deviations
commercial television	4 items; *RTL Aktuell, 18.30/Sat 1 news* or *Pro 7 news* as television news programme or online (Cronbach's alpha = .73)	1 – never, 6 – (almost) daily	3.44	1.87
public service television	3 items; *Tagesschau* or *heute* as television news programme or online (Cronbach's alpha = .58)	1 – never, 6 – (almost) daily	4.76	1.66
authoritarian attitudes	4 items; among others – 'We should be grateful for leaders who can tell us what we shall do' (Cronbach's alpha = .78)	1 – does not apply, 6 – fully applies	3.22	1.11
fear of crime	6 items; fear of crime multiplied by likelihood estimate (victim in next 12 months) for six offences (Cronbach's alpha = .89)	1 – never and highly unlikely, 25 – very often and highly probable	4.88	2.98
subjective status	2 items; among others – 'How much of what you want can you afford to buy' (r = .54)	1 – severely disadvantaged, 4 – privileged	2.57	0.69

The last variable used in the analysis is subjective status. This can serve both as a demographic status variable and as a personal evaluation of that status. Subjective status proved to correlate with objective status, which is reflected among other things in people's income (Baier et al. 2001, p. 81). People with low incomes tend to feel more disadvantaged. At the same time, prejudice and right-wing extremism research shows that it is less the objective factors themselves and more people's subjective estimates of the factors that are of importance in the development of prejudices and stereotypes. Focus is thus placed on relative deprivation (cf. Rippl/Baier 2005, Wagern/Zick 1998). These findings have not previously been applied in the explanation of crime perceptions. It is possible that people who subjectively feel disadvantaged are also more sceptical regarding social trends. To a certain extent, they make negative social trends responsible for their own negative situation.

The findings of the OLS regressions confirm a significant relationship between subjective status and perceived trends in crime (Table 3.5): People of higher status assume a lower rise in crime rates. Other demographic factors, however, show a stronger relationship. In particular, the influence of the subjective status lessens considerably if personality factors used in Model IV are applied, meaning that it is less people's estimated status and

more the personal character traits determining that status influence perceptions of crime.

A similarly somewhat stronger mediation process can be seen in regard to education: Low educated respondents more frequently state that crime is on the rise. This is, however, partly a result of their media consumption and personality: Because these individuals tend to watch more news on commercial television, read few national daily newspapers and are more authoritarian by nature, they perceive crime trends in a more negative light.[8] Nevertheless, when controlled for these factors, the level of education (like subjective status) continues to exert an influence, indicating that these variables do also operate independently.

The mediation processes just mentioned can be made visible by integrating the variables stepwise in the Models. Most important, however, is Model IV, which includes all factors at once. Firstly, this allows the conclusion that experience as a victim of crime is irrelevant when it comes to perceptions of crime. Thus, victims are neither more frequently (nor less frequently) of the opinion that crime is on the increase in Germany. Experiences of crime may be too far in the past to still have an effect. It might be necessary to consider the frequency of victimisation, given that Skogan (1987) has already shown that the fear of crime rises with repeated experience as a victim of crime. Also, other forms of victimisation may be studied. According to Quann and Hung (2002), domestic burglary has, for example, a stronger influence on fear compared with personal assaults.

A second finding is that perceptions of crime are most strongly influenced by fear of crime. Those who fear becoming a victim of crime tend to believe that crime is on the increase. A question is whether the relationship only runs in this direction or also in reverse. No longitudinal studies exist on this topic to date.

Apart from fear of crime, perceptions of crime also appear to be influenced by authoritarianism. However, authoritarianism ranks behind the influence of the media and demographic factors. This shows that media consumption plays an important role. Of great importance is consumption of news programmes broadcast by commercial television. These appear to present crime in such a way that viewers often conclude that crime is con-

8 The years-of-education variable correlates (Pearson r) .32 with reading national newspapers, -.09 with watching news on commercial television channels, and -.15 with authoritarianism. With the exception of fear of crime (-.08), no notable relationships exist with other variables in the model.

stantly on the increase. Balanced, subjective reporting of crime would thus be desirable.

Regarding the demographic factors, there is evidence that gender is a key influencing factor in perceptions of crime. Women are more frequently of the opinion that crime is on the increase. Older respondents share the same view. This confirms the assumptions of the vulnerability theory.

In sum, it can be concluded that perceptions of crime are influenced by multiple factors. The factors used in the survey, however, can only marginally explain the variance in perceptions. The knowledge and personality factors must thus be supplemented with further influencing factors. It would be interesting to analyse how social and political discourse on specific crime cases influence people's perceptions. This discourse is likely to vary at both local and regional level, and could thus serve as an explanatory factor for individually different perceptions.

Table 3.5 Influencing factors on perceptions of trends in crime; beta coefficients from OLS regressions shown (weighted data; number of cases = 3,123)

	Model I	**Model II**	**Model III**	**Model IV**
gender: female	.15 ***	.15 ***	.14 ***	.12 ***
years of education	-.14 ***	-.14 ***	-.11 ***	-.09 ***
age in years	.10 ***	.11 ***	.12 ***	.08 ***
subjective status	-.09 ***	-.09 ***	-.08 ***	-.05 **
victim of crime in past five years: theft		-.01	-.01	-.03
victim of crime in past five years: assault		.03	.03	.01
daily tabloid newspapers			.07 ***	.05 **
national newspapers			-.06 **	-.06 **
commercial television			.13 ***	.12 ***
public service television			.02	.02
authoritarian attitudes				.08 ***
fear of crime				.19 ***
Corr. R^2	**.073**	**.073**	**.098**	**.142**

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

3.5 Perceived trends in crime and punitivity

In the introduction, it was mentioned that Windzio et al. (2007) and others see a relationship between perceptions of crime and punitivity. A study by Streng (2000, p. 429) also links an increased need for punishment with a "significantly greater sense of threat of bodily injury, and in particular greater uncertainty due to the general crime situation". Here, the survey data are used to analyse whether such a link is reconfirmed empirically and to identify the type of causal relationship that exists between perceptions and punitivity.

Attitudes towards punishment were measured in two ways in the survey. Firstly, a scale with four items was used whose reliability can be classified as satisfactory in all three survey years (Cronbach's alpha at least . 80). The wording used in the four items is as follows: 'For many offenders, stricter sentencing is the only way to stop them repeating offences', 'Many offences should receive stricter sentences than has been the case to date', 'Stricter sentences are necessary to prevent others from committing crime,' and 'Prisons should treat prisoners more harshly.' (Answer categories: '1 – does not apply', to '6 – fully applies'). The mean was calculated from the answers to the four items; for better analysis, respondents were divided into three groups.[9] The second measure for punitivity illustrates attitudes towards the death penalty. Here, respondents were asked whether they were generally in favour of or against the death penalty, with the answer choices 'for', 'against' and 'undecided'.

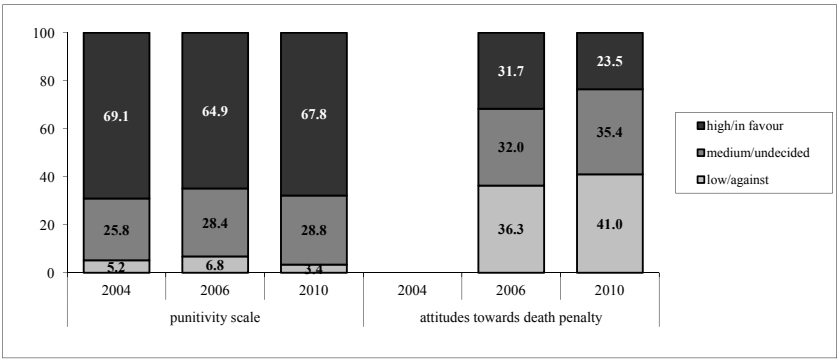
Different findings resulted for both the level of and the trends in punitivity depending on the method of measurement punitivity (Figure 3.2). Based on the answers to the four items, around two-thirds of respondents have to be classified as being in favour of very strict sentencing, with this number remaining more or less constant across all three surveys.[10] Less than a third are explicitly in favour of the death penalty in 2006; this is significantly lower than in 2010. A comparison with 2004 is not possible because attitudes to the death penalty were not part of that survey. Nonetheless, there is a positive correlation between the two punitivity

9 Respondents scoring a mean of 1.0 to 2.67 are classified as least punitive, those ranging from 2.67 to 4.34 as moderately punitive, and those scoring between 4.34 and 6.00 as highly punitive.

10 Looking at the averages rather than the percentages, no decline in punitivity is evident (2004; 4.77; 2006: 4.62; 2010: 4.74).

scores, with the 'undecided' and 'against' groups combined when calculating the correlation. The correlation (Pearson's r) was .33 in 2006 and . 31 in 2010.

Fig. 3.2 Punitivity over time (in percent; weighted data)



The correlations with the six items on the scale for perceived crime trends (closed answer format) are very similar, as shown in Table 3.6. This applies both when comparing the two attitude scores and when comparing the estimated trends in the different offences. The correlations with attitudes to the death penalty are somewhat lower than those for the punitivity scale; they are, however, all in the same direction as on the scale and are also significant. Assumed trends in fraud correlate slightly less well with punitivity levels than for other offences; the differences are not significant, however.

Table 3.6 Correlations (Pearson's r) between perceived trends in crime and punitivity (2010 survey; weighted data; all correlations significant at $p < .05$)

	punitivity scale	attitudes towards death penalty
fraud	.19	.10
assault	.25	.16
domestic burglary	.24	.12
car theft	.21	.13
murder	.25	.15
sexual murder	.23	.16

Given the observed correlations, it can be assumed that a significant relationship exists between perceived trends in crime and punitivity. Those who believe that crime is on the rise (regardless of which type of crime is involved), would like to see harsher treatment of offenders. Because the type of crime appears to be largely irrelevant, the relationship can be verified using the overall scale (see Table 3.7). The correlation is then .31, meaning that almost 10 percent of the variance in punitivity can be explained by perceived trends in crime. Controlling for other factors, this relationship is hardly weakened at all.[11] That a relationship exists cannot, therefore, be apportioned to personality traits or experiences as a victim of crime. Model II in Table 3.7 also shows that authoritarian attitudes are almost an equally strong predictor of punitive attitudes as perceived trends in crime. Media consumption continues to play an important role: People who frequently read tabloid newspapers or watch news programmes on commercial television call for stricter sentencing than those who inform themselves by reading national newspapers. Experience as a victim of crime has again no significant influence. Experience of assault actually reduces punitivity slightly. Higher education levels protect against punitive attitudes, while age and subjective status are irrelevant. Of particular interest is that women are less punitive. When it comes to gender, contradictory relationships are evident: Women tend to perceive a higher rate of crime, which leads to greater punitivity; at the same time, women are generally less punitive. Women's perceptions and attitudes are thus less balanced.

The findings underline that there is a stable relationship between perceived crime trends and punitivity which is not mediated by other factors. Nonetheless, the cause-effect relationship in the previous analyses remains unexplained because it was based on a cross-sectional survey conducted in 2010. The causal relationship between the two factors can additionally be investigated using the longitudinal studies from 2004 and 2006. For this purpose, a cross-lagged panel model is calculated for the 1,206 longitudinal cases in the two years using the Mplus 6.11 program as shown in Figure 3.3.

11 Looking at attitudes to the death penalty rather than the punitivity scale, the results do not change: The beta coefficient is .18 in Model I and .17 in Model II.

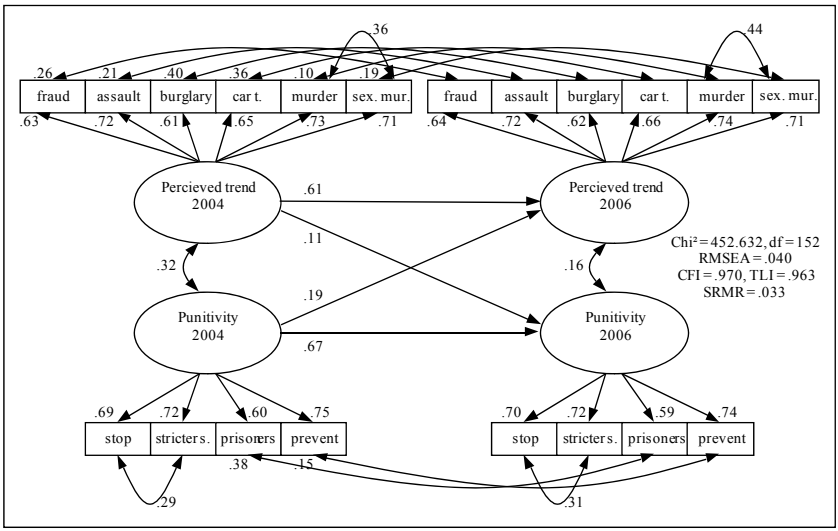
Table 3.7 Influencing factors for punitivity (scale); beta coefficients from OLS regressions shown (2010 survey; weighted data; number of cases = 3,114)

	Model I	Model II
perceived trends in crime	.31 ***	.24 ***
gender: female		-.05 **
years of education		-.08 ***
age in years		-.03
subjective status		-.02
victim of crime in past five years: theft		-.00
victim of crime in past five years: assault		-.03 *
daily tabloid newspapers		.09 ***
national newspapers		-.07 ***
commercial television		.06 *
public service television		-.03
authoritarian attitudes		.23 ***
fear of crime		.05 **
Corr. R^2	**.098**	**.193**

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

The models incorporate the constructs of perceived crime trends (closed-ended answer format) and punitivity (scale) for the two survey periods as latent variables. The factor loadings for the individual items can be classified as satisfactory across the board ($\lambda \geq .59$). Between the same items, error correlations are permitted over the years when they were significant (cf. Geiser 2010, p. 99ff). Also, for both survey periods a further significant error correlation was accepted per construct (between murder and sexual murder, and between the items 'For many offenders, stricter sentencing is the only way to stop them repeating offences' and 'Many offences should receive stricter sentences than has been the case to date.' The cause of the error correlation in the first instance may be that on both occasions, the issue is murder and when answering, respondents cognitively activate certain concepts of murder that has no relation to trends in crime.

Fig. 3.3 Cross-lagged panel model for estimated trends in crime and punitivity (number of cases = 1206; all paths/correlations significant at p < .01)



Both the perceived trends in crime and punitivity are stable over time. The coefficients (γ) varying between 0 and 1 or -1 attain a value of .61 or .67. More important, however, are the cross paths. It can be shown that at .19, the path from punitivity in 2004 to perceived trends in crime in 2006 is stronger than the reverse path (.11). Punitivity therefore appears to determine perceptions more than the other way around. A significance test shows, however, that the two paths do not significantly differ.[12] There is thus no reason to assume a clear causal relationship. The two factors determine each other to a rather same extent: Perceived trends in crime lead to greater punitivity and people who are more punitive perceive stronger trends in crime. Such perceptions can thus indeed be influential in the way proposed by Windzio et al. (2007), underscoring the need to focus on those perceptions and their influencing factors in social science research.

12 The significance test is performed by comparing two models. In the original model, the parameters are freely estimated, while in the restrictive model it is assumed that paths which cross adopt the same value. Because the more restrictive model shows no worser fit (Chi² = 453.482, df = 153), it can be assumed that the cross paths do not differ significantly.

3.6 Conclusion and discussion

The findings presented in this paper can be consolidated into three key results. Firstly, people over-estimate both the prevalence of and trends in crime. Negative perceptions dominate with regard to this topic, and they are particularly negative when it comes to estimate violent offences committed by juveniles.

Secondly, that such negative perceptions of crime are sustained is partly due to the media. News reporting in commercial television is especially worthy of criticism. Personal experience as a victim on the other side does not influence crime perceptions. Instead of direct experience of crime, it is indirect experience gained from the media that shapes people's perceptions of crime.

These perceptions have consequences. To an extent, the media create a reality that forms the basis for their reporting. If a rise in crime is perceived, this can lead to calls for stricter sentencing. If this becomes realty, then rather than a decline, a rise in crime may well be expected, which is then suitably reported in the media. The achieved results show, however, that it would seem not appropriate to demonise the media (cf. Pfeiffer 2004). Media consumption is only one influencing factor in perceptions of crime; and perceptions of crime are only one influencing factor in punitivity. Punitivity in turn influences perceptions of crime, as shown in the longitudinal studies.

Some findings from the analyses presented here have been insufficiently discussed to date. The evaluations of perceptions of crime have shown that, when it comes to the most observed offences, since 2004 perceptions have gradually adjusted to match actual trends in crime –especially for offences that are on the decline in Germany. The question which factors are responsible for that that trend is addressed by Baier at al. (2011 p. 147ff), who show that the percentage of people who were a victim of crime offences is dropping significantly. But because experience as a victim of crime has no relevance as an influencing factor of perceptions of crime, this trend fails to provide an adequate explanation. The situation is different regarding the findings on media consumption: The number of people who watch news programmes on commercial television or who read tabloid newspapers has almost halved over the six-year period. Also, there has been a rise in average education levels and a drop in the fear of crime. These trends provide an – albeit non-exhaustive – explanation for the changes in perceptions of crime.

One contradiction remains: The factors cited also influence punitivity which, at least as measured using the four-item scale, has remained high in recent years. Trends in punitivity have thus become decoupled from trends in other crime-related perceptions and attitudes. One possible hypothesis is that these trends reflect changes in media reporting. It is now the norm for certain criminal cases to be covered in all newspapers and programmes – even quality programmes and the broadsheet press are unable to ignore such cases. In such reporting, the public is told that the case in question is an isolated event, yet the focus on both the victims' suffering and that of their families helps keep punitivity levels high because people conclude that harsh sentencing is the only way to deal with the offenders. Victims are idealised as "likeable, weak and innocent", and "children make ideal victims" (Hestermann 2010, p. 199). When the media are 43 times more likely to report about children becoming victims of violence compared with older victims of violence, and when sexual murder (especially involving children) is ten times more likely to be reported than other types of murder (Hestermann 2010, p. 196 ff), it should be clear to the general public that such offences occur only rarely. But the offences are so monstrous that those who have committed them are not permitted a second chance – or any opportunity for resocialisation. Isolated cases thus heavily influence perceptions of offenders in general, and thus of how they should be punished.

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