

CHAPTER 1

Searching for Offenders' Memories of Violent Crimes

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Some 15 years ago, Professor John Yuille notified the first author about a book entitled *The Violent Years of Maggie MacDonald* (Gould & MacDonald, 1987). In the mid-sixties, Margaret MacDonald, a 33-year-old citizen of Toronto, stabbed her abusive common-law husband to death. Margaret claimed to be amnesic for the crime. She claimed to have no memory whatsoever of the act of killing, but remembered events immediately before and after the killing (Gould & MacDonald, 1987; Porter, Birt, Yuille & Herve, 2001). The case attracted enormous media attention, and it was revealed that Margaret had been abandoned and abused as a child, experienced life as a sex-slave, prostitute, alcoholic and drug addict, and had been exposed to violence throughout her life. Due to her history of longstanding abuse, Margaret herself and the women's movement in Canada regarded her as a victim rather than a perpetrator. Eventually, she was acquitted of murder and received a probation sentence. Less than a year later, she killed her second husband and was sentenced to life imprisonment.

Among laypeople, a large majority believe that it is perfectly possible for an offender to develop complete amnesia for a crime and that, in certain types of homicide, dissociative amnesia is a highly plausible scenario. Mental health professionals who appear as expert witnesses in such cases often assume that this type of memory loss is the joint effect of strong emotions and excessive drug or alcohol use. The question is whether there is an empirical and theoretical foundation for such assumptions. The outcome of Maggie's case reveals the importance of, and need for, a more thorough understanding of offenders' memories and shows that a naive understanding of violent behaviour and the effects of crime-related trauma on memory may result in immense personal, social and financial costs to society. The more we learn about the individuals who commit violent crimes, the better society can investigate such crimes and assess the likelihood that a violent criminal will re-offend.

The case of Margaret MacDonald taps into many of the theoretical and applied issues covered in the present volume, such as understanding the relationship between emotion/trauma and memory, post-traumatic stress disorder, crime-related amnesia, offender characteristics, forensic interviewing, detection of deception, development of criminal behaviour, recidivism and treatment prognosis. In this introductory chapter, we will discuss some of these issues and, at the same time, outline the content of the other chapters in this volume.

EFFECTS OF EMOTION AND TRAUMA ON MEMORY

Understanding the effects of trauma on memory is crucial if we are to evaluate offenders' accounts of violent events. During the past decades, an interest in understanding the relationship between emotion and memory has gradually increased among researchers and practitioners in diverse disciplines such as the cognitive, neurological, clinical and forensic sciences. For both theoretical and applied reasons, the need for scientific research on this issue has been particularly evident in forensic psychology. Numerous studies have been conducted on arousal and memory, emotional stress and memory, eyewitness memory, and trauma and amnesia (see Christianson, 1992a, b; Reisberg & Heuer, 2004, for reviews). These studies have shown that there is no single effect of trauma on memory, but instead a variety of patterns, where memories for details vary in both amount and accuracy. As pointed out in the comprehensive model presented by Hervé, Cooper and Yuille in

this volume (Chapter 2), there are a variety of predisposing, precipitating and perpetuating biopsychosocial factors that interact to guide an offender's memory.

The vast majority of existing research on memory and emotion concerns non-violent settings, and with respect to violent settings, the research in forensic psychology has focused on bystander witnesses and victims of crime. Only a few studies have focused on offenders' memories, and the topics of trauma and offenders' memories have most often been studied separately. Moreover, although it is not unusual for offenders to develop post-traumatic stress disorder (PTSD) symptoms in response to their own crimes (Pollock, 1999, see also Evans & Mezey Chapter 4, this volume), the trauma literature and international conferences on psycho-traumatology seldom include research on trauma and PTSD in offenders. This limited body of research on trauma and memory in offenders is partly due to the interests of researchers and partly to practical obstacles. First and foremost, clinicians and other practitioners in the field of psychological trauma are focused on victims of accidents, catastrophes and crime. Our understanding – based on discussions with professionals engaged in clinical practice and research regarding, for example, rape victims, battered women, children who witnessed domestic violence or been beaten or subjected to sustained sexual abuse – is that professionals' empathy with the victims more or less excludes any mental involvement in the offenders' reactions and possible trauma development. That is, as a scientist, you either have the victim or the perpetrator perspective, and because trauma is inherently associated with victims, few scholars with an interest in psychological trauma end up studying perpetrators. Thus, among the several rationales for writing this book is the need for a compiled source of knowledge regarding the effects of emotion and trauma on offenders' memory of violent crimes.

It is also important to acknowledge some of the methodological and experiential differences associated with studying the relationship between memory and emotion in offenders as opposed to victims and bystander witnesses. As pointed out by Porter, Woodworth and Doucette in this volume (Chapter 5), there are several practical, methodological and ethical obstacles to conducting research on offenders. These obstacles concern collecting any in-person data from incarcerated offenders or problems associated with offenders as a vulnerable population, problems in advertising the study or encouraging participation in the absence of monetary gain, potential self-selection bias, the need for minimising the presence of security staff during the research interview (to maintain anonymity/confidentiality),

and ensuring the safety of interviewers. The problem of credibility is always present in forensic settings, but it is reasonable to assume that guilty suspects and perpetrators may choose to withhold or distort information about their experiences to a higher degree than do victims and witnesses, even in a confidential research interview.

EMOTIONS IN REACTIVE AND INSTRUMENTAL OFFENDERS

It is important to understand how emotional reactions in response to crime can vary among victims, bystander witnesses and offenders. While victims and bystander witnesses almost exclusively experience negative emotions in response to violent crimes, perpetrators' experiences may vary from trauma to extreme pleasure between and during crimes. Some offenders experience extremely negative emotions during and after criminal acts, and this is especially significant among offenders who have committed *reactive* violent crimes as opposed to *instrumental* violent crimes (Dodge, 1991; Pollock, 1999). In reactive homicide, the violence leading to the death of another person can be construed as some sort of impulsive response. The attack is spontaneous, immediate and emotion driven. Victim provocation is evident, but there is no apparent external goal other than to harm the victim following a provocation/conflict (e.g., rage and despair associated with crimes of passion). A purely reactive homicide is an immediate, rapid and powerful affective response (e.g., manslaughter). However, in some cases, the crime may contain some degree of planning. For example, the offender may leave the scene to get a weapon and return for revenge, but without a 'cooling off' period between provocation and attack. Victims are typically a spouse or someone well known to the offender. The offender experiences a high level of angry arousal at the time of the violent event. The fact that reactive homicide tends to evoke extremely negative feelings in perpetrators is illustrated by statistics showing that 58% of them develop PTSD symptoms in response to their own crimes (Pollock, 1999). Of course, it can not be ruled out that at least some of these perpetrators fake PTSD symptoms (e.g., Rosen & Phillips, 2004). Nevertheless, PTSD symptoms can be found among offenders and are an under-researched theme.

In instrumental homicide, the violence leading to death is planned and proactive. A homicide is purely instrumental when the murder is clearly goal directed (e.g., a means to fulfil sexual or material needs or to experience a thrill), with no evidence of an immediate emotional or situational provocation, and when the victim is of little personal significance to the offender (e.g., robberies, rape or sexual

homicide). Self-reported lack of arousal and anger during the offence are common in this group of offenders. Thirty-four per cent of instrumental homicide offenders developed PTSD symptoms subsequent to their crime, which is fewer compared to reactive homicide offenders (Pollock, 1999), but still a significant number. However, many instrumental offenders may also experience neutral or even positive emotions before, during and after the crime, and some phases of the crime may also be associated with negative emotions, while other phases are associated with positive emotions. For example, a rape may originally have been a planned event (i.e., an instrumental crime). However, during its execution, an unexpected complication (e.g., victim resistance) may have created a reactive situation such that the rapist became so aggravated by the victim's response and his own inability to dominate and control the victim that he felt compelled to kill the victim. Thus, some components of a crime event may be instrumental and others reactive (cf., instrumental–reactive violence), and this may result in differential memory for different parts of an event. The analysis of a memory (e.g., its level of detail, affect, etc.), accordingly, must be coordinated with the instrumental/reactive aspect of each part of the event. Evidently, the instrumental–reactive dichotomy is not always easy to make (see for critical review, Bushman & Anderson, 2001), but we do believe that it helps with conceptualising links between types of violence and their psychological consequences.

SEARCHING FOR OFFENDERS' MEMORIES ALONG PATHS TO VIOLENT CRIME

In order to extend our distinction between instrumental and reactive violence, we may break down the commission of violence into even smaller parts. Violence is a process of discrete, sequential and recognizable behaviours, a process that can be envisioned as a path leading from the initial grievance to the ultimate violence (Calhoun & Weston, 2003). According to Calhoun and Weston, individuals of violent intent 'move from developing the idea for committing violence through various individual steps leading to the violent act' (p. 57). These actions are only noticeable if we knew where to look and what to look for. In their model, the authors discuss a method of assessing threat, as threat is frequently part of an escalating spiral leading to violence. Seeing the requisite behaviours in their entirety and in sequence further enhances the threat manager's ability to identify potential problems, assess the actual degree of risk, and decide on the best strategy for managing that risk. A number of telltale signs

in each step may help an investigator to identify possible actions. We use Calhoun and Weston's model of the path to intended violence to understand and analyse steps of discrete, sequential and recognisable *homicide* actions, which should be possible for the offender to recall. Assessing homicide offenders' memories of these steps provides insight into their motives and intents.¹ The first step, *Grievance*, which always must exist, concerns, for example, feelings of anger, frustration, jealousy, revenge, sense of loss, injustice or sense of mission, or any other reason for being aggravated or wronged in some way. The next step, *Ideation*, is about deciding to use, consciously selecting, and accepting the use of violence to correct the wrong or to fulfil sexual fantasies or material needs or to experience a thrill. As examples of signals of violence, some offenders discuss their fantasies, needs or thoughts with others, some identify with other assailants, and some fixate on violence in general or specific acts of violence and regard violence as the only alternative to solving their problem. The third step includes *Research and Planning*. That is, once an individual decides on violence, he or she must do some planning regarding the best way to execute the assault (where to find the target, type of weapon, etc.). As discussed by Calhoun and Weston, research and planning may be extensive and elaborate, but not every case involves extensive planning or research, which was obvious in John Hinckley's attempt to assassinate President Ronald Reagan: Hinckley's decision was made the very same morning, when he learned from the *Washington Post* that Reagan was scheduled to make a luncheon speech at the Washington Hilton, which was not far from his hotel. Typical signs of research/planning are information gathering, target research (daily activities of the target), suspicious inquires (e.g., among the target's relatives or fellow workers) and target surveillance.

After the completion of research and planning, the offender moves on to the fourth step, the stage of *Preparations*. Preparations are activities (e.g., practising firing a gun) that can be disguised, carried out in secret, but that are most often noticeable and often involves interaction with others. Common preparation activities are assembling equipment, acquiring a weapon, arranging for transportation, choosing clothing (costume), etc. Because the offender knows that the path to violence has an end point, he or she can prepare for achieving that end (e.g., planning for suicide, leaving written messages to various family members, or making out a last will and testament).

¹ The steps described in this chapter are a mixture of descriptions from Calhoun and Weston (2003) and our own elaborations made to suit the actions of homicide offenders.

In the fifth step, *Breach*, the offender must position him/herself in proximity to the target. Getting close can be as simple as strolling the streets at night as potential victims are heading back home from an evening downtown, or driving an unregistered, illegal taxi or delivering newspapers early in the morning. Getting close to a victim is both noticeable and potentially preventable, and it requires considerable effort by the offender to avoid detection. The sixth and final step of the Calhoun and Weston model is the *Attack*. Taking this step requires considerable commitment and nerve. As discussed by Calhoun and Weston, a number of intended assassins did not become actual assassins because the assassination simply proved to be too difficult. In interviews with several rape and homicide offenders, the first author has learned that the attack itself often deviates from what was planned or is aborted due to the behaviour of the victim or surrounding circumstances.

As pointed out by Calhoun and Weston (2003), 'Since the process resembles a path, the perpetrator can move in either direction along it, reaching one level and then moving forward or retreating to a previous level. Time means nothing along the path. Traversing it can take months, even years, or it can be covered in hours, even minutes' (p. 58). While the description above concerns instrumental violence, the model may also be applicable to reactive violence.² However, in reactive violence, the two steps of 'research/planning' and 'preparation' are not involved, that is, the offender moves directly from 'ideation' to 'action', and for reactive homicide offenders, it is often but a small step from idea to action.

In addition to the translation of Calhoun and Weston's six steps above, the present authors suggest that homicide offenders may also proceed into two additional steps or recallable actions, such as actions upon the victim's body post-mortem and disposal of the body. We call step seven *Realisation*. After the attack, and when the perpetrator has incapacitated or killed his/her victim, thereby gaining control, he/she can, if desired, act out his/her fantasies. These may be sexual and/or violent in nature, and for some perpetrators they can be likened to a constant companion along the path leading to the violent act. In the perpetrator's mind, thoughts surrounding the violent act are refined to the point of perfection. If the location and situation allow (i.e., no witnesses present), the perpetrator can act out

² The corresponding term for reactive violence in Calhoun and Weston's (2003) model is 'impromptu violence', which is defined as a spontaneous, unplanned usually emotional, violent outburst spawned by the circumstances of the moment.

his/her fantasies through sexual acts, insertion of objects into bodily orifices or by mutilating or damaging the victim's body.

Post-crime Behaviour is our term for the eighth and final step. The perpetrator's behaviour following the crime is commonly aimed at avoiding discovery. For example, the dead body may be moved, the crime scene cleaned and the weapon and other technical evidence removed from the scene or destroyed. It happens that the crime scene and the body are arranged so as to mislead (so-called 'staging') and make the crime appear to be something else, e.g., an accident. Manipulation and moving of the body may also be part of the perpetrator's fantasy. Perhaps he/she wishes the discovery of the body to be shocking. This can be achieved by, e.g., placing the naked body in a public place and in an obscene posture, with legs spread open.

Just as analyses of the perpetrator's behaviour in the first six steps can help us identify the motives and driving forces underlying the crime, post-crime behaviour and strategies can provide information on the perpetrator and his/her possible personality disorders and mental capacity. For example, efficient and rational post-crime behaviour may indicate that the perpetrator's mental capacity is sound.

As previously mentioned, the model is also applicable to perpetrators who have committed reactive acts of violence, thus perpetrators for whom the step between thought and action is probably short. These steps may even converge into the same sequence. Certain steps in the process may not occur, and this also applies to our proposed step seven, *Realisation*. Step eight, *Post-crime Behaviour*, is probably found to varying extents in reactive perpetrators as well. Active post-crime behaviour is rational behaviour, which would seem to require some degree of presence of mind on the part of the perpetrator. In cases where the perpetrator of a reactive crime claims memory loss, the prerequisites for recovering memory for step eight would seem to be better than those for recovering memory for the previous, often more impulsive and emotional steps.

In searching for offenders' memories, it is important to focus not only on the content, but also, as pointed out by Evans and Mezey in this volume (Chapter 4), to look at the different forms of memories of violent crime (e.g., amnesia versus intrusive memories), the different aspects of the violent event at different times of recall, and memories at different phases of the crime (e.g., the type of cognitive processing preceding, during and after the assault). The path of violence presented above may be useful in analysing and assessing offenders' memories of violent crime in more detail. For example, a homicide offender who claims amnesia for his/her crime should be asked about each step along the path to the homicidal violence. We consider that it is highly

unlikely for an offender to be genuinely amnesic for all steps in the path to the intended or reactive violence (see also Chapter 7 by Merckelbach & Christianson, this volume).

THE REACTIVE VERSUS INSTRUMENTAL DICHOTOMY: THEORETICAL AND PRACTICAL ASPECTS

Although a distinction between reactive and instrumental homicide may oversimplify a highly complex behaviour with multiple motivations and manifestations (Bushman & Anderson, 2001), this distinction is relevant for several theoretical and practical reasons. First, it is often possible to classify with some degree of accuracy whether homicidal behaviour is predominantly reactive or instrumental. Second, by using the reactive versus instrumental dichotomy, various psychological characteristics of offenders can be predicted, such as types of emotions in different types of violence, patterns of memory responses, crime motivation, focus of attention and personality disorder. Third, knowledge about an offender obtained by studying crime scene characteristics and types of crime will generate the foundation for interrogation strategies. That is, the systematic analysis of offenders' memories of impulsive (reactive) or planned (instrumental) crimes might help criminal investigators in selecting strategies for interviewing perpetrators who either confess, deny having committed the crime or claim memory loss.

Regarding offender characteristics, Woodworth and Porter (2002) found that 27% of their sample of 125 Canadian offenders could be classified as psychopaths. Over 90% of the psychopaths were instrumental offenders. Because psychopaths would be expected to exhibit a general lack of affective interference and absence of empathy and remorse, and because of the pre-homicide fantasies often found among psychopaths, negative emotional reactions are less likely to occur in this group of offenders. Naturally, antisocial and psychopathic offenders may appear among those who commit violence that is classified as instrumental. (See also van Oorsouw & Cima, Chapter 8, this volume, regarding personality characteristics of individuals claiming amnesia for their crimes.)

The reactive and instrumental types of violence may also be associated differently with the emotional experiences of guilt and shame, as discussed by Santtila and Pakkanen in this volume (Chapter 13). Because the victim is often important in reactive offences, guilt is a likely emotion, which motivates reparative action including confessing. Among instrumental offenders, the victims themselves are not important, but are used in order to satisfy offenders' needs and,

consequently, feelings of guilt are less likely. According to Santtila and Pakkanen, the instrumental offender is more likely to feel shame, which has the effect of decreasing the motivation for revealing what has happened and confessing to the crime.

The dichotomy between reactive and instrumental violence may also provide hints about the offender's focus of attention during the crime, that is, whether it is internal (directed towards one's own emotions) or external (directed towards event-related details) at the time of the crime. Cooper and Yuille (Chapter 3; but see also Hervé, Cooper & Yuille, Chapter 2, both in this volume) argue that the affect associated with reactive violence is likely to result from internal (e.g., subjective) resources, because the motivation for reactive violence is, by definition, internal (e.g., rage, anger). In instrumental violence, on the other hand, the focus of attention is often directed to external (e.g., event-related) sources, partly due to external motivation of instrumental violence (e.g., financial or a special type of victim). Consequently, if the offender has focused on the source of affect during a reactive act of violence (e.g., an internal source such as rage), he/she would likely have relatively poorer memory for the details of the event as opposed to an instrumental offender, who would more likely focus on the event itself.

Because there is a high degree of premeditation and preparation in instrumental homicides, one may expect that such offences would be easier for the offender to remember. In cases of sexual murder – especially in offenders who plan to commit subsequent homicides – the victim's actions and reactions and sexual components, etc. are often compared to a script fantasy that foregoes the murder. Premeditated fantasies and the act of murder are replayed over and over in the offender's mind, and the more the offender goes over the event in his/her mind (i.e., elaborative rehearsal; Craik & Lockhart, 1972), the more firmly the event will be stored. However, in reporting about their offences, instrumental offenders, and especially psychopaths, are more likely than other offenders to 're-frame' the level of instrumentality involved (i.e., exaggerate the reactivity). In comparing official reports and offenders' self-reported descriptions, Porter and Woodworth (2006) found that psychopaths were more likely to commit instrumental (premeditated, goal-driven) homicides. Interestingly, the instrumentality difference disappeared when offenders' narratives were examined, such that psychopaths exaggerated the reactivity of their violence, by minimising the degree of planning/premeditation and exaggerating the victim's role in, as well as the spontaneity of the offence (see also Porter, Woodworth & Doucette, Chapter 5, this volume).

Furthermore, instrumental offenders are expected to experience a more optimal level of intra-crime arousal, which facilitates remembering the offence. On the other hand, a state of extreme arousal (anger and rage) among reactive offenders may result in dissociative amnesia for their criminal behaviour. Whereas genuine dissociative memory reactions (amnesia) are unlikely to occur in instrumental offenders, several authors have argued that dissociative amnesia is typical of crimes that are unplanned, involve a significant other and are committed in a state of strong agitation (e.g., Kopelman, 1995; Loewenstein, 1991). Thus, dissociative amnesia would typically occur in the context of, what has been termed here and elsewhere, 'reactive homicide' (Pollock, 1999; see above). The underlying idea is that extreme levels of arousal during the crime may hamper memory at a later point in time. Thus, a failure in retrieval processes would underlie dissociative amnesia: the offender, who eventually has come to his/her senses, finds it impossible to access memories stored during a moment of turbulence. A term often used in the Anglo-Saxon literature to describe amnesia as a consequence of strong emotions (e.g., rage) is 'red-out'. In the words of Swihart, Yuille and Porter (1999): 'Apparently, an individual can get so angry with his/her intimate partner that s/he can severely beat or kill that partner and then not remember doing so: that is, they can experience a red-out resulting in circumscribed amnesia' (p. 200). Merckelbach and Christianson (Chapter 7, this volume) discuss other more recent theoretical assumptions that apply to dissociative amnesia in offenders and the way in which extreme emotions/traumatic memories affect memory encoding.

CLAIMS OF CRIME-RELATED AMNESIA

Although there are cases in which emotional events, especially highly arousing and traumatic ones, are poorly retained—for example, victims of rape, torture, sexual abuse and war, who have experienced extreme states of negative emotions possibly in combination with brain damage, may show a temporary inability to remember a traumatic event – these cases are rare (e.g., Christianson & Engelberg, 1999; Christianson & Nilsson, 1989; McNally, 2005; Terr, 1990; van der Kolk & Fisler, 1995). Findings from both real-life studies and experimental studies on non-criminal witnesses suggest that certain characteristics of negative emotional events are perceived and retained in an automatic fashion. In particular, experimental research reveals that there is a superior advantage for the detection and recognition of stimuli indicative of threatening situations (Christianson, 1997). A study by Christianson,

Loftus, Hoffman and Loftus (1991) showed that the level of memory performance for subjects presented with emotional stimuli (involving, e.g., blood) at very short exposure durations (180 ms) was almost identical to that found for subjects presented with the same emotional stimuli at longer exposure durations. Another finding is that the level of recognition is higher for unpleasant stimuli (pictures of victims of crime, traffic accidents, war, malady, famine) as compared to neutral scenes (people in everyday situations) and positive stimuli (e.g., sexual pictures of nudes in very sensual summer scenes) (Christianson & Fällman, 1990). Neuropsychological studies suggest that individuals are able to process fear-related visual stimuli in the absence of attention because emotional stimuli activate the amygdala, even when individuals are unaware that the information has been presented (e.g., Vuilleumier, Armony, Clarke, et al., 2002).

Some research also suggests that we are predisposed to retain certain characteristics of emotional information that had a survival value in earlier stages of evolution. In line with Öhman (1979, 1991), we argue that when people are exposed to a stressful event, critical stimulus features, such as bloodstains, may be extracted and evaluated as emotionally significant and thus activate an orienting response. Due to attention-demanding stimulus characteristics and personal involvement, controlled conceptual resources are subsequently allocated for further analysis of the stimulus. In short, critical details will be extracted by pre-attentive mechanisms and controlled processes will subsequently be allocated to the emotionally relevant information. This mode of processing would hypothetically promote memory for central detail information, but impair memory for peripheral details that are irrelevant and/or spatially peripheral to the emotion-eliciting event. In support of this assumption, there is the main finding, from both laboratory studies and studies of real-life events, that emotions improve memory for central details, or the gist of an event, but at the same time undermine memory for peripheral aspects of the event (see Christianson, 1992; Reisberg & Heuer, 2004, for reviews).

In most laboratory studies on witnesses of violent content, emotion has generally been evoked by some salient visual stimulus (e.g., facial injuries, the sight of a slashed throat, a child's bleeding eyeball or wounded legs). It may be, then, that these 'attention magnets' (Reisberg & Heuer, 2004) and not the emotional arousal have been the cause of the observed narrowing of memory. In examining memory for thematically-induced arousal in either laboratory events or in naturally-occurring emotional memories, results indicate that emotionality improves memory for all aspects of these events, with no memory narrowing (Laney, Campbell, Heuer & Reisberg, 2004; Laney,

Heuer & Reisberg, 2003). Although caution is appropriate when applying laboratory results to real-life events in general and to offenders in particular, there are indications of selective focusing in real-life situations, especially in extreme cases of negative emotional impact, for example shooting situations (Karlsson & Christianson, 2003; 2006), rape cases (Christianson & Nilsson, 1989), and in cases of repeated child sexual abuse (Christianson & Lindholm, 1998; Terr, 1990). Some recent experimental research offers further support for the idea that extremely affective details may temporarily interfere with subsequent information, a phenomenon termed emotional blindness or attentional rubbernecking (Most, Chun, Widders & Zald, in press). Obviously, such anterograde effects only occur to the extent that individuals find the material genuinely emotional. Considering instrumental offenders as discussed above, one would expect that their external focus along with their more optimal level of arousal would promote memory for certain critical details of the crime event.

In comparison with victims of violent crime or bystander witnesses, it is much more common that suspects or perpetrators of violent crimes display difficulties in remembering emotion-laden events (Christianson & Merckelbach, 2004; Schacter, 1986; Taylor & Kopelman, 1984). In fact, claims of amnesia are often made in the context of murder or manslaughter cases (25–40% of those who are found guilty of homicide claim to be amnesic or to have a complete memory loss, Schacter, 1986; Taylor & Kopelman, 1984). There are, however, other crime categories in which claims of amnesia do occur, for example in cases of sexual crime (Bourget & Bradford, 1995), domestic violence (Swihart, Yuille & Porter, 1999) and fraud (Kopelman, Green, Guinan, Lewis & Stanhope, 1994; see Christianson & Merckelbach, 2004 for a review), and the large majority of these claims are circumscribed to the crime itself (Bradford & Smith, 1979).

As discussed by Jelicic and Merckelbach in this volume (Chapter 9), there are different ways to explain memory loss for criminal offences. A common explanation is that crimes committed in a state of altered consciousness, such as in extreme rage, anger or psychosis, are stored in an exceptional context (Porter, Birt, Yuille & Hervé, 2001). Later, when the offender has returned to a more calm or normal state, retrieval of crime-related memories will be obscured due to the discrepancy between the internal state at encoding and that at retrieval and be largely inaccessible (cf., so-called red-outs and dissociative amnesia as discussed earlier). Crime-related amnesia may also be related to problems at encoding and storage due to intoxication, head injuries and brain diseases (cf., organic amnesia). For example, a large proportion of violent offenders are intoxicated owing to alcohol and/or drug

use, which undermines the ability to encode and consolidate detailed information in memory. Brain dysfunction due to organic causes is discussed at further length in the chapter by Markowitsch and Kalbe in this volume (Chapter 6), but see also the case reports presented by Merckelbach and Christianson (Chapter 7). Still another explanation pertains to failures in meta-memory, i.e., some offenders may truly believe they are amnesic while in fact they are not (see Chapter 8 by van Oorsouw & Cima, this volume, for a thorough discussion, but see also below).

An alternative explanation, which is in contrast to the previous explanations for memory loss in offenders, is that offenders are deliberately simulating their memory problems. That is, amnesia may be used as a calculated defence strategy, partly to avoid or reduce responsibility and punishment (obstruct police investigation), but also to avoid emotional memories of the crime. These strategies prevent the offender from working through the factors underlying his/her homicidal behaviour. Such memory avoidance behaviour might have a far-reaching impact on recidivism, which is illustrated by the following case. A young man (AD) left his hometown by car, and after several hours of driving, he stopped to call his parents-in-law to tell them that something terrible had happened at their daughter's home and that they must go there. The parents soon found their daughter stabbed to death in her apartment. During the police investigation, AD claimed to have no memory of what had happened to his fiancé. He could not provide any details, he could not deny or confess to the crime. He served a sentence of eight years in prison and claimed to be amnesic throughout that period. After being released, he soon moved in with a woman, who was found shortly thereafter strangled to death in his apartment. As in the first murder, AD claimed to be amnesic. In the second investigation, however, an interrogator who used an empathetic style (characterised by cooperation, an obliging manner, a positive attitude, helpfulness and personal interest in his case) interviewed him. Owing to this positive contact, AD revealed that he had remembered both acts of killing from the beginning. As to his motive for simulating amnesia, he said that even a murderer should not be treated as he had been during the police investigations in the first murder. This case not only pinpoints the risk of recidivism, but also stresses the importance of interviewing suspects in such a way that does not provide motivation for denial or amnesia in suspects (see chapters by Hill & Memon, Chapter 10, and Holmberg, Christianson & Wexler, Chapter 15, this volume).

The case of AD as well as the case of Margaret McDonald, presented at the very beginning of this chapter, suggests that claims of crime-related amnesia represent a risk factor. Indeed, in their large-scale

study involving 308 forensic patients in high security settings, Cima, Nijman, Merckelbach, Kremer and Hollnack (2004) found that such claims were especially prominent among recidivists. This outcome also suggests that claims of crime-related amnesia are related to a criminal career (prior convictions). In the Cima et al. (2004) study, the most pronounced difference between offenders claiming amnesia and the controls was that the former were older and had more prior convictions (i.e., experience). Also, as argued by Van Oorsouw and Cima in this volume, it may well be that offenders who were familiar with the penal system have had more opportunities to experience the advantages of claiming (partial) amnesia for their crime. Along the same lines, Santtila and Pakkanen (Chapter 13, this volume) discuss whether criminal background, in terms of convictions and previous prison experience, and age of the suspects are relevant factors in understanding the effects of confessing or denying. For example, 'those with previous convictions may be more likely to be aware of their legal rights and through their familiarity with the interrogative situation more likely to be able to cope with the associated social pressures (Gudjonsson, 2003)' and to understand when it is more advantageous to confess or to resist confessing. In this volume, Gudjonsson provides a thorough discussion of confessions and false confessions (Chapter 11).

HOW MOTIVATED ARE OFFENDERS TO FORGET?

In order to assess the motivation among offenders to forget their crimes or simulate amnesia, we asked the offenders themselves about the occurrence of amnesia and their evaluation of other homicide offenders (Christianson, Holmberg, Bylin & Engelberg (2006)). A total of 182 convicted homicide and sexual offenders serving their sentences in Swedish prisons were contacted by post and ask to complete a questionnaire. The questionnaires were distributed to all inmates by the Swedish Prison and Probation Administration. More than 50% were willing to participate ($n = 83$). More specifically, half of the homicide offenders and half of the sexual offenders, with ages ranging from 20–63 years and with sentences ranging from 1.3 years to life imprisonment, volunteered to provide information. The questionnaire consisted of items about offenders' experiences of Swedish police interviews, about their attitudes towards allegations of these serious crimes (see Holmberg & Christianson,

2002), but also about memory and amnesia.³ One item in the questionnaire asked about their estimation of how often offenders generally deliberately feign loss of memory for the crime in order to avoid conviction. Only 2% of the homicide offenders thought that perpetrators of this type of crime never feign memory loss to some degree.

Another question asked was whether they had ever felt that they truly wanted to forget the crime event. Fifty-three per cent of the homicide offenders and 35 % of the sexual offenders answered positively to this item. These results suggest that homicide offenders are highly motivated to forget their offences. Overall, the results showed higher proportions of homicide offenders who claimed to be amnesic or to have a vague memory for the crime as compared to sexual offenders. This difference between homicide and sexual offenders is probably related to the fact that sexual offences are planned (instrumental), and that instrumental offences are less frequently associated with amnesia than are reactive offences (see below). To the specific question of whether they had experienced a complete or partial loss of memory for the crime event, 58 % of homicide and 45 % of sexual offenders claimed that they had. A subsequent question pertained to the vividness of their memory for the crime event. Among the homicide offenders, only 23 % claimed to have a very vague memory for the crime event. Keeping in mind that 58 % claimed to have a complete or partial amnesia for their crime at some point, and that only 23 % had a vague memory at the time of the interview, one must assume that 35 % (58 – 23) have had some sort of memory recovery.

CLAIMS OF AMNESIA AMONG INSTRUMENTAL AND REACTIVE HOMICIDE OFFENDERS

In analysing offenders' memories of violent crimes, the distinction between instrumental and reactive violence permits exploring several important issues: For example, which type of offender is more likely to commit an act of reactive violence as opposed to instrumental violence? Does the quality and veracity of memories differ between

³ To increase confidentiality and inmates' trust in participating in the study, and to avoid censorship from the correctional staff, the pre-stamped envelopes were pre-addressed to a public authority (Stockholm University). The Swedish Law on treatment of offenders in prison (§25, The Swedish Law, SFS 1974: 203) states that letters from inmates to public authorities should be forwarded without any censorship, accordingly the offenders were expected to be truthful in their anonymous answers to the questions.

acts of instrumental violence and reactive violence? Which type of violence is more likely to lead to genuine amnesia? Some answers to these questions are offered in an ongoing study, in which rates of amnesia are being assessed among instrumental versus reactive homicide offenders (Christianson & von Vogelsang, 2006). Christianson and von Vogelsang collected data from 146 homicide cases. Of these, 89 were coded as primarily reactive and 57 as primarily instrumental. Rage and relational themes were the two most common crime motives among reactive offenders, whereas sexual and thrill themes were the most common motives among instrumental offenders. Ninety per cent of the reactive offenders reported negative emotions at the time of the crime and 75 % reported such emotions for the period after the crime. In the instrumental group, 55 % experienced negative emotional arousal during and 42 % after the crime. This pattern is in line with previous research (e.g., Pollock, 1999) revealing that 58 % of those who had committed reactive homicide showed PTSD symptoms compared to 36 % among the instrumental murderers.

In comparing offenders' memory before, during and after the crime, Christianson and von Vogelsang (2006) found that it was more common to have complete memory loss for what happened during the crime than for information immediately before and after the crime. This pattern was evident for both groups, but was most pronounced in the reactive group. Note that this pattern is opposite to what is normally found when studying memory for emotional events (Christianson, 1992). That is, subjects typically remember the emotion-inducing event quite well, but show impaired memory for information preceding and/or succeeding the highly arousing event (Most et al., in press).

Forty-seven per cent of the reactive offenders and 28 % of the instrumental offenders claimed amnesia for the offence in the beginning of the police interviews. Twenty-three per cent (20 offenders) of the reactive offenders and 14 % (8 offenders) of the instrumental offenders consistently claimed to be amnesic for the act of killing throughout the investigation. Averaged across the two groups, this percentage is 19 %, which is quite similar to percentages reported in other studies on amnesia for homicide (e.g., Cima, Nijman, Merckelbach, Kremer & Hollnack, 2004; Pyzsoara, Barker & Kopelman, 2003; Taylor & Kopelman, 1984).

The question arises of whether these percentages associated with the instrumental and reactive offenders reflect true proportions of genuine amnesia for homicidal violence. There are several methods that can be used to evaluate the authenticity of crime-related amnesia. Jelicic and Merckelbach (Chapter 9, this volume) review four strategies that have been proposed in the literature: (a) using certain characteristics of the

amnesia and/or the defendant (i.e., symptoms of extreme specificity) as clues to distinguish true from feigned amnesia; (b) using standard malingering questionnaires or tests that, by means of self-report scales, assess clinically atypical or bizarre symptoms and preferences; (c) assessing the defendant's knowledge of the crime and the crime scene by means of symptom validity tests; and (d) using physical lie detection techniques such as the Guilty Knowledge Test/Relevant-Irrelevant Test, and Control Question Test. Strategies for detecting deception either by analysing what people say, observing nonverbal behaviour or measuring physiological responses are discussed at further length by Vrij and Granhag (Chapter 12, this volume)

In assessing the authenticity of the crime-related amnesia claimed by 19% of subjects in the Christianson and von Vogelsang (2006) study, symptoms of extreme specificity that are often associated with malingering were scrutinised. Drawing on a review by Porter and Yuille (1995), some clues will be listed. First, many amnesic offenders say that they recall events immediately preceding and following the crime, with a circumscribed memory loss for the act of killing itself. This typical pattern of remembering and forgetting was also claimed by Margaret MacDonald, whose case was described in the very beginning of this chapter. This pattern is quite unusual in clinical cases of both organic and dissociative amnesia, where more blurred demarcations between remembering and forgetting are found. Second, Schacter (1986) argued that false claims of amnesia are characterised by a sudden onset and low ratings on feeling-of-knowing judgements. If, for example, a murder suspect is asked about the possibility of recurrence of memories after being provided with cues, recognition alternatives, more time to think about the event, additional interrogations, a visit to the crime scene, etc., the malingerer is usually dogmatically negative. On a related note, malingerers typically report that they are not helped by an interviewing method known as the Cognitive Interview (Fisher & Geiselman, 1992; see also Chapter 14, this volume). This method incorporates: (a) reinstatement of both environmental and personal context; (b) reporting everything regardless of its perceived importance; (c) recounting the line of events in different temporal orders (forward or backward), and (d) reporting events from a variety of perspectives. Although the cognitive interview may not break a suspect who intentionally wishes to withhold information, one should expect him/her to retrieve more information as a result of these well-established memory-enhancing techniques. Malingerers usually say that they do not profit from these techniques.

Third, Porter and Yuille (1995) pointed out that malingerers are also more likely to relate symptoms of extreme specificity (e.g., 'I cannot

recall anything from noon until midnight') and to recount symptoms of extreme severity.

Fourthly, suspects often blame their amnesia on intoxication. Yet, as pointed out by Parwatikar, Holcomb and Menninger (1985), amnesia for crime is unlikely to be purely dependent on an intoxicated state. In their study on drivers arrested during large traffic-control actions by the Dutch police, van Oorsouw, Merckelbach, Ravelli, Nijman and Mekking-Pompen (2004) found that claims of alcohol amnesia (blackout) were predominantly made by those involved in an accident. More specifically, 85% of the drivers who claimed amnesia were involved in a serious motor vehicle accident, whereas 35% of those not claiming amnesia were involved in such an accident. Interestingly, during the time of the arrest, blood-alcohol concentrations (BACs) in those who claimed amnesia were not higher than BACs of arrested drivers who did not claim amnesia. This illustrates that the combination of amnesia and intoxication claims may serve face-saving purposes (see also Kalant, 1996). A more thorough discussion of the relation between alcohol and substance abuse and crime memories/claims of crime-related amnesia (cf., blackouts) is provided by van Oorsouw and Cima in Chapter 8 of this volume.

In evaluating the 19% of subjects who claimed amnesia in the Christianson and von Vogelsang (2006) study, certain characteristics were found to be common in this group. To begin with, 46% of the offenders were dogmatic about their amnesia (e.g., 'It doesn't matter if you ask me 5, 10 or even more times, I will never remember anything about what happened that evening'). A second feature was that 79% claimed to have total memory loss, for example, 'My memory is like a black hole, everything is gone'. In clinical cases of both organic and dissociative amnesia, patients have islands of memories or fragments from the amnesic part of the event rather than a total memory loss. Further, claims of sharp limits for the beginning and end of the amnesia were quite common among (e.g., 'from the moment I stepped out of the restaurant door, until I sat in the police car, everything is lost'). Fifty-four per cent described this type of circumscribed amnesia, which is an atypical pattern in clinical settings. Other symptoms of extreme specificity in the homicide offenders who consistently claimed to be amnesic for the act of killing were that memory loss varied between interviews (50%), that critical information was lost during interviews (38%) or that there was no recovery whatsoever. References to intoxication were also quite common. However, a closer look at the total sample revealed that 67% were intoxicated by alcohol during the crime (88% of the reactive offenders and

39% of the instrumental offenders), but only 19% of them claimed amnesia.

In the Christianson and von Vogelsang (2006) sample, almost all homicide offenders who consistently claimed to be amnesic for the act of killing showed three or more symptoms of extreme specificity. Given these characteristics, one may assume that forensic experts are well advised to consider the possibility of malingering in claimants of amnesia. There are, of course, several possible explanations for why offenders try to feign amnesia, as discussed elsewhere in this volume. Remaining silent is a more elegant way of evading answering cross-examination questions. It may also be an excuse used to avoid painful discussions about crime details with social workers or therapists. Among reactive offenders, it may be a strategy for psychological survival – a way to handle both the past, which has led to the act of crime, and the immediate present, being a murderer. But it may also be a strategy used among instrumental offenders (especially sexual murderers) to protect 'precious' memories. Doubt should arise specifically in cases when suspects with a diagnosis of psychopathy claim amnesia. Psychopaths do not experience the extreme negative emotions that may undermine encoding of information, but could instead experience very pleasant emotions during the crime. Psychopaths also have a tendency towards pathological lying and malingering (Porter & Yuille, 1995). In keeping with this, Cima et al. (2003) found, in their sample of psychiatric prison inmates, that those who claimed amnesia displayed more antisocial characteristics, but also scored higher on an instrument that taps into malingering tendencies.

Furthermore, psychiatric experts often have a pathology bias, and amnesia may elicit a cascade of psychiatric experts' willingness to explain the offender's deviant behaviour, for example, 'Well, he shows no regret, but on the other hand, he is amnesic'. Alternatively, amnesia may be used as an explanation when practitioners fail to obtain a statement (narrative) from a suspect/client. Perhaps, we are nursing a myth when we believe that people can be amnesic for such a unique, emotional, often once-in-a-lifetime event as murder. Of course, offenders can forget about certain details of the event, but the question is whether an offender can be amnesic with respect to the complete act of killing. Recent findings suggest that this is very unlikely.

On the other hand, some features may indicate that a claim of crime-related amnesia is bona fide. First, in some cases amnesic offenders may give themselves up or, at least, make no effort to avoid capture (Gudjonsson, Kopelman & MacKeith, 1999; Kopelman, 1987; Taylor &

Kopelman, 1984; see also case NN in Chapter 7, this volume). Second, there is a consistency in how they describe their amnesia, and many of their descriptions *do* in fact resemble those given by other people with psychological forms of amnesia – the memories being locked away in the back of the mind and difficult to retrieve, and sometimes there being islands or fragments of preserved memory within the amnesic gap, rather as in the amnesia that follows head injury. Third, it should be noted that victims of offences, such as rape victims, sometimes describe very similar amnesic gaps (Mechanic, Resick & Griffin, 1998), and eyewitnesses often make errors in recall; in neither case are their motives impugned. Fourth, alcoholic blackouts are very common in heavy drinkers, and many offenders have a long alcohol history, including previous blackouts, and very high BACs at the time of their alleged offence. Finally, it should be noted that amnesia on its own does not have any bearing upon criminal responsibility or accountability in most countries. The only exceptions are the very rare instances in which automatism is an issue, in which amnesia is a necessary but not sufficient condition for raising an automatism defence. In practice, amnesia can be damaging to mounting a defence, and can hinder a defendant's instructions to his/her lawyers.

For the expert witness, it may be difficult to differentiate between dissociative, organic or feigned amnesia. This has to do with the fact that simulators can give a compelling imitation of someone with a dissociative or organic amnesia. It is only with the help of structured interviews focusing on certain memory characteristics and tests (see Jelicic & Merckelbach, Chapter 9, this volume) that an expert will be able to identify simulators. Ultimately, it is a matter for the jury to decide whether they believe a defendant's account, including any claim of amnesia. The expert is there only to advise triers of fact on the circumstances in which amnesia may or may not arise, and the decision in any particular case is a matter for the jury. The question is how well informed appointed expert witnesses and judges are about the characteristics of genuine versus feigned amnesia, and what their beliefs are about the plausibility of developing complete amnesia for a crime.

EXPERTS' BELIEFS ABOUT CRIME-RELATED AMNESIA

Among laypeople, it seems that a large majority believe that it is perfectly possible for an offender to develop complete amnesia for his/her crime. This was evident in a study by Merckelbach, Cima and

Nijman (2002). The authors administered a vignette to 54 laypersons, in which a homicide and the aftermath were described. In the vignette, a court-appointed mental health professional concluded that the crime-related amnesia was a result of 'alcohol and drug use in combination with strong emotions'. The laypersons were asked whether they thought this was a plausible scenario in this type of crime. Eighty-two per cent indicated that they thought it was. Seventy-six per cent also felt that the court was very wise to appoint a forensic expert. When asked about the origins of the amnesia, 70% believed that alcohol and emotions were responsible.

The issue of whether or not offender-claimed crime-related amnesia might be genuine may have little or no effect on ordinary people's daily lives, nor on other people close to them. There are instances, however, in which these perceptions have the potential to seriously influence and even harm the life of others, i.e. when laypeople in their professional roles as judges, lawyers, prosecutors or police officers let false knowledge guide their decision-making process. One way for professionals working within the field of criminal justice to overcome this lack of knowledge is to consult an expert witness. Professionals should rely on expert witnesses to overcome their own lack of technical knowledge, and these expert witnesses should in turn base their opinions on what the psychological literature says about dissociative amnesia, simulated amnesia and organic amnesia. One would expect judges, prosecutors and other trained professionals to possess a greater knowledge of witness statement constituents, based on their education and experience, than do laypeople not working in the field of criminal justice, but also greater than laypeople in the field, such as politically appointed jurors.

In a study by Christianson and Freij (2006), 245 judges, 128 police officers and 214 jurors were asked to rate the degree to which they considered certain factors to be plausible causes of genuine amnesia in an offender. The authors' hypothesis was that the two professional groups would show lower ratings than would the group of laypeople, i.e. they would agree to a lesser extent that a certain factor might cause amnesia. The authors did find statistically significant between-group differences in the ratings, but post-hoc tests revealed no clear direction of these differences (see Table 1.1).

Christianson and Freij (2006) conducted another study with a more experimental design to explore whether professionals working in criminal justice share the belief that an offender can develop complete amnesia for his/her crime. The authors had two main objectives: first to further investigate possible between-group differences and, second, to examine whether case-specific information affected group beliefs.

Table 1.1 Professionals' and laypersons' beliefs about plausible factors causing genuine amnesia for the crime event in an offender¹

Variable	Judges (<i>n</i> = 245)	Jurors (<i>n</i> = 214)	Police Officers (<i>n</i> = 128)
Physical injuries	4.89	4.83	4.59
Extreme emotions of fear/terror ²	4.35	4.96	4.41
Extreme emotions of anger/rage ²	3.70	4.26	3.68
Very short crime course of event ²	3.14	3.45	2.76
Unplanned/unforeseen crime course of event ²	3.18	3.51	2.95
Sleep ambulism ³	4.00	3.51	3.64
Repression because of guilt and anxiety ²	4.24	4.64	4.28
Effects of alcohol ²	5.05	4.95	4.36
Effects of narcotics ²	5.12	5.42	4.66
Prolonged drug abuse ²	5.00	5.41	4.62
Influences from others ³	3.99	4.18	3.74
Mental disease ³	5.41	5.36	5.05
Mental disabilities ²	4.33	4.92	4.23

¹ Answers were given on a Likert scale from 1 = Not at all, to 7 = Very much. Numbers here are mean values.

² Significant between-group differences, $p < .01$.

³ Significant between-group differences, $p < .05$.

A vignette was constructed describing a homicide case in which an offender, after a night out visiting a restaurant, stabbed another person to death. The offender claimed amnesia for the homicide. The offender and the victim in this case were involved romantically and shared a history of violence and assault. Two case-specific conditions were manipulated: the gender of the offender and the perceived cause of memory loss (alcohol intoxication or extreme emotional stress). Thus, the vignette had four possible conditions. The vignette was randomly administered to 336 judges and 118 police officers and prosecutors. They were asked to carefully read the vignette and to answer two questions concerning whether or not the claimed amnesia could be considered genuine (yes/no) and to what degree they believed alcohol (in one condition) and extreme emotion (in one condition) to be a plausible cause of genuine amnesia. Over all conditions, the majority of judges (64%) and half of police officers/prosecutors indicated that the claimed amnesia could be considered genuine. This between-group difference was statistically significant. When

examining the specific conditions separately, similar trends were discovered. The strongest significant difference was found in the male offender/extreme emotion condition, where 70% of judges but only 37% of police officers/prosecutors believed the claimed amnesia to be genuine. Regarding the ratings of the degree to which alcohol or extreme emotions could be plausible causes of the claimed amnesia, no statistically significant difference was found between the two groups over the four conditions. However, trends similar to those described above emerged showing that the judges were more likely to favour the presented factor as a possible cause of amnesia. This trend was strongest in the male offender/alcohol condition. The authors also administered the vignette to 77 mental health professionals and 103 students. A majority (69% and 83%, respectively) of both groups also indicated that the claimed amnesia could be genuine, with similar trends over all four conditions. Both groups rated the plausibility of a genuine amnesia higher than did the professional groups.

MEMORY-UNDERMINING EFFECTS OF SIMULATED AMNESIA

Are perpetrators who claim amnesia liars? Instead of giving a direct answer, let us consider the complexity of remembering and sharing homicide offences. As discussed by van Oorsouw and Cima in this volume (Chapter 8), feigning amnesia not only obstructs legal and therapeutic processes but might also undermine memory for the crime. In a simulation study by Christianson and Bylin (1999), subjects were presented with a case vignette of a murder and were instructed to identify themselves with the offender. Next, one group of subjects was told to play the role of an amnesic offender during a task that consisted of a series of questions about the case. The control group was encouraged to perform as well as they could on this task. After a week, subjects returned to the lab and, again, answered questions about the case. This time, all subjects were instructed to perform as well as they could. During the first session, subjects who played an amnesic role gave fewer correct answers than did control subjects, which is not remarkable. It only shows that the 'amnesic' subjects took their role seriously. However, at the one-week follow-up test, ex-simulators were still performing under the level of control subjects. Along with the results of similar studies (van Oorsouw & Merckelbach, 2004), these results show that simulating amnesia has memory-undermining effects.

There are several explanations for why simulated amnesia may sometimes develop into real memory problems. One emphasises lack of rehearsal of crime details. People generally have a tendency to remove stressful thoughts, feelings and memories from their conscious awareness. Not only victims and bystanders but also perpetrators display an aversion to remembering traumatic events. Cognitive aversion is not static, however, but is dependent on the amount of psychological stress that is experienced. Thus, a major obstacle to recalling events of an unpleasant or traumatic nature is that intentional retrieval of such personal memories seems to be related to processes strategically aimed at inhibiting the reactivation of associated emotion (Philippot, Schaefer & Herbette, 2003). The finding is consistent with the notion of mood maintenance as well as the phenomenon of overgeneral memories (Williams et al., 2000). By remaining at a general or abstract level of information, individuals attempt to avoid the reactivation of acute and painful emotions felt in specific experiences of personal or forensic relevance. The perpetrator may have an even stronger motivation to engage in cognitive avoidance. It is common among reactive homicide offenders, as well as among victims of repeated sexual and physical abuse, to develop strategies to avoid thinking about the event. Many homicide offenders do not have a background of sharing personal negative experiences and have developed, from an early age, avoidance skills that involve distortion, displacement and stop-thinking activity. Over time, strategies of this kind, which underlie active avoidance, may cause links and associations to specific event details to become less robust (e.g., Wegner, Quillian & Houston, 1996). This circumstance, in turn, will limit access to detailed information.

Another possibility is that simulators think of a new version that better fits their wish to be less responsible for the crime. This type of processing would imply that perpetrators who feign amnesia confuse their own version with the original event and subsequently have difficulties understanding how their own memory has changed. This might result in source monitoring errors (Johnson, Hashtroudi & Lindsay, 1991). Still another explanation is that expectancies are the driving force behind the memory-undermining effect of simulating amnesia. People who initially played the role of an amnesic person may have a strong expectation that they will perform poorly on subsequent memory tasks. This, in turn, may give rise to a 'self-fulfilling prophecy' when the person is given such a memory task. This phenomenon is also known from studies on placebo effects. Subjects who receive a placebo in combination with the story that it is a memory-undermining substance later perform less well on memory tasks than do control

subjects (Kvavilashvili & Ellis, 1999; see also van Oorsouw and Cima, Chapter 8, this volume).

The general tendency towards avoiding reactivation of unpleasant memories and emotions or a confused version of the original event may, nonetheless, be overcome with the application of the memory-enhancing principles of the Cognitive Interview (CI) when assisting a person's information retrieval. As discussed by Fisher and Perez in this volume (Chapter 14), care is taken to allow sufficient time for an individual to recall all unique characteristics of a particular event before trying to retrieve details that are not immediately accessible. In applying the principles of the CI, plenty of time is allowed to recreate the circumstances surrounding an event, including time to recreate the emotional feelings associated with the event. As the interviewee is allowed to take the time he/she feels is necessary, the information is retrieved successively at a pace that is tolerable to the individual being assisted (see interviewing techniques discussed in Chapters 10, 11, and 15 in this volume). Further, nonverbal information pertaining to body movements and sensory perception (sights, colours, sounds, olfactory and gustatory details) may not only take time to access in memory in their own right but may be particularly imbued with salient emotions. Thus, reactivation of such details may be especially strenuous and painful. Many clinicians, therefore, let the person talk about his/her experience in the third person, that is, as if the event had happened to someone else and as if he/she had merely been an observer. This procedure does not always yield a detailed description but it is a suitable first attempt at recall, for example, when working with victims of rape or sexual abuse, for whom shock, shame and violated integrity bar any sharing of the most intimate details of their traumata.

BEING A RECIPIENT OF MEMORIES OF VIOLENT CRIME

In order for an offender to be willing to confront and tell about his/her crime, thus confronting his/her own feelings and the victim's reactions, there is a need for a recipient of potentially traumatising memories, someone who is skilled in listening to and prepared to receive reports of gruesome, shocking experiences from other people. Details of murder are not easy to listen to and many listeners disclose, either verbally or non-verbally, that they feel very uneasy when listening to details of violence. Besides confrontations with death exposure, many professionals receive potentially traumatising information merely by interviewing crime victims and suspects. A number of studies have shown

that exposure to gruesome events and human suffering on a daily basis creates stress in professionals (Anderson, Litzenberger & Plecas, 2002; Brysiewicz, 2002). Iliffe (2000) conducted structured interviews with 18 counsellors about their experiences of working with perpetrators and survivors of domestic violence. The counsellors revealed experiences of horror when hearing women narrate about severe abuse. General feelings of heaviness, churning stomach and nausea, as well as feeling shaken were responses that the counsellors perceived when women narrated about violent events. The responses the counsellors experienced sometimes generated a need to distance themselves somewhat from what they heard, and when they became too distanced from their client's narration, they saw the negative impact of their avoidance. Croft (1995) argues that some police officers may feel reluctant to use the technique of re-establishing the context of the crime event, a technique emphasised in the cognitive interview (Fisher & Geiselman, 1992). Mentally reconstructing the event in a victim's or an offender's mind may be seen by the police officer as promoting unbearable feelings in re-experiencing the crime event. Such emotive considerations may be put forward to justify a police officer's reluctance to confront details of crime.

In a study on police officers' attitudes towards interviewing crime victims and suspects, Holmberg, Christianson and Karlsson (2006) found that police officers perceived themselves as having a calm attitude and allowing time for comments in interviewing both crime victims and suspects. But results also showed a higher degree of stress-related symptoms from interviewing *suspects* as compared with victims. Holmberg et al. also found that the vast majority of the investigative officers conducted only one or two interviews with crime victims and that almost half conducted only one or two interviews with suspects. These findings suggest that police officers may be unaware of the mechanisms and prerequisites related to traumatised victims and suspects, or that they may consider they have no need for further information than what has been revealed through one or two interviews. An alternative assumption might be that some police officers are inclined to avoid closer contact with suffering or despicable people in order to avoid secondary or vicarious traumatising (see, e.g., Croft, 1995; Figley, 1995; Pearlman & MacIan, 1993). Karlsson and Christianson (2003) found that many Swedish police officers considered themselves as inadequately prepared and trained for stress-evoking events such as investigating brutal murders, especially when children are involved. Furthermore, research on psychotherapists (Pearlman & MacIan, 1993; Pearlman & Saakvitne, 1995) indicates that frequent work with rape victims and sexually and physically abused children

was associated with intrusive thoughts and avoidance, but also that coping ability was of great importance, such that absence of protecting factors increased the risk of vicarious traumatising. We can probably expect the same effects on forensic psychiatry staff for example, who must assess and treat individuals who have perpetrated serious violent or sexual crimes. A psychologist once told the first author about how upset she was the first time she was to meet with a 'murderer' (for a therapy session). We can assume that her client, the murderer, perceived her discomfort and consequently behaved in an agitated manner, which in turn confirmed the psychologist's bias that the murderer was a strange and, in the psychologist's eyes, threatening person (the man had stabbed his partner to death during a violent fight but was not otherwise considered a violent person). Perhaps police officers, as well as mental health personal working with convicted violent offenders, are not fully aware of their own affective responses to repetitive contacts with offenders of violent crimes. They may develop a distancing perspective as a defence against the negative aspects of the crime that they have to investigate. This may result in various consequences for the investigative duty, such as avoiding different crime-relevant details, terminating the interview too quickly or providing poor documentation from the interview. As discussed above, perhaps mental health practitioners too are inclined to accept amnesia in a homicide offender due to the grisly details of the murder.

Perhaps protecting factors play a part in that police officers often seek a confession, which, from their perspective, is an ideal starting point for a perpetrator to tell his story about the crime. However, many offenders and especially those who have committed reactive violence are not focused on the crime, but more on their own reactions and want to understand how it all could have happened. One would assume that better preparation among health personal and police officers might promote a different attitude towards multiple and in-depth interviews with offenders of violent and gruesome crimes. In Chapter 10 of this volume, Hill and Memon discuss training for investigators and present guidelines on investigative interviewing as a tool to determine how and why a crime occurred, and who committed the crime (see also Holmberg, Christianson & Wexler, Chapter 15, this volume).

SUMMARY

In searching for offenders' memories, we need to understand the basic principles of the relationship between emotion and memory. We also need to know that emotions may vary both within and between

offenders (e.g., from extreme pleasure to trauma), and that these emotions are closely related to the motivation for committing the crime (e.g., reactive versus instrumental). Violent crime suspects may deny crime or claim crime-related amnesia as a strategy to evade responsibility and to avoid psychological stress related both to the past and to the immediate present, for example, being a murder suspect. In analysing offenders' memories of homicidal violence, our data indicate that offenders have a strong motivation for feigning amnesia and that their claimed amnesia most often has symptoms of extreme specificity, indicating malingering. It should be noted that malingering per se may have memory-undermining effects. Among professionals working in criminal justice as well as mental health professionals, a majority believe that it is perfectly possible for an offender to develop complete amnesia for homicide, and that the memory loss may be an effect of strong emotions or excessive drug or alcohol use. In this chapter, we have presented arguments for why this approach is dubious and suggested that laypeople as well as professional groups, including judges and psychologists/psychiatrists, often do not possess relevant knowledge about offenders' paths to reactive or intended violence or about crime-related amnesia. A critical aspect in searching offenders' memories is the context in which an offender has to remember and tell about the crime. We argue that it is of immediate importance that the interviewer not only be skilful in investigative interviewing but also well prepared to receive reports of gruesome details and aware of his/her own affective and protective responses.

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