

Offenders' Memories of Violent Crimes

Edited by

Sven Å. Christianson

*Stockholm University and Sundsvall Forensic
Psychiatric Hospital, Sweden*



John Wiley & Sons, Ltd

Offenders' Memories of Violent Crimes

Wiley Series in
The Psychology of Crime, Policing and Law

Series Editors

Graham Davies and Ray Bull

University of Leicester, UK

The Wiley Series in the Psychology of Crime, Policing and Law publishes concise and integrative reviews on important emerging areas of contemporary research. The purpose of the series is not merely to present research findings in a clear and readable form, but also to bring out their implications for both practice and policy. In this way, it is hoped that the series will not only be useful to psychologists but also to all those concerned with crime detection and prevention, policing, and the judicial process.

For other titles in this series please see www.wiley.com/go/pcpl

Offenders' Memories of Violent Crimes

Edited by

Sven Å. Christianson

*Stockholm University and Sundsvall Forensic
Psychiatric Hospital, Sweden*



John Wiley & Sons, Ltd

Copyright © 2007 John Wiley & Sons Ltd, The Atrium, Southern Gate, Chichester,
West Sussex PO19 8SQ, England
Telephone (+44) 1243 779777

Email (for orders and customer service enquiries): cs-books@wiley.co.uk
Visit our Home Page on www.wiley.com

All Rights Reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, scanning or otherwise, except under the terms of the Copyright, Designs and Patents Act 1988 or under the terms of a licence issued by the Copyright Licensing Agency Ltd, 90 Tottenham Court Road, London W1T 4LP, UK, without the permission in writing of the Publisher. Requests to the Publisher should be addressed to the Permissions Department, John Wiley & Sons Ltd, The Atrium, Southern Gate, Chichester, West Sussex PO19 8SQ, England, or emailed to permreq@wiley.co.uk, or faxed to (+44) 1243 770620.

Designations used by companies to distinguish their products are often claimed as trademarks. All brand names and product names used in this book are trade names, service marks, trademarks or registered trademarks of their respective owners. The Publisher is not associated with any product or vendor mentioned in this book.

This publication is designed to provide accurate and authoritative information in regard to the subject matter covered. It is sold on the understanding that the Publisher is not engaged in rendering professional services. If professional advice or other expert assistance is required, the services of a competent professional should be sought.

Other Wiley Editorial Offices

John Wiley & Sons Inc., 111 River Street, Hoboken, NJ 07030, USA

Jossey-Bass, 989 Market Street, San Francisco, CA 94103-1741, USA

Wiley-VCH Verlag GmbH, Boschstr. 12, D-69469 Weinheim, Germany

John Wiley & Sons Australia Ltd, 42 McDougall Street, Milton, Queensland 4064, Australia

John Wiley & Sons (Asia) Pte Ltd, 2 Clementi Loop #02-01, Jin Xing Distripark, Singapore 129809

John Wiley & Sons Canada Ltd, 22 Worcester Road, Etobicoke, Ontario, Canada M9W 1L1

Wiley also publishes its books in a variety of electronic formats. Some content that appears in print may not be available in electronic books.

Anniversary Logo Design: Richard J. Pacifico

Library of Congress Cataloging in Publication Data

Offenders' memories of violent crimes / edited by Sven Å. Christianson.
p. cm.

Includes bibliographical references and index.

ISBN-13: 978-0-470-01507-0 (cloth : alk. paper)

ISBN-10: 0-470-01507-1 (cloth : alk. paper)

ISBN-13: 978-0-470-01508-7 (pbk. : alk. paper)

ISBN-10: 0-470-01508-X (pbk. : alk. paper)

1. Forensic psychology. 2. Violent offenders. 3. Amnesia. 4. Criminal investigation—Psychological aspects. 5. Criminal psychology. 6. Forensic psychology.

I. Christianson, Sven-Åke.

RA1148.O33 2007

364.3—dc22

2006023994

British Library Cataloguing in Publication Data

A catalogue record for this book is available from the British Library

ISBN-13 978-0-470-01507-0 (hbk) 978-0-470-01508-7 (pbk)

Typeset in 10/12pt Century Schoolbook by Integra Software Services Pvt. Ltd,
Pondicherry, India

Printed and bound in Great Britain by TJ International Ltd, Padstow, Cornwall

This book is printed on acid-free paper responsibly manufactured from sustainable forestry in which at least two trees are planted for each one used for paper production.

Contents

<i>About the Editor</i>	vii
<i>List of Contributors</i>	ix
<i>Series Preface</i>	xiii
<i>Preface</i>	xv
PART 1 THEORETICAL ASPECTS OF OFFENDERS' MEMORIES	1
1 Searching for Offenders' Memories of Violent Crimes <i>Sven Å. Christianson, Ingrid Freij and Eva von Vogelsang</i>	3
2 Memory Formation in Offenders: Perspectives from a Biopsychosocial Model of Eyewitness Memory <i>Hugues Hervé, Barry S. Cooper and John C. Yuille</i>	37
3 An Investigation of Violent Offenders' Memories for Instrumental and Reactive Violence <i>Barry S. Cooper and John C. Yuille</i>	75
4 The Nature of Memories of Violent Crime among Young Offenders <i>Ceri Evans and Gillian Mezey</i>	99
5 Memory for Murder: The Qualities and Credibility of Homicide Narratives by Perpetrators <i>Stephen Porter, Michael Woodworth and Naomi L. Doucette</i>	115

PART 2	EVALUATING OFFENDERS' MEMORIES	135
6	Neuroimaging and Crime <i>Hans J. Markowitsch and Elke Kalbe</i>	137
7	Amnesia for Homicide as a Form of Malingering <i>Harald Merckelbach and Sven Å. Christianson</i>	165
8	The Role of Malingering and Expectations in Claims of Crime-related Amnesia <i>Kim Van Oorsouw and Maaïke Cima</i>	191
9	Evaluating the Authenticity of Crime-related Amnesia <i>Marko Jelcic and Harald Merckelbach</i>	215
PART 3	INTERVIEWING OFFENDERS	235
10	Interviewing Suspects of Crime <i>Carole Hill and Amina Memon</i>	237
11	Interrogations and Confessions <i>Gisli H. Gudjonsson</i>	259
12	Interviewing to Detect Deception <i>Aldert Vrij and Pär Anders Granhag</i>	279
13	Crime Features and Interrogation Behaviour among Homicide Offenders <i>Pekka Santtila and Tom Pakkanen</i>	305
14	Memory-enhancing Techniques for Interviewing Crime Suspects <i>Ronald P. Fisher and Valerie Perez</i>	329
15	Interviewing Offenders: A Therapeutic Jurisprudential Approach <i>Ulf Holmberg, Sven Å. Christianson and David Wexler</i>	355
	<i>Index</i>	373

About the Editor

Sven Å. Christianson is a Professor of Psychology, Ph.D., Chartered Psychologist, and chief of the Research Unit for Forensic Psychology, at the Department of Psychology, Stockholm University, Sweden. He is also an Adjunct Professor at Sundsvall Forensic Psychiatric Hospital, Sweden. Dr Christianson has authored or co-authored over one hundred papers published in peer reviewed psychological and medical journals and anthologies, and has written or edited several books regarding crime, trauma, and memory, for example *Handbook of Emotion and Memory* (1992), *Traumatic Memories* (1994), *Crime and Memory* (1996), *Advanced Interrogation and Interviewing Technique* (1998) and *Police Psychology* (2004). The objective of his current research programme is to gain an understanding of the relationship between emotion and memory, with a research focus on victims', bystander witnesses' and offenders' memories of violent and sexual crimes. Dr Christianson has been a consultant in numerous murder, rape and child sexual abuse cases, and he is a sought after speaker and psychological expert witness.

List of Contributors

Sven Å. Christianson, Department of Psychology, Stockholm University, SE-106 91 Stockholm and Sundsvall Forensic Psychiatric Hospital, Box 880, SE-851 24 Sundsvall, Sweden

Maaïke J. Cima, Department of Medical and Clinical Psychology, Maastricht University, P.O. Box 616, 6200 MD Maastricht, The Netherlands

Barry S. Cooper, Forensic Psychiatric Hospital, Forensic Psychiatric Services Commission, 70 Colony Farms Road, Port Coquitlam, B.C., V3C 5X9, Canada

Naomi Doucette, University of New Brunswick - Saint John, Department of Psychology, Box 5050, Saint John, N.B., E2L 4L5, CANADA

Ceri Evans, Canterbury Regional Forensic Service, Hillmorton Hospital, Private Bag 4733, Lincoln Road, Christchurch, New Zealand

Ronald P. Fisher, Department of Psychology, Florida International University, 3000 N.E. 151st Street, Academic One, Room 324, North Miami, FL 33181, U.S.A.

Ingrid Freij, Department of Psychology, Stockholm University, SE-106 91 Stockholm, Sweden

Pär Anders Granhag, Department of Psychology, Göteborg University, PO Box 500, SE-405 30 Göteborg, Sweden

Gisli H. Gudjonsson, Department of Psychology, Institute of Psychiatry, De Crespigny Park, Denmark Hill, London SE5 8AF, UK

Hugues Herve', Forensic Psychiatric Hospital, 70 Colony Farm Rd., Port Coquitlam, B.C., V3C 5X9, Canada

Carole Hill, University of Aberdeen, School of Psychology, William Guild Building, Old Aberdeen, AB24 2UB, UK

Ulf Holmberg, Department of Behavioural Sciences, Kristianstad University, SE-291 88 Kristianstad, Sweden

Marko Jelacic, Department of Experimental Psychology, Maastricht University, P.O. Box 616, 6200 MD Maastricht, The Netherlands

Elke Kalbe, Max-Planck-Institute for neurological Research, Gleueler Str. 50, D-50931 Köln, Germany

Hans J. Markowitsch, Physiological Psychology, University of Bielefeld, P.O.B. 10 01 31, D-33501 Bielefeld, Germany

Amina Memon, University of Aberdeen, School of Psychology, William Guild Building, Old Aberdeen, AB24 2UB, UK

Harald L.G.J. Merckelbach, Department of Experimental Psychology, Maastricht University, P.O. Box 616, 6200 MD Maastricht, The Netherlands

Gillian Mezey, St George's University of London, Division of Mental Health, Jenner Wing, Cranmer Terrace, Tooting, London SW17 ORE, UK

Kim van Oorsouw, Department of Experimental Psychology, Maastricht University, P.O. Box 616, 6200 MD Maastricht, The Netherlands

Tom Pakkanen, Department of Psychology, Åbo Akademi University, FIN-20500 Åbo, Finland

Valerie Perez, Valerie Perez, 15290 SW 104th Street, Building 4, Number 12, Miami, FL 33196. U.S.A.

Stephen Porter, Dalhousie University, Department of Psychology, Halifax, Nova Scotia, B3K 4J1, CANADA

Pekka Santtila, Department of Psychology, Åbo Akademi University, FIN-20500 Åbo, Finland

Eva von Vogelsang, Swedish National Criminal Police Analysis Section, Investigative Analysis & Offender Profiling Unit, P.O Box 12256, SE-102 26 Stockholm, Sweden

Aldert Vrij, Department of Psychology, University of Portsmouth, King Henry Building, King Henry 1 Street, Portsmouth, PO1 2DY, UK

David B. Wexler, College of Law, University of Arizona, Tucson Arizona 85721, USA

Michael Woodworth, Ph.D., University of British Columbia - Okanagan, Department of Psychology, Irving K. Barber School of Arts and Sciences, 3333 University Way, Kelowna, B.C. V1V 1V7, Canada

John C. Yuille, Department of Psychology, University of British Columbia, 2136 West Mall, Vancouver, B.C. V6T 1Z4, Canada

Series Preface

The Wiley Series on the Psychology of Crime, Policing and the Law publishes integrative reviews of important emerging areas of contemporary research. The purpose of the series is not merely to present research findings in a clear and readable form, but also to bring out their implications for both practice and policy. In this way, it is hoped that the series will not only be useful to psychologists, but also to all those concerned with crime detection and prevention, policing and the judicial process.

The current volume has a focus on offenders' memories of violent crimes. This is a relatively new and challenging topic not only for psychologists but also for investigators and the courts. For a considerable number of years some people seem to have accepted the notion that victims in certain types of cases (e.g., violent rapes) may have difficulty in providing a comprehensive account of what took place, so can the same notion be applied to offenders?

In the opening chapter the editor (and co-authors) sets the scene for the remaining 14 chapters and asks whether empirical and theoretical foundations are actually available for the notion of offenders being unable to remember their crime. A following chapter then presents an innovative approach that emphasises the roles of emotions and individual differences. The major results from a very substantial, recent study of violent crime perpetrators are then reviewed, with the instrumentality of violence emerging as an important factor.

Young offenders commit violent crimes. Analyses of the accounts provided years later by such perpetrators noted that many of them had intrusive memories of their crimes, some of them appeared to have amnesia (at least partial) for the events, but few seemed to have full amnesia (i.e. could remember nothing). Of course, when appearing to have difficulty remembering their violent crimes, offenders may be trying to deceive. A chapter in this volume quite rightly addresses this crucial issue.

After this, the volume considers the possibility of whether in the near future brain imaging techniques could be used in violent crime investigations (e.g. of suspects) and the extent to which there might be a neural basis for criminal behaviour.

The role of malingering (e.g. feigning amnesia for a crime) is then extensively considered. In one chapter this is interestingly set within a particular murder case, and in another chapter a broader overview is presented, which notes that simulating amnesia seems to be quite a popular strategy for trying to minimise responsibility for a violent crime and that severe emotional arousal on the part of the offender and/or the taking of drugs/alcohol should not too readily be accepted as evidence for amnesia. A further chapter has a focus on how to assess the authenticity of crime-related amnesia.

How best to interview offenders is a crucial question regarding their (apparent) recall of violent crimes and one third of this volume's chapters are devoted to this issue. While the general public in most countries in the world could be under the impression that their police officers receive appropriate training in how to interview suspects, such training is relatively rare. One chapter overviews the extensive training now available to police officers in the UK and the contrasting approach that has historically been taken in the USA. Another chapter examines research on the relationship between interviewing and confessions, noting that some suspects' vulnerabilities may result in false confessions. A further chapter focuses on how best to interview co-operative suspects.

Since some people claim to have no memory of the violent crime they are being accused of having committed, interviewing to detect deception is a topic of high relevance to this volume. A comprehensive overview of this topic is therefore presented. Also of importance is the under-researched notion that aspects of the crime (e.g. the behaviour of the offender at that time) could act as a guide concerning how to interview the alleged offender (i.e. the suspect).

This volume concludes with a thought-provoking chapter that suggests that interviewing alleged violent crime offenders in a humanitarian way could be more effective than doing so in a coercive way. While such an idea could make sense from a psychological point of view, investigators (e.g. police officers), lawyers, politicians, and the general public may find it initially hard to grasp why this should be. This book will succeed in its aim when such readers come to realise the complexities of the topic of gathering offenders' memories of violent crimes.

RAY BULL
University of Leicester

Preface

Although research on offenders' memories has been relatively sparse, especially compared to research on victims' and witnesses' memories, it hardly constitutes a new theme in psychological research. Experimental and clinical studies have been conducted on this issue for almost 100 years, yet work on offenders' memories has never been compiled into a comprehensive volume. In recent years, researchers and practitioners have shown increasing interest in offenders and in the way offenders remember and tell about their crimes. The present volume is the first of its sort; its aim is to provide an up-to-date account of the current state of knowledge in the area of offenders' memories. It goes without saying that forensic psychology is a rapidly growing field, and the present book should prove to be a timely and valuable source for the increasing number of psychologists and other practitioners who have professional interests and responsibilities relating to crime, criminals, the police and the legal system.

The book presents a mixture of literature reviews, recently published or unpublished findings and theory on such topics as memorial patterns in perpetrators, instrumental and reactive offenders, traumatized offenders, crime-related amnesia, crime-related brain activation, detecting lies and deceit, confabulation and false confessions, expert witnesses' and lay people's opinions, and interviewing techniques. The present volume also discusses methodological difficulties and ethical dilemmas associated with different paradigms and procedures currently used to study offenders' remembering of and narratives on violent crimes. Furthermore, the book presents broader theoretical perspectives to guide future research on offenders' memories and testimonies.

The book is divided into three sections. The first section includes chapters that focus on theoretical aspects of offenders' memories. Some of the specific questions discussed include the following: What is the nature of eyewitness memory in offenders? Have offenders' memories

special characteristics that differ from those of victims and bystander witnesses? What factors can explain different memorial patterns in perpetrators' memories for violence? Are acts of instrumental violence remembered differently than acts of reactive violence? Do offenders with heightened levels of antisocial psychopathology remember differently than other offenders do?

The second section is concerned with aspects of assessment and evaluation, and explores offenders' memories, with particular emphasis on crime-related amnesia. Specific questions to be discussed are: How can we explain memory loss for criminal offences? What methods can be used to evaluate the authenticity of crime-related amnesia? What factors play the most crucial role in malingered amnesia? Is there a neural basis for criminal or antisocial behaviour and will different amnesia conditions show different brain activation patterns when studied using functional imaging techniques? How do intoxication, personal characteristics, expectations or lowered levels of intelligence affect offenders' memory? What are the beliefs among lay people and mental health professionals regarding offenders' memories and crime-related amnesia?

The final section contains chapters on interviewing issues. Among the specific questions discussed are: What factors can enhance the possibilities for suspects to provide useful investigative information? What interviewing techniques are effective in terms of accurately identifying suspects as truthful or untruthful? How can the interviewer recognize confabulation and false confessions in suspects? Can crime-scene features be used to predict interrogation behaviour among homicide offenders? What is the impact of offenders' well-being on their remembering of and narration on violent offences?

In taking on this book project, I attempted to bring together as strong a team of international researchers as possible, whose research covers a broad spectrum of topics concerning offenders' memories and narration. Fortunately enough, almost everyone I approached chose to participate, and all contributors have shown the greatest co-operativeness imaginable. The study of offenders' memory of violent and sexual crimes is an interdisciplinary undertaking of interest to clinical and experimental psychologists, psychiatrists, psychotherapists, social workers, judges, lawyers as well as police forces, penal institutions, probation services and other agencies that deal with offenders. In the process of editing this comprehensive volume, I have learned a great deal. I have also become convinced that the content of this book will further the knowledge and understanding of criminal behaviour of both students and professionals working in the areas of clinical psychology, forensic psychology and law enforcement.

I wish to express my gratitude to the contributors for finding time in their busy schedules, for their responsiveness to suggestions and for their willingness to add to the quality of this book. Many thanks to Karen Williams for her help in correspondence and editing. I am grateful to John Wiley & Sons for taking on this particular book project, and I would like to thank Matthew Duncan, Ruth Graham, Gillian Leslie, Carole Millett, Claire Ruston, and associates for their assistance in getting the book to press so quickly and efficiently. Finally, I am particularly grateful to Lina Leander for her love and support while this project was underway.

Sven Å. Christianson

Part 1

Theoretical Aspects of Offenders' Memories

CHAPTER 1

Searching for Offenders' Memories of Violent Crimes

SVEN Å. CHRISTIANSON, INGRID FREIJ AND EVA VON VOGELSANG

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