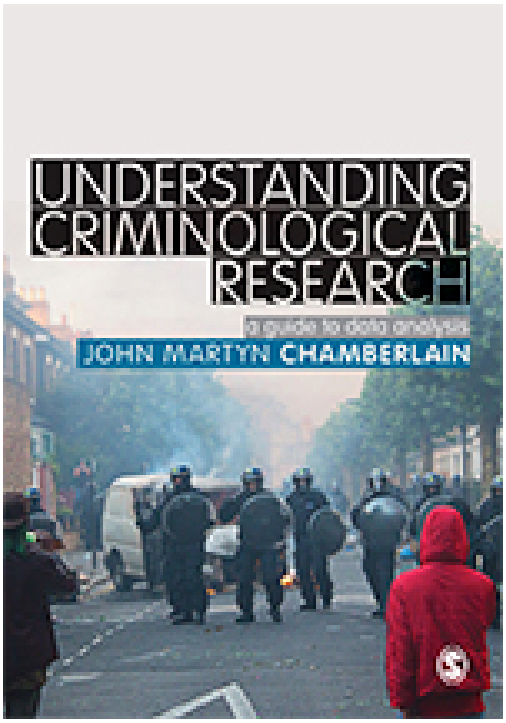


Sage Research Methods

Understanding Criminological Research: A Guide to Data Analysis

For the most optimal reading experience we recommend using our website.
https://methods.sagepub.com/book/mono/understanding-criminological-research/toc

Author: John Martyn Chamberlain
Pub. Date: 2014
Product: Sage Research Methods
DOI: https://doi.org/10.4135/9781473913837
Methods: Secondary data analysis, Discourse analysis, Grounded theory
Keywords: crime, fear of crime, crime and deviance, study skills, students, social science, reading (activity)

Disciplines: Criminology and Criminal Justice, Psychology, Sociology

Access Date: November 21, 2025

Publisher: SAGE Publications Ltd

City: London

Online ISBN: 9781473913837

Front Matter

Chapters

Back Matter

About SAGE

SAGE has been part of the global academic community since 1965, supporting high quality research and learning that transforms society and our understanding of individuals, groups and cultures. SAGE is the independent, innovative, natural home for authors, editors and societies who share our commitment and passion for the social sciences.

Find out more at: **http://www.sagepublications.com**

Copyright

SAGE

Los Angeles | London | New Delhi
Singapore | Washington DC

SAGE Publications Ltd
1 Oliver's Yard
55 City Road
London EC1Y 1SP

SAGE Publications Inc.
2455 Teller Road
Thousand Oaks, California 91320

SAGE Publications India Pvt Ltd
B 1/I 1 Mohan Cooperative Industrial Area
Mathura Road
New Delhi 110 044

SAGE Publications Asia-Pacific Pte Ltd
3 Church Street
#10-04 Samsung Hub
Singapore 049483

Library of Congress Control Number: 2012933330

British Library Cataloguing in Publication data

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

Editor: Natalie Aguilera
Editorial assistant: James Piper
Production editor: Rachel Eley
Copyeditor: Jill Birch
Proofreader: Jonathan Hopkins
Marketing manager: Sally Ransom
Cover design: Wendy Scott
Typeset by: C&M Digitals (P) Ltd, Chennai, India
Printed by: MPG Books Group, Bodmin, Cornwall

Mixed Sources
Product group from well-managed forests and other controlled sources
www.fsc.org Cert no. SA-COC-1565
© 1996 Forest Stewardship Council

ISBN 978-1-4462-0857-1
ISBN 978-1-4462-0858-8 (pbk)

First published 2013

SAGE Publications Ltd

1 Oliver's Yard

55 City Road

London EC1Y 1SP

SAGE Publications Inc.

2455 Teller Road

Thousand Oaks, California 91320

SAGE Publications India Pvt Ltd

B 1/I 1 Mohan Cooperative Industrial Area

Mathura Road

New Delhi 110 044

SAGE Publications Asia-Pacific Pte Ltd

3 Church Street

#10-04 Samsung Hub

Singapore 049483

Library of Congress Control Number: 2012933330

British Library Cataloguing in Publication data

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

ISBN 978-1-4462-0857-1

ISBN 978-1-4462-0858-8 (pbk)

Editor: Natalie Aguilera

Editorial assistant: James Piper

Production editor: Rachel Eley

Copyeditor: Jill Birch

Proofreader: Jonathan Hopkins

Marketing manager: Sally Ransom

Cover design: Wendy Scott

Typeset by: C&M Digitals (P) Ltd, Chennai, India

Printed by: MPG Books Group, Bodmin, Cornwall

Dedication

For my daughter Freyja, because she understands why I still need her hand to hold, particularly when crossing the street.

For my nana Freda, as without her I wouldn't have taken this path.

About the Author

Dr Chamberlain is a Senior Lecturer in Criminology and Social Policy in the Department of Social Science at Loughborough University. His academic background and research interests cross over the fields of criminology and medical sociology. Drawing on both fields, over the last decade and a half he has conducted research in a range of topics, including the care and treatment of mentally disordered offenders within the prison system, the identification and punishment of health practitioners who deliberately harm patients, as well as the surveillance and control of civil disobedience and public protest by crime control agencies, such as the police. Currently he is conducting research into contemporary developments in the risk management and treatment of offenders classified by the criminal justice system as dangerous, including violent and sex offenders, mentally disordered offenders and terrorists.

An Autobiographical Introduction

Chapter Overview

Chapter 1 introduces the focus of this book on providing an introduction to how qualitative and quantitative data analysis is undertaken by criminologists. The chapter outlines the importance of numbers and words for exploring criminal life and discusses how, although criminology is a highly diverse and fragmented discipline, at its centre lies a common commitment to undertaking rigorous and systematic empirical research as a member of a broader academic community. The chapter ends with a brief summary of subsequent chapter content.

Chapter Contents

The Importance of Words and Numbers

This book provides an introduction to different forms of data analysis used by criminologists to explore and examine the social world using words and numbers. A range of approaches to the analysis of narrative and numeric data are examined, including grounded theory analysis, narrative analysis, discourse analysis, univariate analysis and bivariate analysis. There are several research methods texts specific to criminology which provide students with help managing a research project (i.e. King and Wincup 2007; Crowe and Semmens 2008; Davies et al. 2011). Yet these texts don't focus in detail on the mechanics of doing different forms of data analysis. In addition to providing practical examples of how to do data analysis this book seeks to contextualise its content to help the reader understand the underlying key principles that serve to shape the analytic process. It does this by outlining the historical development of the different analytical strategies it discusses

within the emergence of qualitative and quantitative research within criminology as an academic discipline. Self-study questions and further readings on a range of issues pertinent to the collection and analysis of criminological data, including research design and the presentation of empirical findings, are also provided. Although written with the budding criminologist in mind, students studying other social science subjects will also find it a useful text. After all, sociologists, psychologists, geographers, as well as communication and media analysts, all examine the world in which we live using words and numbers.

When I was an undergraduate student one of my favourite tutors used to like to end each lecture she gave with what she called ‘question time’, so each week we had to take it in turns to ask her a question. The question could be about anything we wanted. It didn't have to even be related to the topic we had just listened to. We were encouraged to speak our mind and constantly reminded that nothing was off limits and only a foolish person thinks there is such a thing as a stupid question. It was a small and friendly class entitled ‘Humanity's place in Nature’ which ran for the whole of the first year of my undergraduate degree on a Wednesday evening. It was as interesting as its title suggested. To this day I view it as one of the best classes I've attended and in no small part this was down to the lecturer who ran it. Each week we would explore our topic – the place of human beings within the universe – by examining an aspect of the history of western and eastern philosophy and religion. As we did so we learnt about the differences and similarities between, for example, Buddhism and Islam, Hellenistic and Continental philosophy, Psychotherapy and ‘Hippie’ Counter-Culture, as well as Cubism, Deep Ecology and Postmodernism.

As you can perhaps imagine, virtually all the questions we asked weren't that creative, or that memorable for that matter – although they certainly may have seemed so at the time. Nevertheless, our lecturer always used our questions as a starting place from which to develop a healthy exchange of ideas and opinions. Most importantly, she always reminded us what we were doing in her class: looking at the different ways human beings try to make sense of the world around them. She often talked about how humans liked to ask questions and seek answers by telling stories about the world and their place in it using a mixture of words and numbers. Indeed, one of the first things we do when we are children is learn the power of words and numbers for understanding and navigating the world around us. As we grow so does our appreciation of how they help us grasp its key features, reoccurring patterns and surprising events. She reminded us how each generation looks to both the past and the future as it attempts to explain why the world looks and behaves the way it does. In our long search for answers we have sometimes been lucky enough to uncover the hidden structures and patterns which seem to control our environment. What is more, she said, we have learnt to express these in the forms of numbers and words. We give them names and tell stories about how we came to find them. So

we associate the discovery of gravity with the story of Newton and his apple tree. While in their more abstract forms they compress the complex world around us into an eloquent mathematical equation, such as $E = mc^2$, or some equally seductive narrative hypothesis that explains why things are the way they are.

Words and numbers not only provide us with access to the underlying structures present in the world around us, they also help us build a sense of self and allow us to communicate to others our own life story alongside that of the time and place in human history in which we live. But perhaps most importantly, they help us manipulate our environment and change it to get what we want. Harnessing the power of words and numbers, we have been able to change our surroundings, mass produce crops and livestock to sustain growing populations, eradicate certain diseases and contain still others, build extraordinary cities, as well as develop amazing information and communication technologies which make the global truly local. Important events from all over the world, which historically would have taken weeks or even months to reach us, now appear instantaneously on the screen in front of us. Coincidences, such as finding out that a new acquaintance also knows an old friend, are simply an expression of the underlying structures which drive the natural and social worlds we inhabit and the stories we in turn tell about them. After all, in a world built on probability and chance, but which nevertheless likes a good story, coincidences are bound to happen. What is more, they happen more often than we would care to admit.

My interest in how numbers and words can be used by the social sciences to examine the world around us has lasted throughout my undergraduate and postgraduate studies and into my subsequent academic career. During my Master's degree I conducted research in a prison in the United Kingdom, looking at the care and treatment of mentally disordered offenders. At this time (the mid-1990s) more formalised multi-agency working had been introduced nationally for the treatment of offenders who have mental health problems in prison as well as on their release into the community (James 2010). The numbers have consistently revealed that a disproportionately high level of mental illness and alcohol and drug abuse exists amongst the prison population. For example, a recent House of Commons report estimated that at least 70 per cent of prisoners in the United Kingdom suffer from two or more mental disorders, while noting that in the general population the comparative figures are 5 per cent for men and 2 per cent for women (Berman 2011). The situation was much the same when I was doing my research. Against this stark statistical background I sat and talked over cups of tea and biscuits to people whose life stories reinforced the complex nature of the problem of how best to care for individuals with mental health issues within an institutional environment primarily designed to punish wrongdoers. The narratives I collected to my mind revealed the presence of underlying socio-economic, cultural and ideological structures, which were at work shaping peoples lives and restricting the life opportunities

and personal choices some individuals have available to them, particularly if they happen to be born in the wrong geographical area, look and act differently, come from a troubled family background, or just have had a run of bad luck. Each day I spent completing my research in the prison environment not only made me more grateful that I could go home to my family but also reminded me of the power of words for exploring the social world around me.

Yet it wasn't until I began my doctoral research looking at the reasons why health and social care professionals sometimes use their position to commit murder and other criminal acts – such as in the case of the general practitioner Harold Shipman, who killed some two hundred of his patients – that I really started to get to grips with a broader range of analytical approaches available in the social sciences to analyse words (or qualitative data analysis as it is more formally called). Up until this point I had primarily used what is called grounded theory to analyse the stories I collected. This approach is sometimes referred to as thematic analysis owing to its tendency to 'chunk' pieces of text (usually interview responses) into thematic categories. Grounded theory analysis is perhaps the most commonly used qualitative analysis method in the social sciences, and involves building up your story of what is happening and why from people's own accounts, instead of approaching them with some pre-existing theory in mind. We will look at this approach in more detail in Chapter 3 when we examine different strategies for collecting data, as well as in Chapter 4 where we discuss grounded theory analysis in detail. For the moment it is enough to say that it was at this point that I began to expand my analytical repertoire beyond grounded theory analysis through exploring how to incorporate narrative analysis and discourse analysis in my work. For me, these approaches opened up a range of new theoretical opportunities for critically exploring criminal life and the role played by language, power and social structure in shaping human agency. I hope after reading Chapters 5 and 6, which respectively discuss narrative analysis and discourse analysis, that the reader will agree with me that their emergence within the social sciences over the past three decades has done much to enhance the reach of the criminological imagination.

For all I valued having a range of different analytical approaches to help me look in different ways at qualitative data, I never forgot the emphasis placed by my undergraduate lecturer on using both words and numbers when exploring the world around us. But examining the world using numbers, or quantitative data analysis as it is more formally called, doesn't appeal to all students. Reviews of quantitative teaching in higher education in the United Kingdom by Williams et al. (2006, 2008) reveal the wariness social science students can feel towards quantitative methods teaching, with the research showing that two out of three would rather write an essay than analyse numeric data and do statistics. As my postgraduate studies progressed and I began my academic teaching career I increasingly recognised the importance of nurturing students' statistical skills and

understanding of the role played by quantitative research in the ongoing intellectual development of the social sciences. My experience has shown that students may perhaps feel nervous when they find out they will be doing 'numbers analysis'. Nevertheless, if approached in the right way, quantitative methods teaching can significantly enhance their personal development and educational experience – partly through developing their awareness of the diverse range of statistically focused career and employment opportunities available to social science graduates, but mainly because, if managed carefully, quantitative teaching can enrich their understanding of the dynamic relationships which exist between criminological disciplinary discourse and practical real-world social problems and issues. Yet, to my mind, achieving this goal requires students be introduced to quantitative analysis in the first year of their studies, with this teaching being progressively deepened during subsequent years. This does not always happen in the United Kingdom – a state of affairs which deeply concerns the Economic and Social Research Council (ESRC) in its role as perhaps the key social science research funding body in the United Kingdom, which also grants PhD studentship bursaries (ESRC 2011).

In a recent report the ESRC strategic advisor on quantitative methods recommended after reviewing teaching provision nationally that cultural and institutional change was needed across the higher education sector 'to secure increased curriculum space for quantitative methods, including teaching in year 1 and more contact time for students' (MacInnes 2009: 27). In no small part this is why the introduction to quantitative data analysis covered in Chapters 7 and 8 of this book is specifically designed to introduce students to the main features of how the analysis of numbers is approached by criminologists. The goal is to provide a foundation to the analysis of numbers which students can apply in their own project work as well as subsequently build on as they move forward to examining more complex statistical procedures and techniques. Taken together Chapters 7 and 8 are an invitation for the reader to take the first step in what is a vitally important aspect of the study of the criminal life. More advanced students will find these chapters useful as an aidememoire to the basics of doing quantitative data analysis.

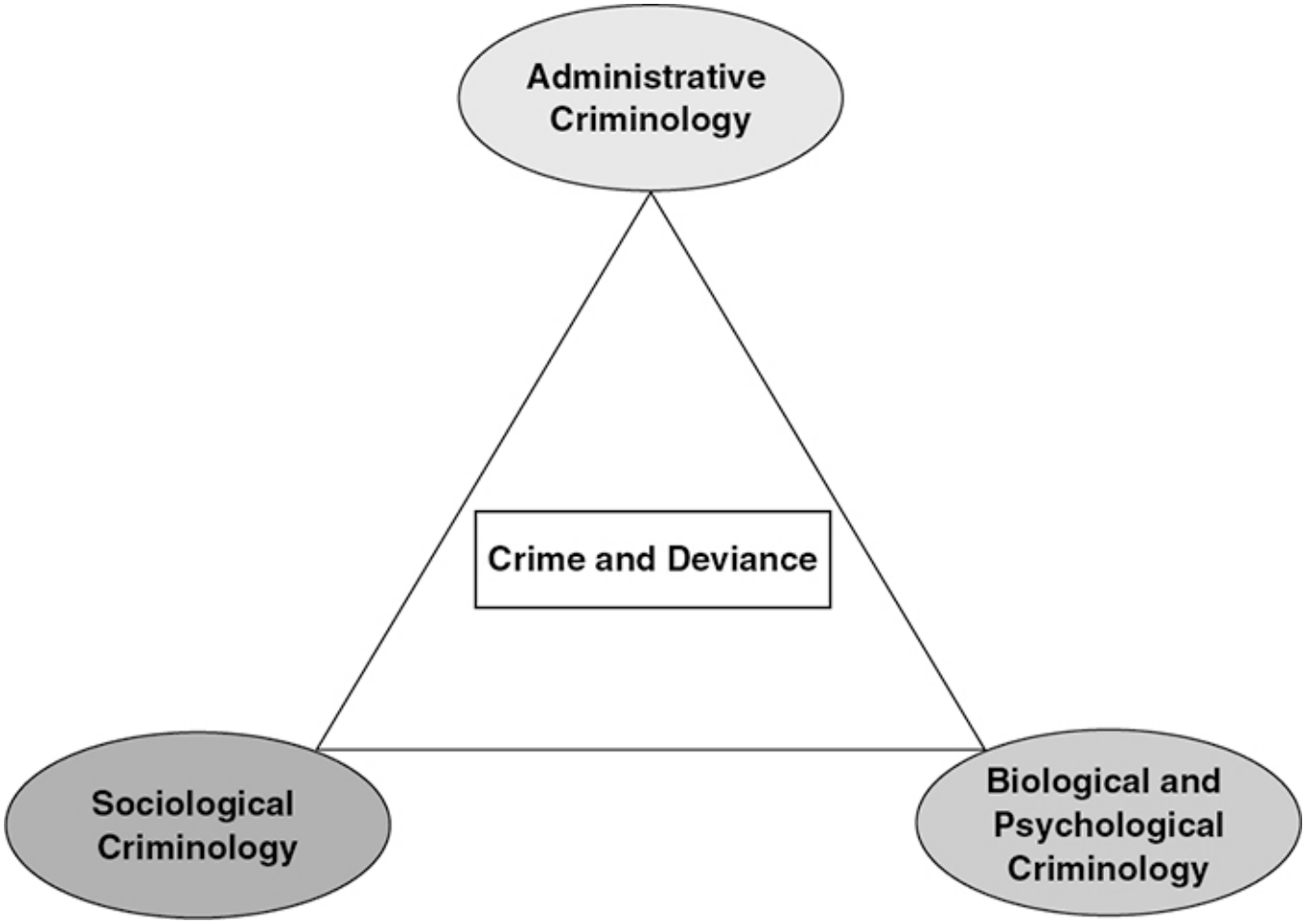
This focus on outlining the key features of how quantitative research is undertaken by the criminological academic community brings us to an important point concerning the analysis of words and numbers. Our ability to ask questions, to listen, to observe and critically reflect on the world around us, is built on our ability to use words and numbers to negotiate everyday life – we use them to manage our personal finances, choose the right house to buy, make a case for a job promotion, or decide which political party to vote for. But as we will discuss in Chapters 2 and 3, criminological analysis may well be built on our everyday commonsense understandings concerning the world around us and how it works; however, as an academic discipline it also seeks to move beyond these. As such it has developed its own distinctive ways of examining the world which are

often expressed in the form of key disciplinary concepts, theories and perspectives. A key theme of this book is that criminological research is a systematic and accumulative endeavour, undertaken by a community of scholars, all of whom contribute to a growing corpus of shared knowledge, even when they disagree with each other. Indeed, many academics, myself included, would say this is especially the case when they disagree with each other. Consequently Chapter 2 discusses, amongst other things, what is commonly referred to as the literature review and how this plays a key role in shaping criminological research even when we adopt a grounded theory approach. But for the moment I think it is important to focus on the fact that criminology is a highly diverse and fragmented discipline – no one viewpoint dominates, no one theory explains all. For this brings us to what I like to call the triangle of criminology.

The Triangle of Criminology

When asked about the undergraduate criminology degree course I teach I often find myself talking to prospective students (and sometimes their parents) about the triangle of criminology. I find this is a useful device for reinforcing the multi-disciplinary nature of criminology. So I explain that, like a triangle, criminology can be said to be made up of three interconnected ‘angles’: administrative criminology, biological and psychological criminology, and finally, sociological criminology. I find the metaphor of a triangle works quite well as it reinforces how each discipline is connected to each other and all are concerned (but in different ways) by a shared concern with crime and deviance, which consequently can be said to lie at the centre of the triangle (see Figure 1.1). Typically I point out that saying the subject matter of criminology is crime is more than a little problematic. Although it may seem like common sense to say criminologists are concerned with crime, we need to ask ourselves if we really want to restrict our thinking to a topic whose content and boundaries are defined by the state and its institutionalised agencies of social control, i.e. the legal system, the police and so on. Shouldn't criminology as an independent academic discipline be concerned with critically analysing the lawmakers and lawkeepers just as much as the lawbreakers? Although we may feel we have a strong innate sense of right and wrong the fact of the matter is that crime is a social construct and indeed definitions surrounding what constitutes a criminal act change over time. For example, homosexuality was once considered a crime in the United Kingdom. What is more, definitions of what is a crime also vary by geographical location. For example, the age of consent for sexual intercourse varies worldwide, indeed within Europe alone it is 13 in Spain and 16 in the United Kingdom. It is for these reasons that criminologists usually add the concept of deviance when discussing the focus of their disciplinary subject.

Figure 1.1 The triangle of criminology



Deviance is usually defined as behaviour which may not necessarily be illegal but nevertheless deviates from what is perceived as normal group behaviour. Hence including it in the focus of criminology allows us to examine both the social construction of 'the other' and so the processes by which certain behaviours come to be labelled as 'criminal' while others do not.

Being the subject matter of criminology, crime and deviance lie at the centre of our criminological triangle. Our next step is to consider the angles of our triangle. Let us begin with administrative criminology. Within criminology, administrative criminology is often taken to refer to a distinctive policy-oriented disciplinary development that emerged in the United Kingdom in the 1980s; it is concerned with situational crime prevention, that is, the measures taken at a local level to close down the opportunity for crime through preventive strategies such as the use of CCTV, the employment of shop security, the design of urban or city centre space, and so on. However, what I am referring to here under the banner of administrative criminology is the structure and processes of the criminal justice system and its associated agencies of social control, i.e. the police, legal

system and so on. Students studying undergraduate criminology programmes tend to expect that they will be taught about how the criminal justice system in the United Kingdom is organised and operates in practice, what its underlying principles and key procedures and who its key social actors are, as well as how certain key historical and contemporary legislative developments have impacted on the policing of crime and punishment of offenders. As part of this, students may well also explore the origins of criminology as an academic discipline and so be introduced to the next angle in our triangle: biological and psychological criminology.

A concern with crime and punishment may have existed for as long as recorded history yet it is only in the last 150 years or so that a distinctively scientific form of criminology has emerged. As we will discuss in Chapter 3, from the nineteenth century onwards we see an increasing emphasis on incorporating within criminology the methodological techniques of modern science with the result that a growing emphasis was placed by criminologists on collecting empirical evidence and engaging in practical experiment. While the focus of administrative criminology could be said to be on how society manages and deals practically with the problem of crime and deviance via a criminal justice system, with biological and psychological criminology the emphasis is very much about looking at the causes of crime and using the tools of modern science to do so. Most importantly, it is about looking at the causes of crime within the context of evolutionary, genetic or psychological predispositions to commit crime. Forerunners of this approach in the nineteenth century were Lombroso, Ferri and Garofalo, who sought to identify ‘the criminal type’ – which they felt was a throwback to an earlier stage in human evolution and so inferior to the normal population – through collecting and scrutinising the physical features of offenders. Their research led them to conclude that common indicators of ‘the criminal type’ included large cheekbones, flat noses and large eyebrows. Following Darwin's evolutionary theory such ‘abnormalities’ were perceived to be inherited from one generation to the next, creating a predisposition to crime within certain sections of society (who just also happened to be the poor, dispossessed and socially excluded).

More recently a range of biochemical factors have been discussed as possible biological triggers for crime: hormone imbalances, serotonin levels, testosterone, vitamin B deficiency and hyperactivity have all been suggested as risk factors for a propensity for aggression and violence, which in turn may lead to criminality (Rowe 2002). It is also worth noting that the growth of psychiatry as a medical discipline was tied up with the development of early research surrounding the criminal type, for its focus on organic and so biological explanations for mental illness fitted well with a growing political and cultural emphasis on value-neutral science and natural (as opposed to religious) explanations for human behaviour and social problems. Over the last several decades psychological explanations have joined the debate through locating possible causes of crim-

inal behaviour within responses to traumatic life experiences, such as childhood abandonment or instances of physical and sexual abuse (Howitt 2006).

The viewpoint that certain sections of society are inherently ‘bad’ or ‘criminal’ may not carry the immediate sense of legitimacy it perhaps once did amongst political elites and professional groups, including criminologists. Yet the idea that criminality is immutably connected to some underlying element of human nature, which may lie dormant within certain individuals unless certain biological or psychological trigger events occur, nevertheless to some degree still influences commonly held notions concerning why some people commit crime. The popularity of this viewpoint for political elites which advocate a more punitive approach towards crime to some extent lies in the fact that the analytical focus stays on individuals rather than the social environments in which they live. This leads us to our next angle in our criminological triangle: sociological criminology. Here the emphasis remains on looking at the causes of crime, but the focus shifts from looking for this inside individuals towards searching for it within the broader social conditions in which people live.

It would be oversimplistic to say that biological and psychological perspectives concerning crime do not recognise the importance of ‘the social’ when examining human behaviour. But their focus typically remains on an individual's familial background and social relationships, particularly during childhood and key transitional life stages from puberty to adulthood, rather than the key sociological themes of power, inequality and social structure. Within sociological criminology, emphasis is placed on exploring crime in relation to the unequal gender, class, race and ethnicity relations present in society. These social constructs are held to shape human behaviour as well as the opportunities and choices an individual has available to them. A concern with exploitive social relationships, social exclusion, as well as the unequal distribution of social opportunity, lies at the centre of sociological criminology. Hence, sometimes the terms critical criminology, radical criminology and sociological criminology are used interchangeably to describe this approach – while the more recent development of cultural criminology serves to further complicate matters. Key analytical concepts for this approach to criminology include patriarchy, institutional racism, social disorganisation, differential association and differential opportunity, strain, status frustration, labelling and social control. This brings to the foreground the point that criminology is a broad church incorporating a variety of perspectives or movements, including the sociology of deviance, left and right realism, feminism, subculture analysis, victimology, cultural criminology, postmodernism and peacemaking criminology (Tierney 2006).

This broad brushstroke outline of the criminological triangle reinforces three key issues relating to the study of crime and deviance. First, when exploring a topic we need to consider the relevance of each angle of our

triangle even if we wish to focus our attention on one aspect of it. For example, with the issue of domestic violence we may be primarily concerned with exploring the impact of culture and ideology in the form of patriarchy on the experience of victim reporting (sociological criminology). But we must also consider how the criminal justice system responds to this offence, both punitively and in terms of offender rehabilitation, particularly if we are interested in critically evaluating whether how victims are treated by the legal system has changed over time (which is a concern for administrative criminology, but in some respects sociological forms of criminology too). It would also be useful to identify what is known about the profile of the offender, the effectiveness of offender treatment and victim support programmes, as well as what the personal, emotional and psychological impact for victims may be of reporting this offence and subsequently giving evidence in court (psychological criminology).

Recognising the need to view ‘all the angles’ surrounding a topic leads us to the second key issue highlighted by our discussion of the triangle of criminology. Namely, criminology may have its own disciplinary academic corpus in the form of published research, journal articles, books and so on, but it nevertheless does borrow empirical findings, viewpoints and conclusions from a range of other academic disciplines, including social policy, law, biology, philosophy, medicine, sociology, genetics, education, history, economics, psychology (social and forensic) and geography, to name but a few. Criminology is inherently a fragmented discipline and is arguably better off for being so. For one of the key consequences of the fact that no one theoretical perspective holds sway over criminology's intellectual foundations is that it always welcomes alternative opinions and viewpoints, which in turn means it remains ever open to new theoretical insights and empirical research possibilities.

This point brings us to our third and final issue, which also is one of the key themes running through the subsequent chapters of this book. Criminology may well be a fragmented discipline but as a social science what distinguishes it from everyday commonsense discourse is a commitment shared by its members to rigorously exploring and testing disciplinary assumptions and theories through engaging in systematic empirical inquiry. This does not mean armchair theorising is not valued as highly as empirical inquiry. Both are needed in equal measure for any academic discipline to flourish and grow. But it does mean that criminological research is often designed and undertaken by individuals with academic and policy-making communities in mind, a fact we perhaps can see most clearly in the role of the published literature surrounding the topic in helping a researcher formulate their initial research question, design a project to answer it, analyse their findings, as well as subsequently consider what the implications of their results may be.

Purpose and Structure of This Book

The act of doing criminological research requires that we undertake a commitment to incorporating the work of others within our own thinking about a topic, and open up our research findings to critical peer appraisal. Ensuring that we can justify how we went about analysing our research data is a central feature of this process: when we present our findings it is necessary to outline not only why we asked the research question we did and collected our data in a certain way; we must also critically discuss how we went about analysing our data. This book seeks to make this process a little easier for the first-time researcher through outlining the main features of different approaches to qualitative and quantitative data analysis against the background of their emergence within the development of criminology as an academic discipline. Hence it has two key aims:

1 To provide an introduction to different forms of qualitative and quantitative data analysis, as well as to place this discussion within the context of the development of criminology as an academic discipline.
2 To outline key features of the research process and provide guidance and further readings to help students plan a research project.

The following chapters are structured in such a way as to fulfil these aims. Chapter 2 discusses the importance of deskwork and the need to carefully organise and plan a research project before conducting fieldwork. The chapter also focuses on the process of moving from initially identifying a broad research area to subsequently focusing this down into a researchable topic with a clear question to answer. The role played in this process by study skills, project management, assessment criteria and the existing academic literature are also outlined. Following on from this discussion Chapter 3 acts as a bridge between Chapter 2 and subsequent chapters, which are concerned with different data analysis techniques; hence it discusses project planning and research design and management issues, including making contacts, gaining access and obtaining ethical approval to conduct research. In doing so the chapter examines important aspects of the history and conduct of criminological research, including the role of criminological theory in initial research design.

Chapters 4, 5 and 6 are concerned with qualitative data analysis, and discuss, respectively, grounded theory analysis, narrative analysis and discourse analysis. Each chapter follows a similar format, first outlining the history of each approach to the analysis of words, before detailing their main analytical principles using illustrative examples from published research to help the reader apply what they have learned in their own research. Chapters 7 and 8 follow a similar format although they discuss, respectively, univariate and bivariate

quantitative data analysis. The focus here is on exploring how to summarise statistical data and identify possible relationships between two variables, such as gender and the fear of crime. Finally Chapter 9 returns to the theme of deskwork and discusses the purpose of doing criminological research alongside the writing-up and dissemination of research findings.

Box 1.1: Self-Study Tasks, Case Studies, Recommended Readings and Chapter Review Activities

Each chapter has study boxes which contain self-study tasks, illustrative case study examples of key points, recommended readings, as well as chapter review activities.

Self-study tasks are provided to help the reader: first, develop their own research project and identify an appropriate topic and question given their practical circumstances; second, design an empirical study using a qualitative, quantitative or mixed-methods approach; and third, write up and present research findings after completing the data analysis process.

Illustrative case studies are provided throughout the book to help the reader understand key issues and points as well as how the forms of data analysis outlined are conducted so they can apply them in their own research. The examples used are drawn from internationally published academic sources to help the reader contextualise their learning within criminology as a critical discipline concerned with examining criminological life using a variety of sources and materials.

Recommended further readings are provided at key points during chapters to act as resources and help the reader examine a topic or issue in greater detail. Not all the further readings are book-based; some useful website references are also provided.

Chapter review self-study activities can be found at the end of each chapter. These take the form of tasks which can be completed using the content of a chapter as well as the further readings provided therein. Completing these task activities will help the reader to further consolidate their learning.

Taken together the contents of this book are an invitation to the reader to enter the world of numbers and words as a means to capture and explore criminological life in all its colourful hues. It is up to the reader to decide how they respond. Although in my experience I have found that most students relish the challenge of doing their own research project, nevertheless often a little nervousness and self-doubt creeps in. Furthermore,

just as there are no easy and straightforward answers to the problem of crime, similarly there are no easy options when it comes to entering the world of *doing* criminological research and data analysis. However, the first-time researcher should not underestimate their ability to successfully manage a research project. After all, they already use words and numbers to explore and understand the world around them. Indeed, this ability is essential to completing a whole host of everyday tasks. Nor should the first-time researcher underestimate the value of a 'can do' attitude, dogged persistence, as well as a good dollop of sheer luck and serendipity, particularly if they are going to successfully negotiate all the potential and actual problems which lie before them when they begin a practical research project. This said, each person must learn for themselves the truth of the axiom that no research project ever goes completely to plan no matter how well planned it may be. The resources, guidelines and rules of thumb scattered throughout this book should, however, make this journey of self-discovery a little easier.

Chapter Reading List

Berman, G. (2011) *Prison Population Statistics*. London: House of Commons Library.

Crowe, I. and Semmens, N. (2008) *Researching Criminology*. London: McGraw-Hill.

Davies, P., Francis, P. and Jupp, V. (2011) *Doing Criminological Research*. London: Sage Publications.

ESRC (2011) *Undergraduate Quantitative Methods Initiative Curriculum Innovation and Researcher Development Initiative Call Specification*. Available at: http://www.esrc.ac.uk/funding-and-guidance/funding-opportunities/15407/latest-opportunity-13.aspx

James, D.V. (2010) Diversion of mentally disordered people from the criminal justice system in England and Wales: an overview, *International Journal of Law and Psychiatry*, *33*(4): 241–8.

Howitt, D. (2006) *Introduction to Forensic and Criminal Psychology*. London: Prentice Hall.

King, R. and Wincup, E. (2007) *Doing Research on Crime and Justice* (2nd edn). Oxford: Oxford University Press.

MacInnes, J. (2009) *Proposals to Support and Improve the Teaching of Quantitative Research Methods at Undergraduate Level in the UK*. ESRC Strategic Advisor Report. Available at http://www.esrc.ac.uk/_images/

Undergraduate_quantitative_research_methods_tcm8-2722.pdf

Rowe, D. (2002) *Biology and Crime*. Los Angeles: Roxbury.

Tierney, J. (2006) *Criminology: Theory and Context* (2nd edn). Harlow, Essex: Pearson Education.

Williams, M., Payne, G., Hodgkinson, L. and Poade, D. (2006) *Student Perceptions and Experiences of Quantitative Methods*. University of Plymouth.

Williams, M., Payne, G. and Hodgkinson, L. (2008) Does sociology count? Student attitudes to the teaching of quantitative methods, *Sociology*, *42*(5): 1003–22.

https://doi.org/10.4135/9781473913837

Glossary

ANALYTICAL GENERALISATION A form of generalisation based on the development of a conceptual framework thematically developed from textual data. It is most associated with qualitative research, but more so grounded theory analysis than narrative or discourse analysis, as these approaches tend to be less concerned with the generalisation of research findings and more with ensuring both narrative authenticity and that previously silenced and oppressed voices are heard.

AXIAL CODING A form of coding used in grounded theory analysis which is focused on the exploration of the attributes and dimensions of an emergent thematic category as a result of completing the process of open coding. Axial coding is sometimes subsumed within the selective coding process.

BIVARIATE ANALYSIS The analysis of two variables to identify if there is a relationship between them, e.g. gender and fear of crime.

CONTINGENCY TABLE A contingency table (also referred to as cross-tabulation or cross-tab) is a table or matrix which displays the frequency distribution of variables.

CONVENIENCE/SNOWBALL SAMPLING A form of sampling where respondents are selected on the basis of immediate availability, e.g. passers-by in the street. A popular variation of convenience sampling is snowball sampling where a research participant guides the researcher to their next respondent. Convenience sampling is popular in survey research concerned with public perceptions of topical issues, and snowball sampling is popular in qualitative research studies concerned with hard-to-reach groups.

DISCOURSE ANALYSIS A qualitative data analysis technique – heavily influenced by social constructivism – that takes as its starting point the position that language is constitutive of reality and which seeks to deconstruct the socio-cultural norms and power relations present within different forms of talk. The analytical tools of interpretive repertoire and subject position are used to assist this deconstructive process.

GROUNDED THEORY A form of qualitative data research and approach to data analysis which advocates the inductive generation of theory from respondents' accounts rather than the deductive testing of a pre-stated hypothesis. Grounded theory adopts a theoretical sampling strategy and follows an analytical process which moves from open coding to axial and selective forms of coding, in order to achieve theoretical saturation and analytical generalisation.

INTERPRETIVE REPERTOIRES Interpretive repertoires are more or less coherent ways of describing ourselves and the world around us. Discourse analysts hold that interpretive repertoires

provide ready-made explanations and subject positions which individuals creatively use within a social situation to achieve certain ends.

INTERVAL VARIABLE Interval variables are determined by categories which can be ordered, and furthermore possess discrete value differences between each other which are consistent and can be expressed in numeric terms, e.g. height is expressed intervally as follows: somebody who is 180 cm tall is exactly 1 cm taller than somebody who is 179 cm, and exactly 1 cm shorter than somebody who is 181 cm.

LEVELS OF MEASUREMENT The term used to express the difference between nominal, ordinal and interval forms of data in terms of their relative value, with nominal being lowest, ordinal middle and interval highest. Levels of measurement dictate which measure of association test can be used.

MEASURE OF ASSOCIATION Measures of association are statistical tests used to test for a relationship between two variables. Commonly used measures of association include Phi, Cramer's V, Spearman's rho and Pearson's r. Which measure of association test is used is decided by the lowest level of measurement of the two variables under analysis.

MEASURE OF CENTRAL TENDENCY The numeric expression of the middle values of data-set variables using the mean (the average value), the median (the central value in the distribution) or the mode (the most frequent value). Which measures of central tendency are used is decided by a variable's level of measurement.

MEASURE OF DISPERSION The range of distribution within the variables of a data-set between the lowest and highest values. Key measures of dispersion used in univariate analysis include the range, the interquartile range and the standard deviation. Which measures of dispersion are used is decided by a variable's level of measurement.

MEASURE OF SIGNIFICANCE A statistical test which measures whether the results from a sample can reasonably be generalised to the wider population, e.g. chi-square. When the measure of significance result is not held to be robust (i.e. it is higher than 0.05) then this indicates the possible presence of sampling error.

MIXED METHODS An approach to empirical research that uses more than one research method to collect empirical data. Mixed-methods research often involves using both quantitative and qualitative methods.

NARRATIVE ANALYSIS A qualitative data analysis technique which possesses a social constructivist orientation and focuses on exploring the storied nature of social life. Narrative researchers are concerned with how people creatively use narrative structure, rhetoric and plotting to construct a sense of personal identity, negotiate social situations, as well as locate their lived experience within broader social processes and events.

NOMINAL VARIABLE Nominal variables are determined by categories which cannot be ordered, e.g. gender is expressed nominally in terms of male and female categories but these categories

cannot be ordered in terms of value.

NULL HYPOTHESIS A statement concerning the relationship between two (or more) variables. The null hypothesis is the opposite of the working hypothesis developed by a researcher as a result of their literature review. It is the null hypothesis that is tested by a researcher using measures of association to check for a correlation between variables and measures of significance to check for the possibility of sampling error.

OPEN CODING A form of coding used in grounded theory analysis which is focused on the initial identification of pertinent themes within textual data. Open coding must be completed before moving onto axial and/or selective coding.

ORDINAL VARIABLE Ordinal variables are determined by categories which can be ordered but to which an exact numeric value between the categories cannot be determined, e.g. attitudes can be expressed ordinally in terms of a ranked scale running from 'Strongly disagree' to 'Strongly agree'.

POSITIVISM Until recently this was the dominant model of the criminological research process. Positivism first emerged during the mid-nineteenth century but was increasingly challenged by various social constructivist forms of criminological research from the mid-twentieth century onwards, i.e. narrative and discourse analysis. Positivism assumes there is an objective reality which exists independently to human beings and can be readily accessed by them. It emphasises the need for a researcher to engage in systematic observation and experiment in a value-neutral and dispassionate manner in order to discover underlying causal laws of behaviour. Positivism is most associated with quantitative forms of research but qualitative grounded theory analysis has been criticised for seeming to possess positivistic assumptions.

QUALITATIVE RESEARCH Empirical research in which the researcher explores a topic using textual data. Key research methods used to collect textual data include interviews and observations (although experimental research can be used to collect qualitative textual data as well). Policy documents and organisational files, e.g. police reports or legal documents, can also be used for qualitative research purposes, as can visual and media materials, e.g. films, photographs and TV adverts. Key data analysis techniques include grounded theory analysis, narrative analysis and discourse analysis. In qualitative research, emphasis is generally placed on analytical as opposed to statistical generalisation.

QUANTITATIVE RESEARCH Empirical research in which the researcher explores a topic using numeric data. Key research methods used to collect numeric data include surveys and experimental research (although experimental research can be used to collect qualitative textual data as well). Key data analysis techniques include univariate and bivariate analysis (which are sometimes called descriptive and inferential statistics, respectively). Emphasis is placed on statistical as opposed to analytical generalisation. It is important to account for sampling error when conducting quantitative research.

RANDOM SAMPLING A form of sampling where respondents are selected at random from a possible sampling frame. Typically the sampling frame is numbered and then a sample is selected using a random number generator. Random sampling is popular with researchers seeking to reduce sampling bias by reducing their own role in the selection of research participants, and is frequently used in both survey and experimental research studies.

RELIABILITY The extent to which a research method yields the same result on repeated trials.

SAMPLE A sample is a group selected from a sampling frame which a researcher will collect empirical data from using qualitative and/or quantitative research methods. All researchers take steps to ensure they select a sample that can be considered representative of the people to whom their results will be generalised. There are several different sampling approaches adopted by researchers: convenience sampling, stratified sampling, random sampling and theoretical sampling are amongst the most popular. Sample size is important as generally the larger the number in the sample, the higher the likelihood of obtaining a representative distribution of the targeted sampling frame, which in turn reduces the threat of sampling error.

SAMPLING ERROR The degree to which the results from the sample deviate from those that would be obtained from the entire population.

SAMPLING FRAME The population which is a focus of a particular study is known as the sampling frame, e.g. victims of crime in the United Kingdom in the last year. Typically a researcher will seek to select a sample of research participants so they can generalise their findings to the sampling frame using statistical generalisation if they are using quantitative research, or analytical generalisation if they are using qualitative research. This process is complicated by the fact that it is not always feasible to define a sampling frame, e.g. it is impossible to know exactly how many people have been victims of crime in the United Kingdom in the last year, as not all crimes are reported.

SELECTIVE CODING A form of coding used in grounded theory analysis which is focused on the exploration of dominant thematic categories within textual data to identify a central theme around which all others can be placed.

SOCIAL CONSTRUCTIVISM A model of the criminological research process which first emerged in the social sciences during the mid-twentieth century. Social constructivism argues, in contrast to positivism, that reality cannot be accessed in an objective and value-neutral manner by a researcher. It emphasises the presence of multiple possible interpretations of reality while at the same time noting the role of language in creating shared meanings and narrative stories about the nature of the world and the place of human beings in it. A distinction can be drawn between strong and weak constructivism, with the former arguing that it is completely impossible to access reality outside of the language and cultural norms used to describe it, and the latter holding that a limited form of access is possible while still rejecting positivistic assumptions regarding the ability of a researcher to be objective and value-neutral in their research.

STATISTICAL GENERALISATION A form of generalisation based on numeric data concerned with the extent to which research findings from a study conducted on a sample can be applied to the population at large – also known as the sampling frame. Survey and experimental forms of research utilise statistical generalisation.

STRATIFIED SAMPLING A form of sampling where respondents are selected on the basis of fit to a particular aspect of the sampling frame which is often expressed in terms of 'quota filling', e.g. if out of 50,000 known victims of knife crime 35 per cent were Asian, 45 per cent were black and 20 per cent were white, then a stratified sample would be selected that reflected the distribution of this split. Stratified sampling is often used in large-scale survey research, for example the British Household Survey, to help ensure validity, reliability and statistical generalisation.

SUBJECT POSITION Subject positions are socially defined identities made relevant by specific ways of talking about a person, thing, event or social situation. Discourse analysis is concerned with the examination of how different subject positions are offered, accepted or resisted within discursive exchanges between two or more people in order to identify underpinning socio-cultural norms and power relations.

THEORETICAL SAMPLING A form of sampling used in qualitative research, particularly in grounded theory, which emphasises respondent selection based on their ability to contribute to the development of a thematic framework that is analytically generalisable.

THEORETICAL SATURATION In grounded theory analysis, theoretical saturation is held to occur when collected data contains within it reoccurring thematic categories, which revolve around a core explanatory thematic category, in spite of a researcher deliberately and systematically attempting to disprove their emergent understanding of their data through repeatedly collecting further data. There is no set guide to when theoretical saturation occurs, hence every grounded theory researcher must articulate a convincing reason why they have stopped collecting further data.

TRIANGULATION Triangulation is used by a researcher to bolster the validity and reliability of their study. It comes in different forms: 'data triangulation' involves using different types of data concerned with the same topic; 'investigator triangulation' involves using different researchers in the same project to collect and analyse data; 'theoretical triangulation' involves using different theories in the same study; finally 'methodological triangulation' involves using different methods to study a topic.

UNIVARIATE ANALYSIS The analysis of single variables.

VALIDITY The degree to which a method accurately reflects or assesses the specific concept that the researcher is attempting to measure, e.g. a respondent's attitude towards a person, thing or event.

VARIABLE (NOMINAL, ORDINAL AND INTERVAL) The characteristics that vary among individuals. These are typically expressed in nominal, ordinal and interval forms.

WORKING HYPOTHESIS A statement concerning the presumed relationship between two (or more)

variables; e.g. in the working hypothesis ‘women have a higher fear of crime than men’ the two variables held to possess a relationship are gender and fear of crime. A working hypothesis is developed by a researcher as a result of conducting a literature review of their research topic. The working hypothesis must be turned into a null hypothesis – e.g. ‘there is no relationship between gender and fear of crime’ – and subjected to a correlation test using an appropriate measure of association, as well as an appropriate data-set robustness test using a measure of significance to check for the possible presence of sampling error.