6 EDITION

THE PRACTICE OF RESEARCH IN CRIMINOLOGY AND CRIMINAL JUSTICE

Ronet D. Bachman • Russell K. Schutt

The Practice of Research in Criminology and Criminal Justice

Sixth Edition

In loving memory of two pioneer women who homesteaded on the prairie in South Dakota and instilled in me the importance of education and lifelong learning:

To my great-aunt, Martha Geiken Lund, 1912–2002

and

To my grandmother, Anna Geiken Bachman, 1907–1989

—R. B.

To Elizabeth and Julia

—R. K. S.

The Practice of Research in Criminology and Criminal Justice

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16 17 18 19 20 10 9 8 7 6 5 4 3 2 1

Brief Contents

Preface xv

Acknowledgments xx

About the Authors xxii

SECTION I: FOUNDATIONS FOR SOCIAL RESEARCH 1

Chapter 1. Science, Society, and Criminological Research 2

Chapter 2. The Process and Problems of Criminological Research 29

Chapter 3. Research Ethics 60

SECTION II: FUNDAMENTALS OF RESEARCH 85

Chapter 4. Conceptualization and Measurement 86

Chapter 5. Sampling 115

Chapter 6. Causation and Research Design 147

SECTION III: RESEARCH DESIGNS 175

Chapter 7. Experimental Designs 176

Chapter 8. Survey Research 207

Chapter 9. Qualitative Methods: Observing, Participating, and Listening 251

Chapter 10. Analyzing Content: Secondary Data Analysis, Comparative Analysis, Content Analysis, Crime Mapping, and Big Data 286

Chapter 11. Evaluation and Policy Analysis 318

Chapter 12. Mixing and Comparing Methods 354

SECTION IV: AFTER THE DATA ARE COLLECTED 374

Chapter 13. Quantitative Data Analysis 375

Chapter 14. Analyzing Qualitative Data 417

Chapter 15. Reporting Research Results 441

Appendix A: Questions to Ask About a Research Article 461

Appendix B: How to Read a Research Article 463

On Student Study Site: edge.sagepub.com/bachmanprccj6e

Appendix C: How to Use a Statistical Package: IBM SPSS Statistics

Appendix D: How to Use a Data Spreadsheet: Excel

Appendix E: Datasets

Glossary 482

References 495

Index 509

Detailed Contents

Preface xv

Acknowledgments xx

About the Authors xxii

SECTION I: FOUNDATIONS FOR SOCIAL RESEARCH 1

1. Science, Society, and Criminological Research 2

Reasoning About the Social World 3
Questions and Answers 4
Everyday Errors in Reasoning 4
Overgeneralization 5
Selective or Inaccurate Observation 5
Illogical Reasoning 6
Resistance to Change 7
The Social Science Approach 8
Science Versus Pseudoscience 8
Motives for Criminological Research 9
Social Criminological Research in Practice 10
Case Study of Description: How Prevalent Is Youth Violence? 11
Case Study of Exploration: How Did Schools Avert a Shooting Rampage? 12
Case Study of Explanation: What Factors Are Related to Youth Delinquency and Violence? 13
Case Study of Evaluation: How Effective Are Violence Prevention Programs in Schools? 13
Social Research Philosophies 14
Positivism and Postpositivism 14
Positivist Research Guidelines 15
A Positivist Research Goal: Advancing Knowledge 16
Interpretivism and Constructivism 16
Interpretivist/Constructivist Research Guidelines 18
An Interpretivist Research Goal: Creating Change 18
An Integrated Philosophy 19
Quantitative and Qualitative Methods 20
Specific Types of Research Methods 21
Careers and Research 22
Strengths and Limitations of Social Research 23
Research in the News: A School Shooting Every Week? 24
Conclusion 25
- Key Terms 25
- Highlights 25
- Exercises 26
- Developing A Research Proposal 26
- Web Exercises 27
- Ethics Exercises 27
- SPSS or Excel Exercises 27

2. The Process and Problems of Criminological Research 29

Criminological Research Questions 30
Identifying Criminological Research Questions 31
Refining Criminological Research Questions 31
Evaluating Criminological Research Questions 32
Feasibility 32
Social Importance 33
Careers and Research 33
Scientific Relevance 33
Social Research Foundations 34
Searching the Literature 34
Reviewing Research 36
Research in the News: Does Bullying Increase Risk of Suicide for Both Victims and Bullies? 37
A Single-Article Review: Formal and Informal Deterrents to Domestic Violence 38
An Integrated Literature Review: When Does Arrest Matter? 39
The Role of Theory 41
Social Research Strategies 43
Explanatory Research 44
Deductive Research 44
Inductive Research 47

Domestic Violence and the Research Circle 47
Phase 1: Deductive Research 47
Phase 2: Deductive Research 47
Phase 3: Inductive Research 48
Phase 4: Deductive Research 50
Adding Exploration to the Mix 50
Battered Women's Help Seeking 50
Social Research Standards 51
Measurement Validity 52
Generalizability 53
Causal Validity 53
Authenticity 54
Conclusion 54
- Key Terms 55
- Highlights 55
- Exercises 56
- Developing A Research Proposal 56
- Web Exercises 57
- Ethics Exercises 57
- SPSS or Excel Exercises 58

3. Research Ethics 60
Historical Background 64
Ethical Principles 66
Achieving Valid Results 66
Research in the News: Syphilis Experiments in Guatemala 67
Honesty and Openness 67
Careers and Research 68
Protecting Research Participants 69
Avoid Harming Research Participants 70
Obtain Informed Consent 71
Avoid Deception in Research, Except in Limited Circumstances 75
Maintain Privacy and Confidentiality 75
Consider Uses of Research So That Benefits Outweigh Risks 76
Research Involving Special Populations: Prisoners and Children 78
Case Studies: Sexual Solicitation of Adolescents and Milgram Revisted 80
Conclusion 81
- Key Terms 82
- Highlights 82
- Exercises 83
- Developing A Research Proposal 83
- Web Exercises 83
- SPSS or Excel Exercises 84

SECTION II: FUNDAMENTALS OF RESEARCH 85

4. Conceptualization and Measurement 86
Concepts 87
Conceptualization in Practice 88
Case Study: Defining Youth Gangs 88
Case Study: Defining Substance Abuse 89
Case Study: Defining Poverty 89
From Concepts to Variables: Measurment Operations 91
Using Available Data 93
Constructing Questions 93
Making Observations 94
Careers and Research 95
Collecting Unobtrusive Measures 95
Combining Measurement Operations 96
Research in the News: Measuring Race and Ethnicity 96
Case Study: Defining Inmate Misconduct 97
Variables and Levels of Measurement 98
Nominal Level of Measurement 98
Ordinal Level of Measurement 100
Interval Level of Measurement 101
Ratio Level of Measurement 102
The Case of Dichotomies 103
Comparing Levels of Measurement 103
Did We Measure What We Wanted to Measure? 104
Measurement Validity 104
Face Validity 105
Content Validity 105
Criterion Validity 105
Construct Validity 106
Reliability 107
Test-Retest Reliability 107
Interitem Reliability (Internal Consistency) 107
Alternate-Forms Reliability 108
Intraobserver and Interobserver Reliability 108
Ways to Improve Reliability and Validity 109
Conclusion 110
- Key Terms 110
- Highlights 111
- Exercises 111
- Developing A Research Proposal 112

- Web Exercises 112
- Ethics Exercises 112
- SPSS or Excel Exercises 113

5. Sampling 115

Sample Planning 116
The Purpose of Sampling 116
Define Sample Components and the Population 116
Evaluate Generalizability 118
Assess Population Diversity 120
Consider a Census 121
Sampling Methods 122
Probability Sampling Methods 123
Research in the News: Ferguson Police and Racial Bias 124
Simple Random Sampling 125
Systematic Random Sampling 126
Stratified Random Sampling 127
Multistage Cluster Sampling 129
Nonprobability Sampling Methods 130
Availability Sampling 131
Quota Sampling 132
Purposive or Judgment Sampling 133
Snowball Sampling 134
Lessons About Sample Quality 136
Careers and Research 136
Generalizability in Qualitative Research 137
Sampling Distributions 137
Estimating Sampling Error 139
Conclusion 142
- Key Terms 142
- Highlights 143
- Exercises 143
- Developing A Research Proposal 144
- Web Exercises 144
- Ethics Exercises 145
- SPSS or Excel Exercises 145

6. Causation and Research Design 147

Causal Explanation 148
Quantitative (Nomothetic) Causal Explanation 149
Qualitative (Idiographic) Causal Explanation 150
Criteria and Caustions for Nomothetic Causal Explanations 151
Case Study: Media Violence and Violent Behavior 152
Association 152
Time Order 152
Nonspuriousness 153
Mechanism 154
Context 155
Research Designs and Causality 156
Careers and Research 156
True Experiments 157
Causality and True Experimental Designs 157
Nonexperimental Designs 158
Cross-Sectional Designs 158
Case Study: Using Life Calendars: Do Offenders Specialize in Different Crimes? 160
Longitudinal Designs 161
Repeated Cross-Sectional Designs 161
Fixed-Sample Panel Designs 162
Case Study: Offending Over the Life Course 163
Event-Based Designs 164
Determining Causation Using Nonexperimental Designs 165
Case Study: Gender, Social Control, and Crime 165
Units of Analysis and Errors in Causal Reasoning 167
Individual and Group Units of Analysis 167
Research in the News: How to Reduce Crime 168
The Ecological Fallacy and Reductionism 169
Conclusion 170
- Key Terms 170
- Highlights 171
- Exercises 171
- Developing A Research Proposal 172
- Web Exercises 172
- Ethics Exercises 173
- SPSS or Excel Exercises 173

SECTION III: RESEARCH DESIGNS 175

7. Experimental Designs 176

History of Experiments 177
True Experiments 177
Experimental and Comparison Groups 178
Pretest and Posttest Measures 178
Random Assignment 179
Case Study: Prison Classification and Inmate Behavior 182
Case Study: The Effect of Incarceration on Employment 183
Summary: Causality in True Experiments 185

Quasi-Experiments 185
Nonequivalent Control Group Designs 186
Case Study: The Effectiveness of Drug Courts 187
Before-and-After Designs 187
Case Study: The Effects of the Youth Criminal Justice Act 188
Case Study: Reduced Caseload and Intensive Supervision in Probation 189
Ex Post Facto Control Group Designs 190
Case Study: Does an Arrest Increase Delinquency? 190
Summary: Causality in Quasi-Experiments 191
Validity in Experiments 191
Causal (Internal) Validity 192
Selection Bias 192
Endogenous Change 193
Careers and Research 194
External Events 194
Contamination 195
Treatment Misidentification 196
Research in the News: Increase in the Pace of Gun Sprees 197
Generalizability 197
Sample Generalizability 198
Factorial Survey Design 198
Case Study: How Citizens View Police Misconduct 198
Interaction of Testing and Treatment 200
Ethical Issues in Experimental Research 200
Deception 201
Selective Distribution of Benefits 201
Conclusion 202
- Key Terms 203
- Highlights 203
- Exercises 204
- Developing a Research Proposal 204
- Web Exercises 204
- Ethics Exercises 205
- SPSS or Excel Exercises 205

8. Survey Research 207
Survey Research in the Social Sciences 208
Attractive Features of Survey Research 208
Versatility 208
Efficiency 209
Generalizability 209
The Omnibus Survey 209
Questionnaire Development and Assessment 210
Maintain Focus 210
Build on Existing Instruments 210
Consider Translation 211
Case Study: Measuring Violent Victimizations 211
Writing Survey Questions 212
Constructing Clear and Meaningful Questions 213
Avoid Confusing Phrasing and Vagueness 215
Avoid Negatives and Double Negatives 215
Avoid Double-Barreled Questions 216
Avoid Making Either Disagreement or Agreement Disagreeable 216
Additional Guidelines for Fixed-Response Questions 216
Response Choices Should Be Mutually Exclusive 217
Make the Response Categories Exhaustive 217
Utilize Likert-Type Response Categories 218
Minimize Fence Sitting and Floating 218
Utilize Filter Questions 219
Combining Questions Into Indexes 219
Demographic Questions 224
Don't Forget to Pretest! 225
Organization of the Questionnaire 227
Careers and Research 227
Question Order Matters! 228
Organizational Guidelines 229
The Cover Letter 230
Survey Designs 231
Mailed, Self-Administered Surveys 232
Group-Administered Surveys 233
Surveys by Telephone 234
Reaching Sampling Units 234
Maximizing Response to Phone Surveys 234
In-Person Interviews 236
Balancing Rapport and Control 237
Research in the News: The Rise of Cell Phone–Only Households Is Affecting Surveys 238
Maximizing Response to Interviews 238
Electronic Surveys 238
Mixed-Mode Surveys 240
A Comparison of Survey Designs 241

Ethical Issues in Survey Research 243
Protection of Respondents 244
Confidentiality 244
Conclusion 246
- Key Terms 246
- Highlights 247
- Exercises 247
- Developing A Research Proposal 248
- Web Exercises 248
- Ethics Exercises 249
- SPSS or Excel Exercises 249

9. Qualitative Methods: Observing, Participating, and Listening 251
Careers and Research 252
Fundamentals of Qualitative Methods 253
Origins of Qualitative Research 254
Netnography 256
Case Study: Life in a Gang 257
Participant Observation 258
Choosing a Role 258
Complete Observation 258
Participation and Observation 260
Covert Participation 261
Case Study:The Researcher as Hooligan 263
Entering the Field 263
Developing and Maintaining Relationships 264
Sampling People and Events 265
Research in the News: How an FBI Agent Became a Heroin Addict Himself 267
Taking Notes 267
Managing the Personal Dimensions 269
Systematic Observation 270
Case Study: Studying Public Disorder and Crime 270
Intensive Interviewing 273
Establishing and Maintaining a Partnership 273
Case Study: Jurors' Stories of Death 274
Asking Questions and Recording Answers 275
Combining Participant Observation and Intensive Interviewing 276
Focus Groups 276
Case Study: An Analysis of Police Searches 277
Ethical Issues in Qualitative Research 278
Voluntary Participation 278
Subject Well-Being 279
Identity Disclosure 279
Confidentiality 279
Appropriate Boundaries 280
Researcher Safety 280
Conclusion 281
- Key Terms 281
- Highlights 282
- Exercises 282
- Developing A Research Proposal 283
- Web Exercises 283
- Ethics Exercises 283
- SPSS or Excel Exercises 284

10. Analyzing Content: Secondary Data Analysis, Comparative Analysis, Content Analysis, Crime Mapping, and Big Data 286
Analyzing Secondary Data 287
Case Study: Police Protection by Neighborhood 289
Comparative Methods 290
Case Study: Homicide Across Nations 291
Research in the News: Data on Rape in the European Union Difficult to Compare 293
Content Analysis 293
Identifying a Population of Documents or Other Textual Sources 294
Case Study: Media Portrayals of Abducted Children 295
Crime Mapping 298
Careers and Research 299
Case Study: Social Disorganization and the Chicago School 300
Case Study: Gang Homicides in St. Louis 302
Case Study: Using Google Earth to Track Sexual Offending Recidivism 305
Big Data 306
Case Study: Predicting Where Crime Will Occur 307
Case Study: Predicting Recidivism With Big Data 309
Methodological Issues When Using Secondary Data 309
Measuring Across Contexts 310
Sampling Across Time and Place 311
Identifying Causes 311
Ethical Issues When Analyzing Available Data and Content 312
Conclusion 313

- Key Terms 314
- Highlights 314
- Exercises 314
- Developing a Research Proposal 315
- Web Exercises 315
- Ethics Exercises 316
- SPSS or Excel Exercises 316

11. Evaluation and Policy Analysis 318

A Brief History of Evaluation Research 319
Evaluation Basics 320
Questions for Evaluation Research 321
The Evaluation of Need, or Needs Assessment 321
Evaluability Assessment 322
Research in the News: Predicting Criminal Propensity 322
Process Evaluation (Program Monitoring) 323
Case Study: Family Justice Center Initiative 323
Case Study: Process Evaluation of an Anti-Gang Initiative 326
The Evaluation of Impact or Outcomes 328
Case Study: How Does the Risk Skills Training Program (RSTP) Compare to D.A.R.E.? 329
The Evaluation of Efficiency 331
Case Study: Cost-Benefit Analysis of Therapeutic Communities 331
Design Decisions 332
Black Box Evaluation or Program Theory? 332
Researcher or Stakeholder Orientation? 333
Simple or Complex Outcomes? 335
Evaluation in Action 336
Case Study: Problem-Oriented Policing in Violent Crime Areas—A Randomized Controlled Experiment 336
Strengths of Randomized Experimental Design in Impact Evaluations 338
Quasi-Experimental Designs in Evaluation Research 339
Case Study: Decreasing Injuries From Police Use of Force 340
Case Study: Drinking and Homicide in Eastern Europe 340
Nonexperimental Designs 342
Case Study: Vocational Education for Serious Juvenile Offenders—A One-Shot Design 342
Qualitative and Quantitative Methods 343
Policy Research: Increasing Demand for Evidence-Based Policy 344
Careers and Research 346
Basic Science or Applied Research 346
Ethics in Evaluation 348
Conclusion 349
- Key Terms 350
- Highlights 350
- Exercises 351
- Developing a Research Proposal 351
- Web Exercises 351
- Ethics Exercises 352
- SPSS or Excel Exercises 352

12. Mixing and Comparing Methods 354

What Are Mixed Methods? 356
Should Methods Be Mixed? 356
Types of Mixed-Methods Designs 357
Case Study of Convergent Parallel Design: School Security and Discipline 360
Case Study of Exploratory Sequential Design: American Indian Homicide 360
Case Study of Embedded Design: Investigating Rape 362
Strengths and Limitations of Mixed Methods 363
Comparing Results Across Studies 364
Meta-Analysis 364
Research in the News: Are Youth Desensitized to Violence? 365
Case Study of Meta-Analysis: The Effectiveness of Antibullying Programs 366
Case Study of Meta-Analysis: Do Parent Training Programs Prevent Child Abuse? 367
Meta-Synthesis 367
Case Study of Meta-Synthesis: Female Drug Dealers 367
Ethics and Mixed Methods 368
Careers and Research 369
Conclusion 370
- Key Terms 371
- Highlights 371
- Exercises 371
- Developing a Research Proposal 372
- Web Exercises 372
- Ethics Exercises 372
- SPSS or Excel Exercises 372

SECTION IV: AFTER THE DATA ARE COLLECTED 374

13. Quantitative Data Analysis 375
Introducing Statistics 376
Case Study: The Causes of Delinquency 377
Preparing Data for Analysis 378
Displaying Univariate Distributions 379
Graphs 380
Frequency Distributions 382
Ungrouped Data 382
Grouped Data 384
Summarizing Univariate Distributions 388
Measures of Central Tendency 388
Mode 388
Median 389
Mean 391
Median or Mean? 393
Research in the News: Median Lifetime Earnings 394
Measures of Variation 395
Range 395
Interquartile Range 396
Variance 396
Standard Deviation 397
Cross-Tabulating Variables 398
Describing Association 400
Controlling for a Third Variable 403
Intervening Variables 403
Extraneous Variables 404
Specification 405
Regression and Correlation 407
Careers and Research 411
Analyzing Data Ethically: How Not to Lie About Relationships 411
Conclusion 412
- Key Terms 412
- Highlights 413
- exercises 413
- Developing A Research Proposal 414
- Web Exercises 414
- Ethics Exercises 415
- SPSS or Excel Exercises 415

14. Analyzing Qualitative Data 417
Features of Qualitative Data Analysis 418
Research in the News: Devastating Consequences for Syrian Children 419
Qualitative Compared With Quantitave Data Analysis 419
Techniques of Qualitative Data Analysis 420
Documentation 421
Conceptualization, Coding, and Categorizing 422
Examining Relationships and Displaying Data 423
Corroboration/Authenticating Conclusions 424
Reflexivity 425
Alternatives in Qualitative Data Analysis 425
Ethnography 426
Ethnomethodology 426
Conversation Analysis 426
Narrative Analysis 427
Grounded Theory 428
Qualitative Comparative Analysis 430
Careers and Research 431
Case-Oriented Understanding 432
Computer-Assisted Qualitative Data Analysis 432
Case Study: Narratives of Desistance from Crime and Substance Abuse 433
Ethics in Qualitative Data Analysis 436
Conclusion 437
- Key Terms 438
- Highlights 438
- exercises 439
- Developing A Research Proposal 439
- Web Exercises 439
- Ethics Exercises 439

15. Reporting Research Results 441
Research Report Goals 442
Advance Scientific Knowledge 442
Shape Social Policy 443
Organize Social Action—Participatory Action Research 443
Case Study: Seeking Higher Education for Inmates 444
Dialogue With Research Subjects 444
On Writing Research 445
Careers and Research 446
Research Report Types 446
Student Papers and Theses 447
Group Projects 447
The Thesis Committee 447
Journal Articles 447
Applied Reports 449
An Advisory Committee 449
Displaying Research 450
Special Considerations for Reporting Qualitative or Mixed-Methods Research 450

Ethics, Politics, and Reporting Research 453
Communicating With the Public 454
Research in the News: What's Behind Big Science Frauds 455
Plagiarism 455
Conclusion 456
- Key Terms 457
- Highlights 457
- Exercises 458
- Developing A Research Proposal 458
- Web Exercises 458
- Ethics Exercises 459
- SPSS or Excel Exercises 459

Appendix A: Questions to Ask About a Research Article 461

Appendix B: How to Read a Research Article 463

On Student Study Site: edge.sagepub.com/bachmanprccj6e

Appendix C: How to Use a Statistical Package: IBM SPSS Statistics

Appendix D: How to Use a Data Spreadsheet: Excel

Appendix E: Data Sets

Glossary 482

References 495

Index 509

Preface

One of the most important aspects of teaching a research methods course is conveying to students the vital role that research plays in our discipline. After years of teaching courses in research methods, we have found that the best avenue of achieving this goal has been to link the teaching of key topics to contemporary research in the discipline. By combining discussions of research techniques with practical research examples from the field, students learn not only how to conduct research but also why it is important to do so. In the sixth edition of *The Practice of Research in Criminology and Criminal Justice*, we have drawn on comments by students in the classroom, insightful reviews by those who teach research methods, and our own continuing learning experience as scholars and teachers; we think the resulting innovations will add a great deal to your learning experience.

The purpose of this book is to introduce you to the scientific methods of research in criminology and criminal justice and show how they are actually used. Each chapter combines instructions in research methods with investigations of key research questions in our field: How do we measure offending and victimization? What are the causes of violent crime? What is the best police response to intimate partner violence? How do gang members perceive their world? Are violence prevention programs effective in reducing violence in schools? What is the impact of having a criminal record on finding a job? These are just a sample of the many research examples used to demonstrate particular research methods.

You will learn not only the skills necessary for conducting research, but also the skills necessary to evaluate research done by others. You will learn to ask many questions as you consider whether research-based conclusions are appropriate and valid. What did the researchers set out to investigate? How were people or places selected for the study? What were the phenomena being studied, and how were they defined and measured? How was information analyzed? Throughout this book, you will learn what questions to ask when critiquing a research study and how to evaluate the answers.

Another goal of this book is to train you to actually do research. Substantive research examples will help you see how methods are used in practice. Exercises at the end of each chapter give you ways to try different methods alone or in a group. But research methods cannot be learned by rote and applied mechanically. It is our hope that you will realize that all research methods come with their own strengths and limitations. In fact, the underlying theme of our book is that employing a combination of methods together to answer the same research question is often preferable. You will come to appreciate why the results of particular research studies must always be interpreted within the context of prior research and through the lens of social and criminological theory.

Organization of the Book

The way this book is organized reflects our beliefs in making research methods interesting, teaching students how to critique research, and viewing specific research techniques as parts of an integrated research strategy. Our concern with ethical issues in all types of research is underscored by the fact that we have an entire chapter devoted exclusively to research ethics in addition to sections on ethics in every methodology chapter.

This new edition is organized into four sections. The first, Foundations for Social Research, includes the first three chapters and introduces the why and how of research in general. Chapter 1 shows how research has helped us understand the magnitude of and the factors related to youth violence. It introduces the different types of research questions along with the contrast between positivist and interpretivist philosophies and quantitative and qualitative methods. Chapter 2 illustrates the basic stages of research with a series of experiments on the police response to intimate partner violence. This chapter emphasizes the role of theory in guiding research and describes the

deductive and inductive research process that resembles more of a spiral than a circle. Chapter 3 highlights issues of research ethics by taking you inside Philip Zimbardo's prison experiment and Stanley Milgram's research on obedience to authority. It also highlights the special ethical considerations related to children and prisoners. The next three chapters, Fundamentals of Research, discuss how to evaluate the way researchers design their measures (Chapter 4), select their samples (Chapter 5), and justify their statements about causal connections (Chapter 6).

In the next section, Research Designs, we present the primary strategies used in research. Chapters 7 through 9 present the three most important methods of data collection: experiments, surveys, and qualitative methods (including participant observation, intensive interviews, and focus groups). Chapter 10 examines methodologies that rely on existing content and includes a discussion of secondary data analysis, content analysis, and crime mapping, and a new section on big data. Chapter 11 covers evaluation research and policy analysis and highlights the different alternatives to evaluation along with a discussion of the most appropriate methods to use for each evaluation question (e.g., process versus impact). In this chapter, you will see how various methods have been used to investigate the effects of several programs and policies, including problem-oriented policing, boot camps, and mandatory sentencing laws. There are several examples within each of these methods chapters that use a mixed-methods approach to answer the same research question. However, because researchers are increasingly combining methods, Chapter 12 provides an overview of the philosophy and motivation for combining methods, the various techniques for doing so, and some exciting research examples to demonstrate the fruitfulness of such multiple methods projects.

The final section of the book, After the Data Are Collected, summarizes issues related to data analysis and writing. Chapter 13 describes quantitative data analysis, with an emphasis on description, while a new Chapter (14) highlights the philosophies and practice of qualitative data analysis. We finish up in Chapter 15 with an overview of the process of and techniques for reporting research results along with some ethical problems in writing.

The substantive studies in each of these chapters show how each methodology has been used to improve our understanding of criminal justice–related issues, including the factors related to violence, how question wording affects estimates of victimization in surveys, how gang members perceive their world, how community police officers describe their role in comparison to that of regular patrol officers, the perceptions of jurors who have participated in a death penalty case, the effects of inmates' classification on institutional misconduct in prison, and the effects of war on violence in a cross-national comparison, to name just a few of the examples provided.

Distinctive Features of the Sixth Edition

The sixth edition of *The Practice of Research for Criminology and Criminal Justice* retains the strengths of previous editions while breaking new ground with newly popular research methods, enhanced tools for learning in the text and online, and contemporary, fascinating research findings. We have reorganized the chapters to better connect related techniques, and we have provided new pedagogical learning aids at the end of each chapter and on our student study website. The most distinctive feature of this text compared to others in the field continues to be the integration into each chapter of in-depth substantive research examples from the real world highlighting researchers' decision-making processes in their own words. Examples from the literature are not simply dropped here and there to keep students' attention. Rather, each chapter presents a particular research method in the context of a substantive research story. This serves several purposes: It illustrates the process of research in the real world, it underscores why particular methods were selected over others, and it highlights the important role research plays in policy decisions in our field. This book's success is due in no small measure to the availability of so many excellent research examples in our discipline. New examples of research have been added in all data collection chapters. The following points are additional strengths of this text along with a few innovations in this edition:

Updated ethics chapter. We've added new sections in the ethics chapter on the additional considerations for doing research with children and prisoners. We have also added some contemporary examples of covert participation research that highlights the ethical dilemmas encountered when informed consent would compromise the research objectives.

Revision of the survey methods chapter. We now illustrate questionnaire design using as case studies the National Crime Victimization Survey of the Bureau of Justice Statistics and the National Intimate Partner and Sexual Violence Survey from the Centers for Disease Control and Prevention.

New sections throughout reflecting recent developments in research methods. We have expanded our section on crime mapping in Chapter 10 and have added a section that introduces the use of big data, and how big data is being used to prevent both recidivism and crime by criminal justice agencies. Other updates that reflect increased attention to the Internet as an avenue for research include electronic surveys, growing reliance on smartphones, use of social media, and the use of the Internet in qualitative techniques.

Updated examples of criminological research as they occur in real-world settings. We have incorporated contemporary and interesting studies taken from the literature on a variety of topics, including the effects of incarceration on employment, the effects of police wearing body cameras on both police and citizen injury, the perceptions of citizens regarding police misconduct, and an investigation into the lives of at-risk (at-promise) youth in Oakland, California, through the work of Victor Rios, to name just a few. These real-world research examples illustrate the exigencies and complexities that shape the application of research methods.

Increased focus on international research. We have expanded our use of research conducted in countries around the globe and have continued our focus on issues involving diversity in race, ethnicity, gender, and culture within the United States and in other countries. This includes a new article in Appendix B, "How to Read a Research Article," that highlights a study that uses self-control theory to explain delinquency in China.

A new chapter on qualitative data analysis. We have added a new chapter on qualitative data analysis (Chapter 14) that summarizes the different techniques of qualitative data analysis. Using a case study of interviews with drug-involved offenders, we highlight how the qualitative data software program NVivo[1] helps researchers organize and analyze qualitative data.

Careers and research. A new feature in each chapter highlights the career of a researcher who has used the methods discussed. Researchers include those with bachelor's, master's, and doctoral degrees who are now working in the field. What better incentive to study hard and master these methods!

New learning tools. The updated *Research in the News* highlights in each chapter include two questions to help you think about the methodological issues. End-of-chapter exercises now include two questions that refer to a chapter-specific video posted on the Student Study Site, in which researchers discuss their experiences with a method presented in that chapter. New empirical datasets are now included in the Student Study Site, and each chapter contains new IBM® SPSS® Statistics[2] or Excel exercises that correspond to the chapter material. Subsets of data included in the study site include: 2013 Youth Risk Behavior Survey, 2014 General Social Survey, 2013 Monitoring the Future Data, NCVS lone offender assault data for 1992 through 2013, and a 2012 state-level dataset with social and crime indicators.

Aids to effective study. The many effective study aids included in the previous editions have been updated as needed. Lists of main points and key terms provide quick summaries at the end of each chapter. In addition, key terms are highlighted in boldface type when first introduced and defined in text. Definitions for these also can be found in the glossary at the end of the book.

It is a privilege to share with you the results of excellent research related to criminal justice and criminology. If this book communicates the excitement of research and the importance of evaluating carefully the methods we use in research, then we have succeeded in representing what social scientists do who are interested in issues related to

1. NVivo is a trademark or registered trademark of QSR International Pty Ltd.

2. SPSS is a registered trademark of International Business Machines Corporation.

criminal justice and criminology. We think it conveys the latest developments in research methodology and thereby demonstrates that researchers are committed to evaluating and improving their own methods of investigation.

We hope you enjoy learning how to investigate research questions related to criminal justice and criminology and perhaps do some research of your own along the way. We guarantee that the knowledge you develop about research methods will serve you well throughout your education, in your career, and in your community.

Ancillaries

Instructor Teaching Site

A password-protected instructor teaching site is available at edge.sagepub.com/bachmanprccj6e. **SAGE edge for Instructors** supports your teaching by making it easy to integrate quality content and create a rich learning environment for students.

- **Test banks** provide a diverse range of prewritten options as well as the opportunity to edit any question and/or insert your own personalized questions to effectively assess students' progress and understanding.
- **Sample course syllabi** for semester and quarter courses provide suggested models for structuring your courses.
- Editable, chapter-specific **PowerPoint slides** offer complete flexibility for creating a multimedia presentation for your course.
- EXCLUSIVE! Full-text **SAGE journal articles** have been carefully selected to support and expand on the concepts presented in each chapter.
- **Video and multimedia links** includes original SAGE videos that appeal to students with different learning styles.
- **Lecture notes** summarize key concepts by chapter to help you prepare for lectures and class discussions.
- Suggested **student group projects and mini-projects** designed to promote students' in-depth engagement with course material.
- **Tables, figures, and exhibits** from the printed book available in an easily-downloadable format for use in papers, hand-outs, and presentations.

Companion Student Study Site

This web-based Student Study Site, available at edge.sagepub.com/bachmanprccj6e, provides a variety of additional resources to enhance students' understanding of the book content and take their learning one step further. **SAGE edge for Students** provides a personalized approach to help students complete their coursework goals in an easy-to-use learning environment.

- Mobile-friendly **eFlashcards** strengthen understanding of key terms and concepts.
- Mobile-friendly practice **quizzes** allow for independent assessment by students of their mastery of course material.
- A customized online **action plan** includes tips and feedback on progress through the course and materials, allowing students to individualize their learning experience.

- **Web exercises** facilitate student use of Internet resources, further exploration of topics, and responses to critical thinking questions.
- EXCLUSIVE! Full-text **SAGE journal articles** have been carefully selected to support and expand on the concepts presented in each chapter.
- **Video and multimedia links** includes original SAGE videos that appeal to students with different learning styles.
- **SPSS Student Datasets, SPSS Datasets, and Codebooks** to be used to answer the SPSS exercises at the end of each chapter.
- And more, including real crime data (including subsets of data from the National Crime Victimization Survey and the General Social Survey) and appendices on how to use a statistical package and how to use a qualitative analysis package.

A Note About Using IBM SPSS Statistics*

To carry out the SPSS exercises at the end of each chapter, you must have SPSS installed on your computer. The Student Study Site includes several subsets of data that are listed above. Appendix C will get you up and running with SPSS for Windows as will Appendix D with Excel. You then may spend as much time as you like exploring the datasets provided, or you may even use your own data. You also may carry out analyses of the General Social Survey at the University of California, Berkeley, website (http://sda.berkeley.edu/archive.htm).

*IBM SPSS Statistics was formerly called PASW® Statistics.

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Russell K. Schutt, PhD, is a professor and the chair of sociology at the University of Massachusetts, Boston, and a lecturer on sociology in the Department of Psychiatry at the Harvard Medical School (Massachusetts Mental Health Center). He completed his BA, MA, and PhD (1977) at the University of Illinois at Chicago and a postdoctoral fellowship in the Sociology of Social Control Training Program at Yale University (1977–1979). His other books include *Investigating the Social World: The Process and Practice of Research* and *Fundamentals of Social Work Research* (with Ray Engel), *Making Sense of the Social World* (with Dan Chambliss), and *Research Methods in Psychology* (with Paul G. Nestor)—all with SAGE Publications, as well as *Homelessness, Housing, and Mental Illness* (Harvard University Press) and *Social Neuroscience: Brain, Mind, and Society* (coedited with Larry J. Seidman and Matcheri S. Keshavan, also Harvard University Press). Most of his peer-reviewed journal articles and book chapters focus on the effect of social context on cognition, satisfaction, functioning, and recidivism, the orientations of service recipients and of service and criminal justice personnel, and the organization of health and social services. He is currently a coinvestigator for a randomized trial of peer support for homeless dually diagnosed veterans, funded by the Veterans Administration.

Section I: Foundations for Social Research

CHAPTER 1

Science, Society, and Criminological Research

LEARNING OBJECTIVES

1. Describe the four common errors in everyday reasoning.
2. Define social science compared to pseudoscience.
3. Explain the motivations of social research.
4. Identify the four types of social research.
5. Explain the difference between each orientation in the following pairs of alternatives in social research: positivist or constructivist, quantitative or qualitative.

The population of the United States all too frequently mourns the deaths of young innocent lives taken in school shootings. The deadliest elementary school shooting to date took place on December 14, 2012, when a 20-year-old man named Adam Lanza walked into an elementary school in Newtown, Connecticut, armed with several semiautomatic weapons, and killed 20 children and 6 adults. On April 16, 2007, Cho Seung-Hui perpetrated the deadliest college mass shooting when he killed 32 students, faculty, and staff and left over 30 others injured on the campus of Virginia Tech in Blacksburg, Virginia. Cho was armed with two semiautomatic handguns that he had legally purchased and a vest filled with ammunition. As police were closing in on the scene, he killed himself. The deadliest high school shooting occurred on April 20, 1999, when Eric Harris and Dylan Klebold killed 12 students and a teacher before killing themselves at Columbine High School in suburban Colorado.

None of these mass murderers was a typical terrorist, and each of these incidents caused a media frenzy. Headlines such as "The School Violence Crisis" and "School Crime Epidemic" were plastered across national newspapers and weekly news journals. Unfortunately, the media play a large role in how we perceive both problems and solutions. In fact, 95% of

Americans say that mass media sources such as television and newspapers are their main source of information on crime and violence (Surrette 1998). What are your perceptions of violence committed by youth, and how did you acquire them? What do you believe are the causes of youth violence? Many factors have been blamed for youth violence in American society, including the easy availability of guns, the lack of guns in classrooms for protection, the use of weapons in movies and television, the moral decay of our nation, poor parenting, unaware teachers, school and class size, racial prejudice, teenage alienation, the Internet and the World Wide Web, anti-Semitism, and rap and rock music, and the list goes on.

You probably have your own ideas about the factors related to violence in general and youth violence in particular. However, these beliefs may not always be supported by empirical research. In fact, the factors often touted by politicians and the media to be related to violence are not always supported by empirical evidence. In the rest of this chapter, you will learn how the methods of social science research go beyond stories in the popular media to help us answer questions like "What are the causes of youth violence?" By the chapter's end, you should understand how scientific methods used in criminal justice and criminology can help us understand and answer research questions in this discipline.

Reasoning About the Social World

The story of just one murderous youth raises many questions. Take a few minutes to read each of the following questions about one of the Columbine High School shooters, and jot down your answers. Don't ruminate about the questions or worry about your responses. This is not a test; there are no wrong answers.

- How would you describe Eric Harris?
- Why do you think Eric Harris wanted to kill other students?
- Was Eric Harris typical of other murderers under 18 years of age?
- In general, why do people become murderers?
- How have you learned about youth violence?

Now let us consider the possible answers to some of these questions. The information about Eric Harris is somewhat inconsistent (Duggan, Shear, and Fisher 1999). He was the 18-year-old son of middle-class professionals. He had an older brother who attended the University of Colorado. Harris apparently thought of himself as a white supremacist, but he also loved music by antiracist rock bands. On his web page, he quoted KMFDM, a German rock band whose song "Waste" includes these lyrics: "What I don't say I don't do. What I don't do I don't like. What I don't like I waste." Online, Harris referred to himself as "Darkness."

Do you have enough information now to understand why he went on a shooting rampage in his school?

A year before the shootings at Columbine High School, Harris was arrested on a felony count of breaking into a car. A juvenile court put him on probation, required him to perform community service and take criminal justice classes, and sent him to a school counseling program. He was described by one of his probation officers as a "very bright young man who is likely to succeed in life."

Now can you construct an adequate description of Eric Harris? Can you explain the reason for his murderous rampage? Or do you feel you need to know more about Eric Harris, about his friends and the family he grew up in? How about his experiences in school and with the criminal justice system? We have attempted to investigate just one person's experiences, and already our investigation is spawning more questions than answers.

Questions and Answers

We cannot avoid asking questions about the actions and attitudes of others. We all try to make sense of the complexities of our social world and our position in it, in which we have quite a personal stake. In fact, the more you "think like a social scientist," the more questions will come to mind.

But why does each question have so many possible answers? Surely our individual perspectives play a role. One person may see a homicide offender as a victim of circumstance, while another person may see the same individual as inherently evil. Answers to questions we ask in the criminological sciences vary because individual life experiences and circumstances vary. When questions concern not just one person but many people or general social processes, the number of possible answers quickly multiplies. In fact, people have very different beliefs about the factors responsible for mass shootings. Exhibit 1.1 displays Gallup Poll results from the following question: "Thinking about mass shootings that have occurred in the U.S. in recent years, from what you know or have read, how much do you think each of the following factors is to blame for the shootings?" As you can see, a large percentage blame the mental health system; four out of ten blame easy access to guns as well, but nearly one out of five blame inflammatory language from political commentators.

Everyday Errors in Reasoning

People give different answers to research questions for yet another reason: It is simply too easy to make errors in logic, particularly when we are analyzing the social world in which we ourselves are conscious participants. We can call some of these "everyday errors," because they occur so frequently in the nonscientific, unreflective discourse about the social world that we hear on a daily basis.

For evidence of everyday errors, just listen to your conversations or the conversations of others for one day. At some point in the day, it is inevitable that you or someone you are talking with will say something like, "Well, I knew a person who did X, and Y happened." From this one piece of information, you draw a conclusion about the likelihood of Y. Four

Exhibit 1.1 **Responses to the Question, "Thinking about mass shootings that have occurred in the U.S. in recent years, from what you know or have read, how much do you think each of the following factors is to blame for the shootings?"**

	Great deal	*Fair amount*	*Not much*	*Not at all*
	%	%	%	%
Failure of the mental health system to identify individuals who are a danger to others	48	32	11	8
Easy access to guns	40	21	16	20
Drug use	37	29	17	15
Violence in movies, video games, and music lyrics	32	24	23	20
The spread of extremist viewpoints on the Internet	29	28	22	15
Insufficient security at public buildings including businesses and schools	29	29	26	14
Inflammatory language from prominent political commentators	18	19	30	28

Source: Reprinted with permission from Gallup.

general errors in everyday reasoning can be made: overgeneralization, selective or inaccurate observation, illogical reasoning, and resistance to change.

Overgeneralization

Overgeneralization, an error in reasoning, occurs when we conclude that what we have observed or what we know to be true for some cases is true for all cases. We are always drawing conclusions about people and social processes from our own interactions with them, but sometimes we forget that our experiences are limited. The social (and natural) world is, after all, a complex place. We have the ability (and inclination) to interact with just a small fraction of the individuals who inhabit the social world, especially in a limited span of time.

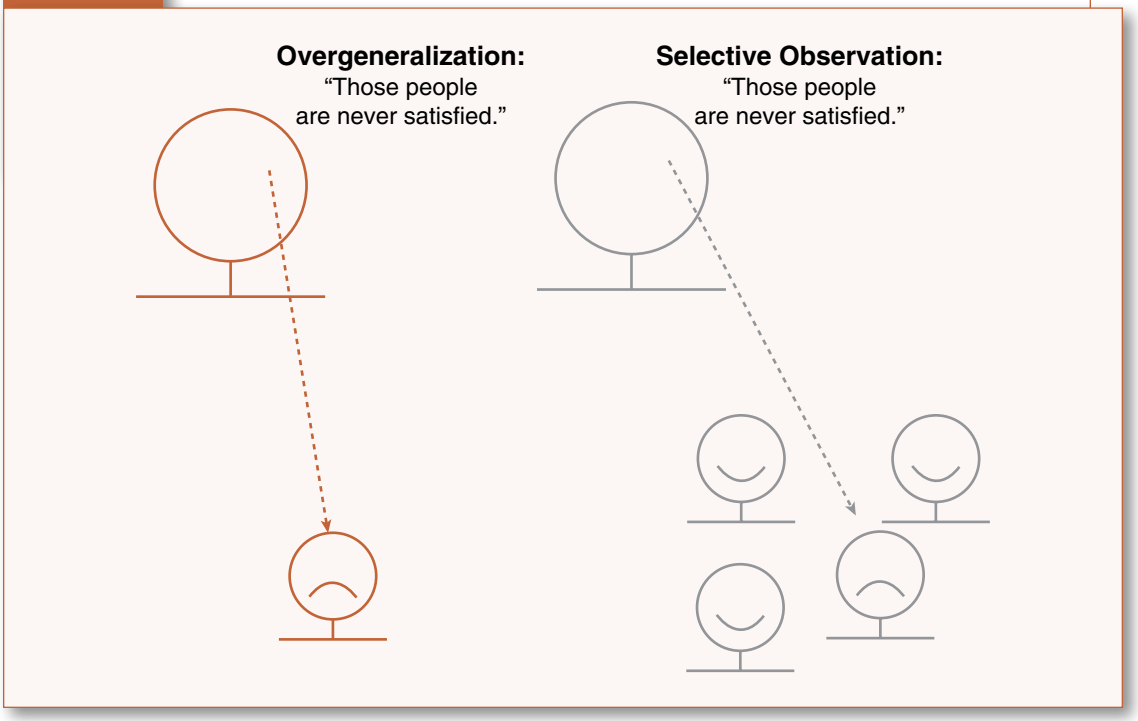
Overgeneralization: An error in reasoning that occurs when we conclude that what we have observed or know to be true for a subset of cases holds true for the entire set.

Selective or Inaccurate Observation

Selective observation is choosing to look only at things that are in accordance with our preferences or beliefs. When we are inclined to criticize individuals or institutions, it is all too easy to notice their every failing. For example, if we are convinced in advance that all kids who are violent are unlikely to be rehabilitated and will go on to commit violent offenses in adulthood, we will probably find many confirming instances. But what about other youths who have become productive and stable citizens after engaging in violence as adolescents? Or the child who was physically or sexually abused and joined a gang to satisfy the need for a family surrogate? If we acknowledge only the instances that confirm our predispositions, we are victims of our own selective observation. Exhibit 1.2 depicts the difference between selective observation and overgeneralization.

Selective observation: Observations chosen because they are in accord with preferences or beliefs of the observer.

Exhibit 1.2 The Difference Between Overgeneralization and Selective Observation



Recent research on cognitive functioning (how the brain works) helps explain why our feelings so readily shape our perceptions (Seidman 1997). Emotional responses to external stimuli travel a shorter circuit in the brain than do reasoned responses (see Exhibit 1.3). The result, according to some cognitive scientists, is "What something reminds us of can be far more important than what it is" (Goleman 1995, 294–95). Our emotions can influence us even before we begin to reason about what we have observed.

Inaccurate observation: Observations based on faulty perceptions of empirical reality.

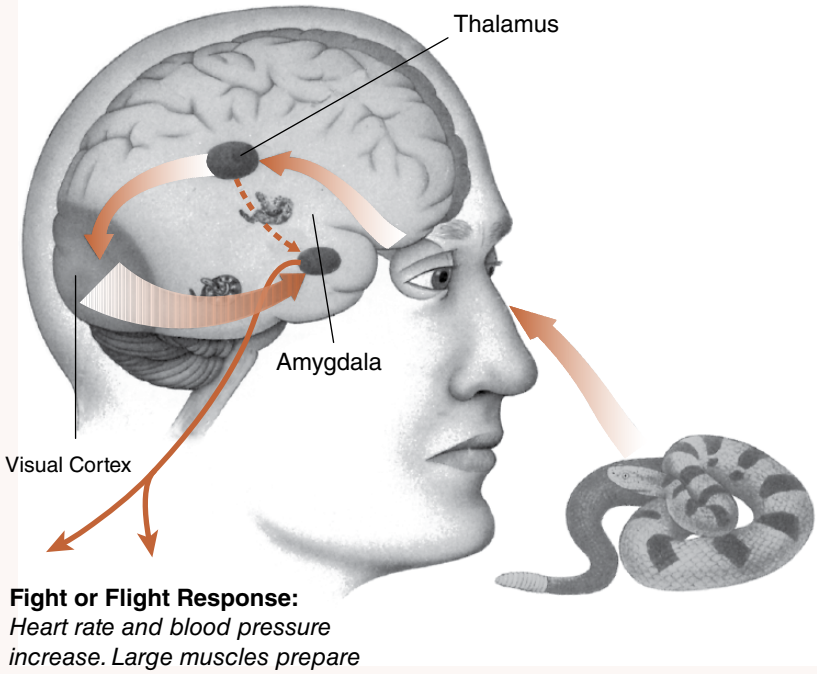
Our observations also can simply be inaccurate. If a woman says she is *hungry* and we think she said she is *hunted,* we have made an **inaccurate observation**. If we think five people are standing on a street corner when seven actually are, we have made an inaccurate observation. Such errors occur often in casual conversation and in everyday observation of the world around us. In fact, our perceptions do not provide a direct window onto the world around us, for what we think we have sensed is not necessarily what we have seen (or heard, smelled, felt, or tasted). Even when our senses are functioning fully, our minds have to interpret what we have sensed (Humphrey 1992). For example, when looking at the optical illusion in Exhibit 1.4, your visual system deceives you so that the monster in the background seems larger, even though the two monsters are exactly the same size.

Illogical Reasoning

Illogical reasoning: Prematurely jumping to conclusions and arguing on the basis of invalid assumptions.

When we prematurely jump to conclusions or argue on the basis of invalid assumptions, we are using **illogical reasoning**. For example, it is not reasonable to propose that depictions of violence in media such as television and movies cause violence if evidence indicates that the majority of those who watch such programs do not become violent. However, it is also illogical to assume that media depictions of

Exhibit 1.3 Anatomy of an Emotional Hijacking



Fight or Flight Response: *Heart rate and blood pressure increase. Large muscles prepare for quick action.*

Source: From *Emotional Intelligence* by Daniel Goleman. Copyright © 1995 by Daniel Goleman. Used by permission of Bantam Books, an imprint of Random House, a division of Penguin Random House LLC and Bloomsbury Publishing. All rights reserved.

gratuitous violence have no effect on individuals. Of course, logic that seems impeccable to one person can seem twisted to another; the problem usually is reasoning from different assumptions rather than failing to "think straight."

Resistance to Change

Resistance to change, the reluctance to change our ideas in light of new information, may occur for several reasons:

Ego-based commitments. We all learn to greet with some skepticism the claims by leaders of companies, schools, agencies, and so on that people in their organization are happy, that revenues are growing, that services are being delivered in the best possible way, and so forth. We know how tempting it is to make statements about the social world that conform to our own needs rather than to the observable facts. It also can be difficult to admit that we were wrong once we have staked out a position on an issue.

Excessive devotion to tradition. Some degree of devotion to tradition is necessary for the predictable functioning of society. Social life can be richer and more meaningful if it is allowed to flow along the paths charted by those who have preceded us. But too much devotion to tradition can stifle adaptation to changing circumstances. When we distort our observations or alter our reasoning so that we can maintain beliefs that "were good enough for my grandfather, so they're good enough for me," we hinder our ability to accept new findings and develop new knowledge. The consequences can be deadly, as residents of Hamburg, Germany, might have realized in 1892 (Freedman 1991). Until the last part of the 19th century, people believed that cholera, a potentially lethal disease, was due to minute, inanimate, airborne poison particles (miasmas). In 1850, English researcher John Snow demonstrated that cholera was, in fact, spread by contaminated water. When a cholera epidemic hit Hamburg in 1892, the authorities did what tradition deemed appropriate: digging up and carting away animal carcasses to prevent the generation of more miasmas. Despite their efforts, thousands died. New York City adopted a new approach based on Snow's discovery, which included boiling drinking water and disinfecting sewage. As a result, the death rate in New York City dropped to a tenth of what it had been in a previous epidemic.

Uncritical agreement with authority. If we do not have the courage to evaluate critically the ideas of those in positions of authority, we will have little basis for complaint if they exercise their authority over us in ways we do not like. And if we do not allow new discoveries to call our beliefs into question, our understanding of the social world will remain limited. As we will see in Chapter 3, an extreme example of this problem is obedience to authority figures that can harm and kill others, including acts of genocide.

Now take just a minute to reexamine the beliefs about youth violence that you recorded earlier. Did you grasp at a simple explanation even though reality was far more complex? Were your beliefs influenced by your own ego and feelings about your similarities to or differences from individuals prone to violence? Are your beliefs perhaps based on depictions of violence in the media or fiction? Did you weigh carefully the opinions of authority figures, including politicians, teachers, and even your parents, or just accept or reject those opinions out of hand? Could knowledge of research methods help improve your own understanding of the factors related to violent behavior? By now, we hope that you will see some of the challenges faced by social scientists studying issues related to crime and the criminal justice system.

Exhibit 1.4 **An Optical Illusion**

Resistance to change: Reluctance to change ideas in light of new information, due to ego-based commitments, excessive devotion to tradition, or uncritical agreement with authorities.

You do not have to be a scientist or use sophisticated research techniques to recognize and avoid these four errors in reasoning. If you recognize these errors for what they are and make a conscious effort to avoid them, you can improve your own reasoning. In the process, you will also be heeding the admonishments of your parents (or minister, teacher, or other adviser) to refrain from stereotyping people, to avoid jumping to conclusions, and to look at the big picture. These are the same errors that the methods of social science are designed to help criminologists avoid.

The Social Science Approach

Social science: The use of scientific methods to investigate individuals, societies, and social processes, including questions related to criminology and criminal justice; the knowledge produced by these investigations.

Science: A set of logical, systematic, documented methods for investigating nature and natural processes; the knowledge produced by these investigations.

The **social science** approach to answering questions about the social world is designed to greatly reduce these potential sources of error in everyday reasoning. **Science** relies on logical and systematic methods to answer questions, and it does so in a way that allows others to inspect and evaluate its methods. In the realm of social research, these methods are not so unusual. After all, they involve asking questions, observing social groups, and counting people, which we often do in our everyday lives. However, social scientists develop, refine, apply, and report their understanding of the social world more systematically, or specifically, than Joanna Q. Public does:

- Social science research methods can reduce the likelihood of overgeneralization by using systematic procedures for selecting individuals or groups to study that are representative of the individuals or groups that we wish to generalize.
- Social science methods can reduce the risk of selective or inaccurate observation by requiring that we measure and sample phenomena systematically.
- To avoid illogical reasoning, social researchers use explicit criteria for identifying causes and for determining if these criteria are met in a particular instance.
- Because they require that we base our beliefs on evidence that can be examined and critiqued by others, scientific methods lessen the tendency to develop answers about the social world from ego-based commitments, excessive devotion to tradition, and/or unquestioning respect for authority.

Epistemology: A branch of philosophy that studies how knowledge is gained or acquired.

Transparent: An important feature of the scientific method that requires procedures, methods, and data analyses of any study to be presented clearly for the purposes of replication.

Peer review: A process in which a journal editor sends a submitted article to two or three experts who judge whether the paper should be accepted, revised and resubmitted, or rejected; the experts also provide comments to explain their decision and guide any revisions.

Science Versus Pseudoscience

In philosophical terms, the scientific method represents an **epistemology**, that is, a way of knowing that relies on objective, empirical investigation. Its techniques must be **transparent** so that the methods, procedures, and data analyses of any study can be replicated. This transparency allows other researchers to see if the same results can be reproduced. If findings can be replicated, we have greater confidence that the findings are real and not based on bias. Transparency also relies on **peer review**, the process by which other independent researchers evaluate the scientific merit of the study. (You will learn more about this in Chapter 14.)

In contrast, if we relied on findings based on intuition, gut reactions, or our own experience, we would be open to the errors we just covered above. If we based findings on these, it would not be science, but instead, it would fall under the

classification of **pseudoscience**. Pseudoscientific beliefs are not based on the scientific method but rather on claims that may be touted as "scientifically proven," only bolstered by testimonials of believers who have experienced firsthand or who have claimed to have witnessed the phenomenon (Nester and Schutt 2012).

Of course, today's pseudoscience could be yesterday's science. In criminological research, phrenology is a good example. **Phrenology** is the belief that bumps and fissures of the skull determined the character and personality of a person. In the 19th century, doctors doing entry examinations at American prisons would examine a new inmate's head for bumps or cavities to develop a criminal profile. Advances in cognitive psychology and neurology have largely discredited phrenology and placed it within the domain of pseudoscience. It didn't take a genius to question phrenology, but just a group of researchers adhering to the scientific method. When inmates' heads were compared to individual heads in the general population, they were found to be essentially the same!

Pseudoscience: Dubious but fascinating claims that are touted as "scientifically proven" and bolstered by fervent, public testimonials of believers who have experienced firsthand or have claimed to have witnessed the phenomenon; however, such evidence is not based on the principles of the scientific method.

Phrenology: A now defunct field of study, once considered a science in the 19th century, that held that bumps and fissures of the skull determined the character and personality of a person.

Motives for Criminological Research

Like you, social scientists read stories about incidents of violence committed by youth, observe this violence occasionally in their lives, and try to make sense of what they see. For most, that is the end of it. But for some social scientists, the problem of youth violence has become a major research focus. The motivations for selecting this particular research focus, as with any social science topic, can be any one or some combination of the following:

Policy motivations. Many social service agencies and elected officials seek better assessments and descriptions of youth violence so they can identify needs and allocate responsibility among agencies that could meet these needs. For example, federal agencies such as the U.S. Department of Justice and the Centers for Disease Control and Prevention want to identify the magnitude of youth violence, and many state and local officials use social research to guide development of their social service budgets. Programs designed to rehabilitate young offenders often use research to learn more about the needs of their clientele. These policy guidance and program management needs have resulted in numerous research projects.

Academic motivations. Young offenders have been a logical focus for researchers interested in a number of questions ranging from how an individual's connection to parents and peers influences his or her behavior to how the social conditions under which an individual lives, such as poverty, affect his or her behavior. For example, social scientists have long been concerned with the impact that social disorganization has on individual behavior. Early in the 20th century, researchers at the University of Chicago were interested in the effects that residential mobility and immigration had on levels of crime and delinquency in urban neighborhoods. Today researchers are exploring similar questions concerning the impact of disintegrating economic bases in central cities and their relationship to crime and violence. Other researchers have focused on individual-level explanations such as neurological damage. Those who study social policy also have sought to determine whether correctional programs such as boot camps and other forms of shock incarceration serve to decrease the probability of juveniles reoffending in the future.

Personal motivations. Many who conduct research on youth violence feel that by doing so they can help prevent it and/or ameliorate the consequences of this violence when it occurs. Some social scientists first volunteered with at-risk youth in such organizations as Big Brothers Big Sisters and only later began to develop a research agenda based on their experiences.

Social Criminological Research in Practice

Of course, youth violence is not a new phenomenon in the United States. It has always been a popular topic of social science research. However, the sharp increase in this violence in the United States that began in the late 1980s was unprecedented. Predictably, whenever a phenomenon is perceived as an epidemic, numerous explanations emerge to explain it. Unfortunately, most of these explanations are based on the media and popular culture, not on empirical research. Unlike the mass media, which has floated anecdotal information, social scientists interested in this phenomenon have amassed a substantial body of findings that have refined knowledge about the factors related to the problem and shaped social policy (Tonry and Moore 1998). These studies fall into the four categories of purposes for social scientific research:

Descriptive research: Research in which phenomena are defined and described.

Descriptive research. Defining and describing social phenomena of interest is a part of almost any research investigation, but **descriptive research** is the primary focus of many studies of youth crime and violence. Some of the central questions used in these studies were "How many people are victims of youth violence?" "How many youth are offenders?" "What are the most common crimes committed by youthful offenders?" and "How many youth are arrested and incarcerated each year for crime?" Measurement (see Chapter 4) and sampling (see Chapter 5) are central concerns in descriptive research.

Exploratory research: Research in which social phenomena are investigated without a priori expectations, in order to develop explanations of them.

Exploratory research. **Exploratory research** seeks to find out how people get along in the setting under question, what meanings they give to their actions, and what issues concern them. The goal is to answer the question "What is going on here?" and to investigate social phenomena without expectations. This purpose is associated with the use of methods that capture large amounts of relatively unstructured information. For example, researchers investigating the emergence of youth gangs in the 1980s were encountering a phenomenon with which they had no direct experience. Thus, an early goal was to find out what it was like to be a gang member and how gang members made sense of their situation. Exploratory research like this frequently involves qualitative methods (see Chapter 9).

Explanatory research: Research that seeks to identify causes and/or effects of social phenomena.

Explanatory research. Many people consider explanation to be the premier goal of any science. **Explanatory research** seeks to identify causes and effects of social phenomena, to predict how one phenomenon will change or vary in response to variation in some other phenomenon. Researchers adopted explanation as a goal when they began to ask such questions as "Why do people become offenders?" and "Does the unemployment rate influence the frequency of youth crime?" Methods with which to identify causes and effects are the focus of Chapter 6.

Evaluation research: Research about social programs or interventions.

Evaluation research. **Evaluation research** seeks to determine the effects of a social program or other types of intervention. It is a type of explanatory research because it deals with cause and effect. However, evaluation research differs from other forms of explanatory research because evaluation research considers the implementation and effects of social policies and programs. These issues may not be relevant in other types of explanatory research. Research that examines cause and effect questions is reviewed in Chapter 7, which covers experimental design, and in Chapter 11, which covers evaluation research.

We will now summarize one study in each of these four areas to give you a feel for the projects motivated by those different concerns.

Case Study of Description

How Prevalent Is Youth Violence?

Police reports. One of the most enduring sources of information on lethal violence in the United States is the Federal Bureau of Investigation's (FBI) Supplementary Homicide Reports (SHR). Homicide victimization rates indicate that for those under the age of 24, vulnerability to murder increased dramatically from the mid-1980s through about 1994, when rates began a steady decline and have remained relatively stable since 2000 (Smith and Cooper 2013). Data measuring the prevalence of nonlethal forms of violence such as robbery and assaults are a bit more complicated. How do we know how many young people become victims of assault each year? People who report their victimizations to police represent one avenue for these calculations. The FBI compiles these numbers in its Uniform Crime Reporting (UCR) system, which is slowly being replaced by the National Incident-Based Reporting System (NIBRS). Both of these data sources rely on state, county, and city law enforcement agencies across the United States to voluntarily participate in the reporting program. Can you imagine why relying on these data sources may be problematic for estimating prevalence rates of violent victimizations? If victimizations are never reported to police, they are not counted. This is especially problematic for victimizations of intimate partners and for other offenses like rape, of which only a fraction are ever reported to police.

Surveys. Instead, most social scientists believe the best way to determine the magnitude of violent victimization is through random sample surveys. While we will discuss survey methodology in greater detail in Chapter 8, this basically means randomly selecting individuals in the population of interest and asking them about their victimization experiences. The only ongoing survey that does this on an annual basis is the National Crime Victimization Survey (NCVS), which is sponsored by the U.S. Department of Justice's Bureau of Justice Statistics. Among other questions, the NCVS asks questions like "Has anyone attacked or threatened you with a weapon, for instance, a gun or knife; by something thrown, such as a rock or bottle; include any grabbing, punching, or choking?" Estimates indicate that youth aged 12 to 24 have the highest rates of violent victimization of any age group, and these rates have been declining steadily since the highs witnessed in the early 1990s, although recent increases have been observed in homicide rates for this age group in some locations.

Another large research survey that estimates the magnitude of youth violence (as well as the prevalence of other risk-taking behavior, such as taking drugs and smoking) is called the Youth Risk Behavior Survey (YRBS), which has been conducted every two years in the United States since 1990. Respondents to this survey are a national sample of approximately 16,000 high school students in grades 9 through 12. To measure the extent of youth violence, students are asked the following questions: "During the past 30 days, on how many days did you carry a weapon such as a gun, knife, or club?" "During the past 12 months, how many times were you in a physical fight?" "During the past 12 months, how many times were you in a physical fight in which you were injured and had to be seen by a doctor or nurse?" "During the past 30 days, how many times did you carry a weapon such as a gun, knife, or club on school property?" "During the past 12 months, how many times were you in a physical fight on school property?" and "During the past 12 months, how many times did someone threaten or injure you with a gun, knife, or club on school property?"

Of course, another way to measure violence would be to ask respondents about their offending behaviors. Some surveys do this, including the National Youth Survey (NYS) and the Rochester Youth Development Study (RYDS). The RYDS sample consists of 1,000 students who were in the seventh and eighth grades of the Rochester, New York, public schools during the spring semester of the 1988 school year. Staff with this project have interviewed the original respondents at 12 different times (we will discuss longitudinal research of this kind in Chapter 6); the

last interview took place in 1997, when respondents were in their early 20s (Thornberry et al. 2008). As you can imagine, respondents are typically more reluctant to reveal their offending behavior than they are to reveal their victimization experiences. However, these surveys have been a useful tool for examining the factors related to violent offending and other delinquency. We should also point out that although this discussion has been specific to violence, the measures we have discussed in this section, along with their strengths and weaknesses, apply to measuring all crime in general.

Case Study of Exploration

How Did Schools Avert a Shooting Rampage?

Research that is exploratory in nature is generally concerned with uncovering detailed information about a given phenomenon, learning as much as possible about particular people and/or events. While there have been far too many school shootings in the United States during the past decade, there have also been numerous incidents in which students were plotting to kill their peers or faculty members, but these plans came to the attention of authorities before they could be carried out. To examine how these incidents were stopped, Eric Madfis (2014) selected 11 schools where a mass shooting had been diverted between 2000 and 2009 and conducted intensive interviews with people who were involved, including 11 principals and 21 other administrators, teachers, and police officers. He also corroborated the interview data with newspaper reports and, where possible, court transcripts and police incident reports.

Madfis's(2014) research was truly exploratory. You will learn much more about qualitative research in Chapter 8, but for now, we simply want to highlight how this study is different from the other research types above. He let the people he interviewed speak for themselves; he didn't come with questions that were designed before the interviews to measure concepts such as violence or delinquency. After examining all of the interview transcripts, Madfis developed themes that emerged among them all. This is what made the research exploratory instead of explanatory.

Five out of the 11 school shootings were thwarted by other students who were not directly involved or entrusted by the accused students, but who came about the information indirectly. For example, one student reported the existence of disturbing posts and images on another student's network website. The second most common category of intervention involved people who had been told directly about the planned attacks by the students accused of plotting them. For example, after one student was sent threatening messages, she told her mother, who then called the police. When the accused student was questioned, he confessed, and weapons were discovered in his bedroom.

School administrators believed that students were more likely to come forward with information about their peers since the Columbine High School shootings than they had been before this catalyzing mass shooting. One school principal stated, "Columbine absolutely made kids much more vigilant about things going on around them…I think it made kids less afraid to speak up if something wasn't sitting right with them" (Madfis 2014, 235). Another theme that was clear from the interviews was that if school environments were going to break the "student code of silence," they must be supporting, cohesive, and trusting. For example, another principal stated, "The best mechanism we have as a deterrent for these sorts of violent acts is good relationships between kids and adults, because kids will tell you" (2014, 235).

As you can see from this discussion of Madfis's results, the goal of his research was to explore the factors related to instances where a school shooting had been successfully thwarted. He did not go into the school with a survey filled with questions, because the existing literature reveals that little is known about these factors. For this reason, the investigation was explorative in nature. It is different from a descriptive investigation, because an estimate of the prevalence of some phenomenon is not the goal. Rather, a deeper understanding of the processes and perceptions of study participants is the desired outcome in exploratory research.

Case Study of Explanation

What Factors Are Related to Youth Delinquency and Violence?

When we move from description to exploration and finally to explanation, we want to understand the direct relationship between two or more things. Does *x* explain *y?* Or if *x* happens, is *y* also likely to occur? What are some of the factors related to youth violence? Using the South Carolina YRBS (described above), MacDonald et al. (2005) examined whether constructs from general strain theory (GST) (Agnew 1992) and Gottfredson and Hirschi's general theory of crime (1990) could predict youth violence. GST generally contends that strain, such as disjunction between expectations and aspirations (e.g., wanting a good job but not being able to get one), increases the likelihood that individuals will experience negative emotions (e.g. anger, anxiety), which in turn increases the likelihood of antisocial or violent behavior. The general theory of crime claims that self-control, which is primarily formed by the relationship children have with their parents and/or guardians, is the motivating factor for all crime. Individuals with low self-control, the theory predicts, will be more likely to pursue immediate gratification, be impulsive, prefer simple tasks, engage in risky behavior, have volatile tempers, and so on.

To measure violent behavior, the YRBS asks respondents how many times in the past 30 days they carried a weapon and how many times they were in a physical fight. To measure life satisfaction, MacDonald et al. (2005) used six questions that asked respondents to report on general satisfaction or the degree to which they felt "terrible" or "delighted" about family life, friendships, school, self, residential location, and overall life. To measure self-control, the authors used the indicators of smoking and sexual behavior to represent risky behaviors that are not illegal, since they "reflect impulsivity and short-run hedonism" (p. 1502). When predicting violent behavior, they also controlled for a number of other factors such as employment, drug use, family structure, and religious participation, along with age, race, and gender.

Consistent with the general theory of crime, MacDonald et al. (2005) found that high school students who reported more impulsive behaviors—indicative of low self-control—also reported greater participation in violent behavior. In addition, results indicated that students who were more satisfied with life were significantly less likely to have engaged in violence compared to their less satisfied peers. In this way, MacDonald and his colleagues (2005) were conducting explanatory research.

Case Study of Evaluation

How Effective Are Violence Prevention Programs in Schools?

As many school administrators will tell you, there are direct mail, e-mail, and in-person direct sales efforts to sell them programs that reduce violence, increase empathy among students, promote a positive school environment, promote other forms of mental well-being, and on and on. Unfortunately, not many of these programs have been rigorously evaluated to ensure they actually do what they promise. One program that has been the target of rigorous evaluation is Gang Resistance Education and Training (GREAT), which is school-based gang and violence prevention program. Among other things, this program teaches students about crime and its effects on victims, gives them skills to resolve conflicts without violence, and helps them improve individual responsibility through goal setting. It addresses multiple risk factors for violent offending among three domains: school, peer, and individual. Because it is based in the school curriculum, it does not address risk factors in the family or neighborhood. It is a 13-week program taught in sixth or seventh grade and attempts to affect several risk factors, including school commitment and performance, association with conventional or delinquent peers, empathy, and self-control, among others.

Finn-Aage Esbensen and his colleagues (Esbensen et al. 2013) evaluated the long-term effects of the GREAT program in seven cities across the United States. Schools selected for the evaluation randomly assigned some seventh grade classrooms to participate in the program (experimental groups) while the other classrooms did not (control groups). As you will later learn, this is called a true experimental design. It is an extremely strong research method for determining the effects of programs or policies, because if groups are truly randomly assigned, there is a strong reason to believe that differences between the groups after program implementation, such as reduced violent offending, are a result of the program and not some other factor that existed before the introduction of the treatment.

Both experimental and control group students in the study (Esbensen et al. 2013) completed four follow-up surveys annually for four years. The researchers examined 33 outcome measures, including general delinquency, violent offending, gang affiliation, associations with delinquent peers, empathy, impulsivity, and problem-solving behavior, among others. The statistical methods employed by Esbensen and his colleagues are very complicated and beyond the scope of this text, so we will simply highlight the general findings. When the data for all seven sites were combined, no differences were revealed in violent offending between experimental and control group students over the four-year period. Those students who participated in the GREAT program, however, were less likely to become members of gangs, had higher levels of altruism, felt less anger, had fewer risk-taking behaviors, and had more favorable attitudes toward the police, among other differences.

With these results, would you deem the GREAT program a success? These are the important questions evaluation research must address. Esbensen et al. (2013) agree that the program did not reduce general delinquency or violent offending but note that it was effective in reducing gang membership, which is also a risk factor for violent offending.

Social Research Philosophies

What influences the choice of a research strategy? The motive for conducting research is critical: An explanatory or evaluative motive generally leads a researcher to use quantitative methods, whereas an exploratory motive often results in the use of qualitative methods. Of course, a descriptive motive means choosing a descriptive research strategy.

Positivism and Postpositivism

A researcher's philosophical perspective on reality and on the appropriate role of the researcher also will shape her methodological preferences. Researchers with a positivist philosophy believe that there is an objective reality that exists apart from the perceptions of those who observe it; the goal of science is to better understand this reality.

Positivism: The belief, shared by most scientists, that there is a reality that exists quite apart from our own perception of it, although our knowledge of this reality may never be complete.

> Whatever nature "really" is, we assume that it presents itself in precisely the same way to the same human observer standing at different points in time and space. . . . We assume that it also presents itself in precisely the same way across different human observers standing at the same point in time and space. (Wallace 1983, 461)

Postpositivism: The belief that there is an empirical reality but that our understanding of it is limited by its complexity and by the biases and other limitations of researchers.

This philosophy is traditionally associated with science (Weber 1949), with the expectation that there are universal laws of human behavior, and with the belief that scientists must be objective and unbiased to see reality clearly.

Postpositivism is a philosophy of reality that is closely related to **positivism**. Postpositivists believe that there is an external, objective reality but are very

sensitive to the complexity of this reality and the limitations of the scientists who study it—and, for social scientists, the biases they bring to the study of social beings like themselves (Guba and Lincoln 1994). As a result, they do not think scientists can ever be sure that their methods allow them to perceive objective reality; the goal of science can only be to achieve **intersubjective agreement** among scientists about the nature of reality (Wallace 1983). For example, postpositivists may worry that researchers' predispositions may bias them in favor of deterrence theory. Therefore, they will remain somewhat skeptical of results that support predictions based on deterrence until a number of researchers feel that they have found supportive evidence. The postpositivist retains much more confidence in the ability of the community of social researchers to develop an unbiased account of reality than in the ability of any individual social scientist to do so (Campbell and Russo 1999).

Intersubjective agreement: Agreement between scientists about the nature of reality; often upheld as a more reasonable goal for science than certainty about an objective reality.

Positivist Research Guidelines

To achieve an accurate, or valid, understanding of the social world, a researcher operating within the positivist or postpositivist tradition must adhere to some basic guidelines about how to conduct research:

1. *Test ideas against empirical reality without becoming too personally invested in a particular outcome*. This guideline requires a commitment to "testing," as opposed to just reacting to events as they happen or looking for what we want to see (Kincaid 1996).
2. *Plan and carry out investigations systematically*. Social researchers have little hope of conducting a careful test of their ideas if they do not think through in advance how they should go about the test and then proceed accordingly.
3. *Document all procedures and disclose them publicly*. Social researchers should disclose the methods on which their conclusions are based so that others can evaluate for themselves the likely soundness of these conclusions. Such disclosure is a key feature of science. It is the community of researchers, reacting to each other's work that provides the best guarantee against purely self-interested conclusions (Kincaid 1996).
4. *Clarify assumptions*. No investigation is complete unto itself; whatever the researcher's method, the research rests on some background assumptions. For example, research to determine whether arrest has a deterrent effect assumes that potential law violators think rationally and that they calculate potential costs and benefits prior to committing crimes. By definition, research assumptions are not tested, so we do not know for sure whether they are correct. By taking the time to think about and disclose their assumptions, researchers provide important information for those who seek to evaluate the validity of research conclusions.
5. *Specify the meaning of all terms*. Words often have multiple or unclear meanings. "Recidivism," "self-control," "poverty," "overcrowded," and so on can mean different things to different people. In scientific research, all terms must be defined explicitly and used consistently.
6. *Maintain a skeptical stance toward current knowledge*. The results of any particular investigation must be examined critically, although confidence about interpretations of the social or natural world increases after repeated investigations yield similar results. A general skepticism about current knowledge stimulates researchers to improve the validity of current research results and expand the frontier of knowledge.
7. *Replicate research and build social theory*. No one study is definitive by itself. We cannot fully understand a single study's results apart from the larger body of knowledge to which it is related, and we cannot place much confidence in these results until the study has been replicated. Theories organize the knowledge accumulated by numerous investigations into a coherent whole and serve as a guide to future inquiries.

8. *Search for regularities or patterns.* Positivist and postpositivist scientists assume that the natural world has some underlying order of relationships so that unique events and individuals can be understood at least in part in terms of general principles (Grinnell 1992).

Real investigations by social scientists do not always include much attention to theory, specific definitions of all terms, and so forth. But it behooves any social researcher to study these guidelines and to consider the consequences of not following any with which he or she does not agree.

A Positivist Research Goal: Advancing Knowledge

The goal of the traditional positivist scientific approach is to advance scientific knowledge. This goal is achieved when research results are published in academic journals or presented at academic conferences.

The positivist approach regards value considerations to be beyond the scope of science: "An empirical science cannot tell anyone what he should do—but rather what he can do—and under certain circumstances—what he wishes to do" (Weber 1949, 54). The idea is that developing valid knowledge about how society is organized, or how we live our lives, does not tell us how society should be organized or how we should live our lives. The determination of empirical facts should be a separate process from the evaluation of these facts as satisfactory or unsatisfactory (Weber 1949).

The idea is not to ignore value considerations, because they are viewed as a legitimate basis for selecting a research problem to investigate. In addition, many scientists also consider it acceptable to encourage government officials or private organizations to act on the basis of a study's findings after the research is over. During a research project, however, value considerations are to be held in abeyance.

Interpretivism and Constructivism

Interpretivism (interpretivist philosophy): The belief that reality is socially constructed and that the goal of social scientists is to understand what meanings people give to that reality.

Verstehen: German term for "understanding."

Constructivist paradigm: Methodology based on rejection of belief in an external reality; it emphasizes the importance of exploring the way in which different stakeholders in a social setting construct their beliefs.

Scientists with an **interpretivist philosophy** believe that social reality is socially constructed and that the goal of social scientists is to understand what meanings people give to reality, not to determine how reality works apart from these interpretations. This philosophy rejects the positivist belief that there is a concrete, objective reality that scientific methods help us understand (Lynch and Bogen 1997). Instead, interpretivists believe that scientists construct an image of reality based on their own preferences and prejudices and their interactions with others. Max Weber termed the goal of interpretivist research ***verstehen***, or "understanding."

Here is the basic argument: All the empirical data we collect come to us through our own senses and must be interpreted with our own minds. This suggests that we can never be sure that we have understood reality properly—or that we ever can—or that our own understandings can really be judged more valid than someone else's. Concerns like this have begun to appear in many areas of social science and have begun to shape some research methods. From this standpoint, the goal of validity becomes misleading: "Truth is a matter of the best-informed and most sophisticated construction on which there is consensus at a given time" (Schwandt 1994, 128).

The **constructivist paradigm** extends interpretivist philosophy by emphasizing the importance of exploring how different stakeholders in a social setting construct their beliefs (Guba and Lincoln 1989). It gives particular attention to the different goals of researchers and other participants in a research setting and seeks to develop a consensus among participants about how to understand the focus of inquiry. The constructivist research report will highlight different views of the social program or other issue and explain how a consensus can be reached among participants.

Constructivist inquiry uses an interactive research process, in which a researcher begins an evaluation in some social setting by identifying the different interest groups in that setting. The researcher goes on to learn what each group thinks and then gradually tries to develop a shared perspective on the problem being evaluated (Guba and Lincoln 1989).

These steps are diagrammed as a circular process in Exhibit 1.5. In this process, called a **hermeneutic circle**,

> the constructions of a variety of individuals—deliberately chosen so as to uncover widely variable viewpoints—are elicited, challenged, and exposed to new information and new, more sophisticated ways of interpretation, until some level of consensus is reached (although there may be more than one focus for consensus). (Guba and Lincoln 1989, 180–81)

Hermeneutic circle: Represents the dialectical process in which the researcher obtains information from multiple stakeholders in a setting, refines his or her understanding of the setting, and then tests that understanding with successive respondents.

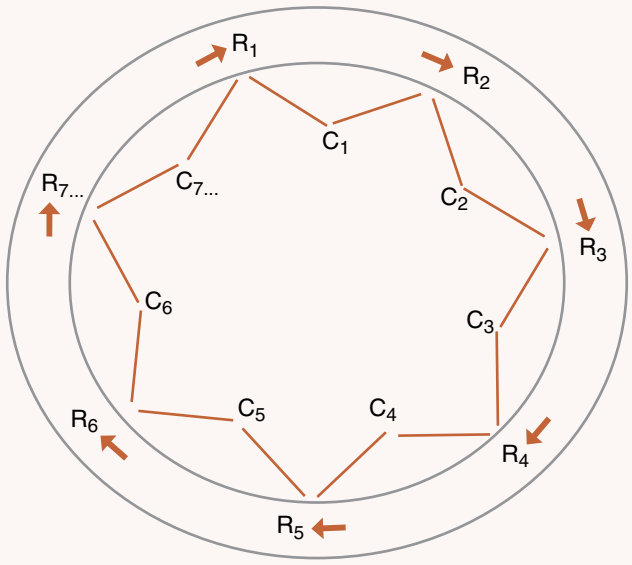
The researcher conducts an open-ended interview with the first respondent (R1) to learn about her thoughts and feelings on the subject of inquiry, her "construction" (C1). The researcher then asks this respondent to nominate a second respondent (R2), who feels very differently. The second respondent is then interviewed in the same way but also asked to comment on the themes raised by the previous respondent. The process continues until all major perspectives are represented, and it may be repeated with the same set of respondents.

The final product is a **case report**. A case report is very unlike the technical reports we are accustomed to seeing in positivist inquiries. It is not a depiction of a "true" or "real" state of affairs. . . . It does not culminate in judgments, conclusions, or recommendations except insofar as these are concurred on by relevant respondents.

> The case report helps the reader come to a realization (in the sense of making real) not only of the states of affairs that are believed by constructors [research respondents] to exist but also of the underlying motives, feelings, and rationales

Case report: A report that helps the reader realize (in the sense of making real) not only the states of affairs that are believed by constructors [research respondents] to exist but also of the underlying motives, feelings, and rationales leading to those beliefs.

Exhibit 1.5 The Hermeneutic Circle



Source: Adapted from Guba and Lincoln 1989, 152.

leading to those beliefs. The case report is characterized by a thick description that not only clarifies the all-important context, but that makes it possible for the reader vicariously to experience it (Guba and Lincoln 1989).

Feminist research: Research with a focus on women's lives that often includes an orientation to personal experience, subjective orientations, the researcher's standpoint, and emotions.

Feminist research is a term used to refer to research done by feminists (Reinharz 1992) and to a perspective on research that can involve many different methods (Reinharz 1992). The feminist perspective on research includes the interpretivist and constructivist elements of concern with personal experience and subjective feelings and with the researcher's position and standpoint. Feminist researchers Sharlene Hesse-Biber and Patricia Lina Leavy (2007) emphasize the importance of viewing the social world as complex and multilayered, of sensitivity to the impact of social differences, of being an "insider" or an "outsider," and of being concerned with the researcher's position. African American feminist researcher Patricia Hill Collins (1991) suggests that researchers who are sensitive to their "outside" role within a social situation may have unique advantages:

> Outsiders within occupy a special place—they become different people and their difference sensitizes them to patterns that may be more difficult for established sociological insiders to see. (p. 53)

Interpretivist/Constructivist Research Guidelines

Researchers guided by an interpretivist philosophy reject some of the guidelines to which positivist researchers seek to adhere. In fact, there are a wide variety of specific approaches that can be termed "interpretivist," and each has some guidelines that it highlights. For those working within the constructivist perspective, Guba and Lincoln (1989, 42) suggest four key steps for researchers, each of which may be repeated many times in a given study:

1. Identify stakeholders and solicit their "claims, concerns, and issues."
2. Introduce the claims, concerns, and issues of each stakeholder group to the other stakeholder groups and ask for their reactions.
3. Focus further information collection on claims, concerns, and issues about which there is disagreement among stakeholder groups.
4. Negotiate with stakeholder groups about the information collected and attempt to reach consensus on the issues about which there is disagreement.

An Interpretivist Research Goal: Creating Change

Some social researchers with an interpretivist or constructivist orientation often reject explicitly the traditional positivist distinction between facts and values (Sjoberg and Nett 1968). Bellah et al. (1985) have instead proposed a model of "social science as public philosophy." In this model, social scientists focus explicit attention on achieving a more just society:

> Social science makes assumptions about the nature of persons, the nature of society, and the relation between persons and society. It also, whether it admits it or not, makes assumptions about good persons and a good society and considers how far these conceptions are embodied in our actual society.
>
> Social science as public philosophy, by breaking through the iron curtain between the social sciences and the humanities, becomes a form of social self-understanding or self-interpretation. . . . By probing the past as well as the present, by looking at "values" as much as at "facts," such a social science is able to make connections that are not obvious and to ask difficult questions. (p. 301)

Whyte (1991) proposed a more activist approach to research called **participatory action research (PAR)**. As the name implies, this approach encourages social researchers to get "out of the academic rut" and bring values into the research process (p. 285). In participatory action research, the researcher involves as active participants some members of the setting studied. Both the organizational members and the researcher are assumed to want to develop valid conclusions, to bring unique insights, and to desire change, but Whyte (1991) believed these objectives were more likely to be obtained if the researcher collaborated actively with the persons he studied. We will talk about PAR in Chapter 15.

Participatory action research: A type of research in which the researcher involves some organizational members as active participants throughout the process of studying an organization; the goal is making changes in the organization.

An Integrated Philosophy

It is tempting to think of positivism and postpositivism as representing an opposing research philosophy to interpretivism and constructivism. Then it seems that we should choose the one philosophy that seems closest to our own preferences and condemn the other as "unscientific," "uncaring," or perhaps just "unrealistic." But there are good reasons to prefer a research philosophy that integrates some of the differences between these philosophies (Smith 1991).

Society is a product of human action that in turn shapes how people act and think. The "sociology of knowledge" studies this process by which people make themselves as they construct society (Berger and Luckmann 1966). Individuals internalize the social order through the process of socialization, so their own beliefs and actions are not entirely of their own making but instead reflect the social order of which they are a part. This means that we should be very careful to consider how our research approaches and interpretations are shaped by our own social background, just as we are cautioned to do by interpretivist researchers.

When we peer below the surface of standardized research procedures, we also discover the importance of taking into account people's feelings and the meanings that they attach to these feelings. Recognition of this interpretive process can improve survey research conducted in the positivist tradition. Researchers cannot ignore the subjective aspects of human experience or expunge it entirely from the data collection process. This helps explain why the debate continues between positivist and interpretivist philosophies and why research can often be improved by drawing on insights from both. In the words of Stephen P. Turner (1980), "The distinctive empirical concerns of 'interpretive' and 'statistical' sociologies, usually thought of as antithetical or mutually irrelevant, can be made to mesh" (p. 99).

And what about the important positivist distinction between facts and values in social research? Here, too, there is evidence that neither the "value-free" presumption of positivists nor the constructivist critique of this position is entirely correct. For example, Savelsberg, King, and Cleveland (2002) examined influences on the focus and findings of published criminal justice scholarship. They found that criminal justice research was more likely to be oriented to topics and theories suggested by the state when it was funded by government agencies. This reflects a political influence on scholarship. However, government funding did not have any bearing on the researchers' conclusions about the criminal justice processes they examined. This suggests that scientific procedures can insulate the research process itself from political pressure.

Which philosophy makes the most sense to you? Do you agree with positivists and postpositivists that scientific methods can help us understand the social world as it is, not just as we would like to think it is? Does the interpretivist focus on meanings sound like a good idea? Whatever your answers to these questions, you would probably agree that developing a valid understanding of the social world is not an easy task for social scientists.

Many scholars are beginning to advance mixed-methods approaches to research that rely on both philosophies. We highlight mixed-methods approaches throughout this book, and Chapter 12 focuses exclusively on the relative strengths of single method approaches versus a mixed-methods approach. We argue that there is value to both positivist and interpretivist philosophies and that there are good reasons to prefer an integrated philosophy. Researchers influenced by a positivist philosophy should be careful to consider how their own social background shapes their research approaches and interpretations, just as interpretivist researchers caution us to do. Researchers influenced more by an interpretivist philosophy should be careful to ensure that they use rigorous

procedures to check the trustworthiness of their interpretations of data (Riessman 2008). If we are not willing to ask hard questions about our research and the evidence we collect, we are not ready to investigate the social world.

Quantitative and Qualitative Methods

As you might expect, different research philosophies often are related to the selection of different research methods. Importantly, however, we want to make clear that the research question or purpose should always dictate the research method. This will be become more obvious when you read each specific methodology chapter. However, in general, research methods can be divided into two somewhat different domains called quantitative research methods and qualitative research methods. Did you notice the difference between the types of data the case studies discussed at the beginning of the chapter used? The data collected in the YRBS were counts of the responses students gave on the survey. These data were numerical, so we say that this study used **quantitative methods**. MacDonald et al. (2005) looked at the extent to which impulsivity and life satisfaction affected students' participation in violence; they examined this relationship with statistical methods like correlations and regression coefficients. This, too, represents quantitative methods and is consistent with the positivist philosophy. In contrast, Madfis's (2014) exploratory study used in-depth interviews with school administrators who had helped prevent an attempted school shooting. This methodology was designed to capture the social reality of the participants as they experienced it, in their own words rather than in predetermined categories. This inquiry is clearly consistent with the constructivist philosophy. Because the researchers focused on the participants' words rather than counts and numbers, we say that this study used **qualitative methods**.

Quantitative methods: Methods such as surveys and experiments that record variation in social life in terms of categories that vary in amount. Data that are treated as quantitative are either numbers or attributes that can be ordered in terms of magnitude.

Qualitative exploratory methods: These methods typically involve exploratory research questions, inductive reasoning, an orientation to social context and human subjectivity, and the meanings attached by participants to events and to their lives. Qualitative data are mostly written or spoken words or observations that do not have a direct numerical interpretation.

The distinction between quantitative and qualitative methods involves more than just the type of data collected. Quantitative methods are most often used when the motives for research are explanation, description, or evaluation. Exploration is the most common motive for using qualitative methods, although researchers also use these methods for descriptive and evaluative purposes. The goals of quantitative and qualitative researchers also may differ. Whereas quantitative researchers generally accept the goal of developing an understanding that correctly reflects what is actually happening in the real world, some qualitative researchers instead emphasize the goal of developing an "authentic" understanding of a social process or social setting (Gubrium and Holstein 1997). An authentic understanding is one that reflects *fairly* the various perspectives of participants in that setting.

As important as it is, we do not want to place too much emphasis on the distinction between qualitative and quantitative methods, because social scientists often combine these methods in order to enrich their research. For example, "qualitative knowing" about social settings can be essential for understanding patterns in quantitative data (Campbell and Russo 1999). Qualitative data can be converted to quantitative data, for example, when we count the frequency of particular words or phrases in a text or measure the time elapsed between different behaviors that we have observed. Surveys that collect primarily quantitative data also may include questions asking for written responses, and these responses may be used in a qualitative, textual analysis. Researchers using quantitative methods may engage in some exploration in order to find unexpected patterns in their data. Qualitative researchers may test explicit explanations of social phenomena using textual or observational data.

Mixed methods research: Research that combines qualitative and quantitative methods in an investigation of the same or related research question(s).

As noted above, many researchers are electing to garner the strengths of both quantitative and qualitative research philosophies and rely on **mixed methods** to

study one research question. This is sometimes called **triangulation**. The latter term suggests that a researcher can get a clearer picture of the social reality being studied by viewing it from several different perspectives. Each will have some liabilities in a specific research application, and all can benefit from a combination of one or more other methods (Brewer and Hunter 1989; Sechrest and Sidani 1995).

Triangulation: The use of multiple methods to study one research question. Also used to mean the use of two or more different measures of the same variable.

As you will see in the chapters that follow, the distinction between quantitative and qualitative data is not always sharp. We'll examine such mixed-method possibilities in each of the chapters that review specific methods of data collection.

Specific Types of Research Methods

As you will see in this book, the data we utilize in criminological research are derived from many different sources, and the research methods we employ in criminology and criminal justice are very diverse. In this section, we are going to highlight a few of the methods that will be covered later in the book.

An **experimental approach** is used in criminological research, particularly when the efficacy of a program or policy is being evaluated. As we will see in Chapter 6, true experiments must have three things: two groups (one receiving the treatment or intervention and the other receiving no treatment or another form thereof), random assignment to these two groups, and an assessment of change in the outcome variable after the treatment or policy has been received. Quasi-experimental designs, experiments that lack one of these three ingredients, also are used in our discipline. Chapter 11 focuses exclusively on research designs used in evaluation research.

Experimental approach: An approach in which the researcher assigns individuals to two or more groups in a way that equates the characteristics of individuals in the groups (with a certain chance of error), except for variation in the groups' exposure to the independent variable.

Asking people questions on **surveys** or **questionnaires**, as we highlighted above, is another popular method used by criminological researchers and is probably the most versatile. Most concepts about individuals can be defined in such a way that measurement with one or more questions becomes an option. These surveys can be self-administered by respondents (e.g., through the mail) or can be read by an interviewer (e.g., through a telephone survey).

Surveys: Popular and versatile research instruments using a question format. Surveys can either be self-administered or read by an interviewer.

Questionnaire: The instrument containing the questions on a self-administered survey.

Although in principle survey questions can be a straightforward and efficient means to measure individual characteristics, facts about events, level of knowledge, and opinions of any sort, in practice survey questions can result in misleading or inappropriate answers. All questions proposed for a survey must be screened carefully for their adherence to basic guidelines and then tested and revised until the researcher feels some confidence that they will be clear to the intended respondents (Fowler 1995). Some variables may prove to be inappropriate for measurement with any type of question. We have to recognize that memories and perceptions of the events about which we might like to ask can be limited. Specific guidelines for writing questions and developing surveys are presented in Chapter 8.

In other cases, a researcher may want to make her presence known and directly participate in the activity being observed. Included in this type of research design is **participant observation**, which involves developing a sustained relationship with people while they go about their normal activities. In other instances, the subject matter of interest may not be amenable to a survey, or perhaps we want more detailed and in-depth information than questions with fixed formats can answer. In these cases, we turn to research techniques such as participant observation and **intensive interviewing**. These methods are preferred when we seek in-depth

Participant observation: A type of field research in which a researcher develops a sustained and intensive relationship with people while they go about their normal activities.

Intensive interviewing: Open-ended, relatively unstructured questioning in which the interviewer seeks in-depth information on the interviewee's feelings, experiences, and/or perceptions.

Source: Courtesy of Grant A. Bacon

CAREERS AND RESEARCH

Grant A. Bacon, BA, Research Associate, Center for Drug and Health Studies, University of Delaware

Grant Bacon graduated with degrees in history, education, and political science from the University of Delaware in 1998. He initially aspired to give back to the community, especially by helping young people as a teacher. Although he started out teaching, he found his calling by working more directly with at-risk youth as a court liaison and eventually program coordinator for a juvenile drug court/drug diversion program. It was during his time working with these drug court programs that Grant first came into contact with the University of Delaware's Center for Drug and Health Studies (CDHS), which was beginning an evaluation of the drug court programs in New Castle County, Delaware. In 2001, he accepted an offer to become a research associate with CDHS, where he has continued to work on many different research projects. Two of his most recent projects include research that investigated the factors affecting the reentry experience for inmates returning to the community and another evaluating the parole program called "Decide Your Time."

Grant is happy to be working in the field on both qualitative and quantitative research. He loves working with people who share a vision of using research findings to help people in a number of ways, and to give back to the world in a meaningful manner. Every day is different. Some days, Grant and other associates are on the road visiting criminal justice or health related facilities or are trying to locate specific individual respondents or study participants. Other days, he may be gathering data, doing intensive interviewing, or administering surveys. He thinks the most rewarding part of his job is helping people who have been part of the criminal justice system and giving them a voice.

Grant's advice to students interested in research is the following:

> If doing research interests you, ask your teachers how you can gain experience through internships or volunteering. Be sure to network with as many people from as many human services organizations as possible. Being familiar with systems like GIS (geographic information systems) and data analyses is becoming important as well. If you did not receive this training during your undergraduate studies, many community colleges offer introductory and advanced classes in GIS, Microsoft Excel, Access, and SPSS. Take them!

information on an individual's feelings, experiences, and perceptions. Chapter 9 shows how these methods and other field research techniques can uncover aspects of the social world that we are likely to miss in experiments and surveys.

Secondary data analysis: Analysis of data collected by someone other than the researcher or the researcher's assistant.

Historical events research: Research in which social events of only one time period in the past are studied.

Content analysis: A research method for systematically analyzing and making inferences from text.

Secondary data analysis (Riedel 2000), which is the reanalysis of already existing data, is another method used by researchers. These data usually come from one of two places: official sources such as local or federal agencies (e.g., rates of crime reported to police, information on incarcerated offenders from state correctional authorities, adjudication data from the courts), or surveys sponsored by government agencies or conducted by other researchers. Virtually all the data collected by government agencies and a great deal of survey data collected by independent researchers are made available to the public through the Inter-University Consortium for Political and Social Research (ICPSR), which is located at the University of Michigan. When documents from the past, such as correspondence, newspaper accounts, and trial transcripts, are analyzed, the research is generally termed **historical events research**. Another type of indirect measurement is called **content analysis**. In this type of study, a researcher studies representations of the research topic in such media forms as news articles, TV shows, and radio talk shows. An investigation of the drinking climate on campuses might examine the amount of space devoted to ads for alcoholic beverages in a sample of issues of

the student newspaper. Campus publications also might be coded to indicate the number of times that statements discouraging substance abuse appear. Content analysis techniques also can be applied to legal opinions, historical documents, novels, songs, or other cultural productions. With the advent of computer technology, **crime mapping** also has become a popular method for examining the relationship between criminal behavior and other social indicators. Chapter 10 covers each of these methodologies and illustrates the importance of these unobtrusive research techniques in criminology and criminal justice. Increasingly, researchers are combining methods to more reliably answer a single research question. Although examples of mixed-methods research are highlighted in several chapters, Chapter 12 provides an overview of the philosophy and motivation for combining methods, along with the various techniques for doing so.

Crime mapping: Geographical mapping strategies used to visualise a number of things, including location, distance, and patterns of crime and their correlates.

All research begins with a research question and then a formal process of inquiry. Chapter 2 provides an overview of the research circle from both a deductive and inductive perspective using the empirical literature on arrest and intimate partner assault as a case study. All research must also grapple with conceptualization and measuring constructs, including the extent to which these measures are valid and reliable. Chapter 4 examines these issues followed by a discussion of sampling in Chapter 5. Of course, all research, regardless of the methodology selected, requires that it be carried out ethically with special protections afforded the participants under study. Although every chapter that details a specific type of research method concludes with a section on ethics related to that method, Chapter 3 is devoted exclusively to the steps required to ensure research is conducted ethically.

Strengths and Limitations of Social Research

The four case studies described earlier in this chapter are only four of the dozens of studies investigating youth violence, but they illustrate some of the questions criminological research can address, several different methods social scientists studying these issues can use, and ways criminological research can inform public policy. Notice how each of the four studies was designed to reduce the errors common in everyday reasoning:

- The clear definition of the population of interest in each study and the selection of a broad, representative sample of that population in two studies increased the researchers' ability to draw conclusions without overgeneralizing findings to groups to which they did not apply.
- The use of surveys in which each respondent was asked the same set of questions reduced the risk of selective or inaccurate observation.
- The risk of illogical reasoning was reduced by carefully describing each stage of the research, clearly presenting the findings, and carefully testing the basis for cause-and-effect conclusions.
- Resistance to change was reduced by using an experimental design that randomly assigned classes to an experimental treatment (GREAT) and a control group to fairly evaluate the efficacy of the program.

Nevertheless, we would be less than honest if we implied that you enter the realm of beauty, truth, and light whenever you engage in research or whenever you base your opinions only on the best available social research. Research always has some limitations and some flaws (as does any human endeavor), and findings are always subject to differing interpretations. Social research permits you to see more, to observe with fewer distortions, and to describe more clearly to others what your opinions are based on, but it will not settle all arguments. Other people will always have differing opinions, and some of those others will be social scientists who have conducted their own studies and drawn different conclusions. Do other programs similar to the GREAT program reduce levels of aggression among students? Only a handful of studies have used randomized controlled designs to examine these programs, and the results of these studies have been mixed. Until more scientific research is conducted to evaluate these programs, it is difficult to determine whether the money poured into such programs by school districts is well spent.

But even in areas of research that are fraught with controversy, where social scientists differ in their interpretations of the evidence, the quest for new and more sophisticated research has value. What is most important for improving understanding of the social world and issues in criminology is not the result of any particular study but the accumulation of evidence from different studies of related issues. By designing new studies that focus on the weak points or controversial conclusions of prior research, social scientists contribute to a body of findings that gradually expands our knowledge about the social world and resolves some of the disagreements about it.

Research in the News

A SCHOOL SHOOTING EVERY WEEK?

This article investigates a quote by Senator Chris Murphy (D-CT) who said, "Since Sandy Hook there has been a school shooting, on average, every week." He made this statement on the Senate floor after the killing of nine people at a prayer meeting in Charleston, South Carolina. This is not the first time this statistic has been used, but where did it come from? The article reports it was calculated by a group called "Everytown for Gun Safety" that has counted the tally of school shootings since the Sandy Hook Elementary School shooting as 126 as of June 8, 2015. How does the group define a school shooting? Any incident in which a firearm was discharged inside a school building or on school or campus grounds, as documented by the press or confirmed through further inquiries with law enforcement, was deemed a school shooting.

For Further Thought

1. Does this definition of school shootings capture what we typically mean by a school shooting? For example, it would include accidental shootings as well as suicides or attempted suicides.
2. What other types of incidents would be included in this definition that we don't typically associate with school shootings? What definition would you use if you were going to measure the incidence of school shootings?

Source: Lee, Michelle Y. H. 2015. "Has There Been One School Shooting Per Week Since Sandy Hook?" *Washington Post*, June 29. http://www.washingtonpost.com/blogs/fact-checker/wp/2015/06/29/has-there-been-one-school-shooting-per-week-since-sandy-hook/.

Social researchers investigating issues in criminal justice and criminology will always disagree somewhat because of their differing research opportunities, methodological approaches, and policy preferences. There are many heated debates in the criminological literature. For example, one issue that has recently received increased attention is how the availability of guns is related to overall levels of violence. Some researchers have found that greater gun availability is associated with more robberies, home burglaries, assaults, and homicides with guns. However, others have argued that gun ownership for self-defense can reduce robbery and home burglary completion rates, thus theoretically decreasing the rewards for these crimes and increasing the perceived risks to offenders. According to yet another view, someone who is planning an attack and fears that potential robbery and/or burglary victims are armed may simply decide to acquire superior firepower and carry out the attack regardless. (For review, see Reiss and Roth 1993.) As you can see, much more research is required using a variety of methods to resolve this debate.

Whether you plan to conduct your own research projects, read others' research reports, or just think about and act in the social world, knowing about research methods has many benefits. This knowledge will give you greater confidence in your own opinions, improve your ability to evaluate others' opinions, and encourage you to refine your questions, answers, and methods of inquiry about the social world.

Of course, the methods of social science, as careful as they may be, cannot answer all questions of interest to criminologists. Should we do unto others what we would have them do unto us? That is a very important question that has been asked throughout history, but we must turn to religion or philosophy to answer questions about values.

Social research on the consequences of forgiveness or the sources of interpersonal conflict may help us understand and implement our values, but even the best research cannot tell us which values should guide our lives.

Conclusion

We hope this first chapter has given you an idea of what to expect in the rest of this book. Our aim is to introduce you to social research methods by describing what social scientists have learned about issues in criminology and criminal justice as well as how they learned it. The substance of social science inevitably is more interesting than its methods, but the methods also become more interesting when they are not taught as isolated techniques. We have focused attention on research on youth violence and delinquency in this chapter; in subsequent chapters, we will introduce research examples from other areas.

Chapter 2 continues to build the foundation for our study of social research by reviewing the types of problems that criminologists study, the role of theory, the major steps in the research process, and other sources of information that may be used in social research. We stress the importance of considering scientific standards in social research and review generally accepted ethical guidelines. Throughout the chapter, we use several studies of domestic violence to illustrate the research process.

Key Terms

Case report 17
Constructivist paradigm 16
Content analysis 22
Crime mapping 23
Descriptive research 10
Epistemology 8
Evaluation research 10
Experimental approach 21
Explanatory research 10
Exploratory research 10
Feminist research 18
Hermeneutic circle 17
Historical events research 22
Illogical reasoning 6
Inaccurate observation 6
Intensive interviewing 21
Interpretivism (interpretivist philosophy) 16
Intersubjective agreement 15
Mixed methods 20
Overgeneralization 5
Participatory action research 19
Participant observation 21
Peer review 8
Phrenology 9
Positivism 14
Postpositivism 14
Pseudoscience 9
Qualitative methods 20
Quantitative methods 20
Questionnaire 21
Resistance to change 7
Science 8
Secondary data analysis 22
Selective observation 5
Social science 8
Surveys 21
Transparent 8
Triangulation 21
Verstehen 16

Highlights

- Criminological research cannot resolve value questions or provide answers that will convince everyone and remain settled for all time.
- All empirically based methods of investigation are based on either direct experience or others' statements.
- Four common errors in reasoning are overgeneralization, selective or inaccurate observation, illogical reasoning, and resistance to change. Illogical reasoning results from the complexity of the social world, self-interestedness, and human subjectivity. Resistance to change may be due to unquestioning acceptance of tradition or of those in positions of authority or to self-interested resistance to admitting the need to change one's beliefs.
- Social science is the use of logical, systematic, documented methods to investigate individuals, societies, and social processes, as well as the knowledge produced by these investigations.

- Pseudoscience is claims based on beliefs and/or public testimonials, not on the scientific method.
- Criminological research can be motivated by policy guidance and program management needs, academic concerns, and charitable impulses.
- Criminological research can be descriptive, exploratory, explanatory, evaluative, or some combination of these.
- Positivism is the belief that there is a reality that exists quite apart from one's own perception of it that is amenable to observation.
- Intersubjective agreement is an agreement by different observers on what is happening in the natural or social world.
- Postpositivism is the belief that there is an empirical reality but that our understanding of it is limited by its complexity and by the biases and other limitations of researchers.
- Interpretivism is the belief that reality is socially constructed and the goal of social science should be to understand what meanings people give to that reality.
- The constructivist paradigm emphasizes the importance of exploring and representing the ways in which different stakeholders in a social setting construct their beliefs. Constructivists interact with research subjects to gradually develop a shared perspective on the issue being studied.
- Quantitative methods record variation in social life in terms of categories that vary in amount. Qualitative methods are designed to capture social life as participants experience it, rather than in categories predetermined by the researcher.
- Triangulation is the use of multiple research methods to study a single research question.

Exercises

➤ Test your understanding of chapter content. Take the practice quiz. SAGE edge™

1. What criminological topic or issue would you focus on if you could design a research project without any concern for costs? What are your motives for studying this topic? List at least four of your beliefs about this phenomenon. Try to identify the sources of each belief (e.g., television, newspaper, parental influence).
2. Develop four research questions related to your chosen topic or issue, one for each of the four types of research (descriptive, exploratory, explanatory, and evaluative). Be specific.
3. Read the abstracts of each article in a recent issue of a major criminological journal. Identify the type of research conducted for each study.
4. Find a report of social science research in an article in a daily newspaper. What are the motives for the research? How much information is provided about the research design? What were the major findings? What additional evidence would you like to see in the article to increase your confidence in the research conclusions?
5. Continue the debate between positivism and interpretivism with an in-class discussion. Be sure to review the guidelines for these research philosophies and the associated goals. You might also consider whether an integrated philosophy is preferable.
6. Outline your own research philosophy. You can base your outline primarily on your reactions to the points you have read in this chapter, but try also to think seriously about which perspective seems more reasonable to you.

Developing a Research Proposal

Will you develop a research proposal in this course? If so, you should begin to consider your alternatives.

1. What topic would you focus on if you could design a social research project without any concern for costs? What are your motives for studying this topic?
2. Develop four questions that you might investigate about the topic you just selected. Each question should reflect a different research motive: description, exploration, explanation, or evaluation. Be specific.
3. Which question most interests you? Would you prefer to attempt to answer that question with quantitative or qualitative methods? Why?

Web Exercises

1. You have been asked to prepare a brief presentation on a criminological topic or issue of interest to you. Go to the Bureau of Justice Statistics (BJS) website at www.ojp.usdoj.gov/bjs/. Browse the BJS publications for a topic that interests you. Write a short outline for a 5- to 10-minute presentation regarding your topic, including how the data were collected, statistics, and other relevant information.
2. Go to the Federal Bureau of Investigation (FBI) website at www.fbi.gov. Explore the types of programs and initiatives sponsored by the FBI. Discuss at least three of these programs or initiatives in terms of their purposes and goals. For each program or initiative examined, do you believe the program or initiative is effective? What are the major weaknesses? What changes would you propose the FBI make to more effectively meet the goals of the program or initiative?
3. Go to the website of a major newspaper and find an article that talks about the causes of violence. What conclusions does the article draw, and what research methods does the author discuss to back up his or her claims?
4. There are many interesting websites that discuss philosophy of science issues. Read the summaries of positivism and interpretivism at www.misq.org/misq/downloads/download/editorial/25/. What do these summaries add to your understanding of these philosophical alternatives?

Ethics Exercises

Throughout the book, we will be discussing the ethical challenges that arise in research on crime and criminal justice. At the end of each chapter, we will ask you to consider some questions about ethical issues related to that chapter's focus. We introduce this critical topic formally in Chapter 3, but we will begin here with some questions for you to ponder.

1. You have now learned about the qualitative study by Eric Madfis (2014) that investigated schools that had averted mass shootings in school shooting incidents. We think it provided important information for policymakers about the social dynamics that may help prevent these tragedies. But what would you do if you were conducting a similar study in a high school, and you learned that a student was planning to bring a gun to school to kill some other students? What if he was only thinking about it? Or just talking with his friends about how neat it would be? Can you suggest some guidelines for researchers?
2. Grossman et al. (1997) found that the Second Step program reduced aggressive behavior in schools and increased prosocial behavior. If you were David Grossman, would you announce your findings in a press conference and encourage schools to adopt this program? If you were a school principal who heard about this research, would you agree to let another researcher replicate (repeat) the Grossman et al. study in your school, with some classrooms assigned to receive the Second Step program randomly (on the basis of the toss of a coin) and others not allowed to receive the program for the duration of the study?

SPSS or Excel Exercises

Data for Exercise	
Dataset	**Description**
2013 YRBS.sav	The 2013 YRBS, short for Youth Risk Behavior Survey, is a national study of high school students. It focuses on gauging various behaviors and experiences of the adolescent population, including substance use and some victimization.
Monitoring the Future 2013 grade 10.sav	This dataset contains variables from the 2013 Monitoring the Future (MTF) study. This is data covers a national sample of 10th graders, with a focus on monitoring substance use and abuse.

Variables for Exercise	
Variable Name (Dataset)	**Description**
Q44 (YRBS)	This is a seven-category ordinal measure that asked how many times the respondent had drank five or more beverages in one sitting in the past 30 days.
V7108 (MTF)	This is a six-category ordinal measure that asked how many times the respondent had drank five or more drinks in a row in the past two weeks.

First, load the 2013 YRBS Subsample.sav file and complete the following:

1. Create a bar chart of variable Q44 by following the following menu options graphs->legacy dialogues->bar. Select the simple bar chart option, and click the arrow to add Q44 to the category axis text box. At a glance, what does this bar graph tell us about binge drinking among high school students? Are the data on the YRBS qualitative or quantitative? How do you know?
2. Write at least four research questions based on the bar chart you've created. Try to make one for each type of social research (descriptive, exploratory, explanatory, and evaluative). Think about the following: What stands out for you in this graph? What additional information do you need? Who should the research focus on?
3. Explain the possible reasons (policy, academic, or personal) we might want to research binge drinking or lack thereof. What organizations might be interested in this kind of research?
4. Triangulation refers to using multiple methods or measures to study a single research question. Let's see if we can triangulate the results from Part 1 using a different measure in the Grade10.2013.MTF.sav dataset.
   a. Create a bar chart of variable V7108.
   b. How do the estimates of binge drinking in the YRBS compare to these results?
   c. If there are any major differences, what do you think could explain them?

CHAPTER 2

The Process and Problems of Criminological Research

LEARNING OBJECTIVES

1. Describe the importance of theory to research.
2. Discuss the difference between deductive and inductive reasoning.
3. Describe the difference between a research question and a research hypothesis.
4. Explain how the research circle is really a research spiral.
5. Identify the difference between an independent variable and a dependent variable.
6. Define the different types of validity and generalizability.

When video of NFL player Ray Rice knocking his then-fiancée unconscious in an elevator hit the media, society got a firsthand image of intimate partner violence (IPV), which more often occurs behind closed doors than in public. Many celebrities have come forward with their stories and/or called the police for help after they have been assaulted by their partners, including Madonna, Halle Berry, Rihanna, and Evan Peters. While this media attention has increased society's awareness of IPV, it has always been a frequently committed and extremely costly crime, not only in terms of the physical and emotional injuries suffered

by the parties involved, but also in terms of shattered families. What to do about this major social problem, then, is an important policy question. For over 30 years, the criminal justice system has attempted to effectively respond to intimate partner violence and other domestic assaults in a way that best protects victims and punishes offenders.

In 1981, a historic experiment was funded by the Police Foundation and the Minneapolis Police Department to determine whether immediately arresting accused spouse abusers on the spot would deter future offending incidents. For misdemeanor cases, the experimental course of action involved the random assignment of police to respond by either arresting the suspect or giving the suspect a simple warning. The experimental treatment, then, was whether the suspect was arrested, and the researchers wanted to know whether arresting the suspect was better than not arresting the suspect in reducing recidivism (subsequent assaults against the same victim). The study's results, which were widely publicized, indicated that arrest did have a deterrent effect. Partly as a result of these findings, the percentage of urban police departments that made arrest the preferred response to complaints of domestic violence rose from 10% in 1984 to 90% in 1988 (Sherman 1992). Six other cities later carried out studies like the Minneapolis experiment (collectively, this was called the Spouse Assault Replication Program [SARP]), but city to city, the results were mixed (Buzawa and Buzawa 1996; Hirschel, Hutchison, and Dean 1992; Pate and Hamilton 1992; Sherman 1992; Sherman and Berk 1984). In some cities (and for some people), arrest did seem to prevent future incidents of domestic assault; in other cities, it seemed only to make matters worse, contributing to additional assault; and in still other cities, arrest seemed to have no discernible effect. After these **replications** of the original Minneapolis experiment, people still wondered, "Just what is the effect of arrest in reducing domestic violence cases, and how should the police respond to such cases?" The answer simply was not clear. The Minneapolis experiment, the studies modeled after it, and the related controversies provide many examples for a systematic overview of the social research process.

Replication: The ability of an entire study or experiment to be duplicated.

In this chapter, we shift from examining the *why* of social research to an overview of the *how*—the focus of the rest of the book. We will consider how to develop a question for social research and then how to review the existing literature about this question while connecting the question to social theory and, in many studies, formulating specific testable hypotheses. We will then discuss different social research strategies and standards for social research as a prelude to covering the details about these stages in subsequent chapters. You will find more details in appendixes A and B about reviewing the literature. We will use the Minneapolis experiment and the related research to illustrate the different research strategies and some of the related techniques. The chapter also expands on the role of social theories in developing research questions and guiding research decisions. By the chapter's end, you should be ready to formulate a research question, critique previous studies that addressed this question, and design a general strategy for answering the question.

Criminological Research Questions

How does a researcher interested in criminology and criminal justice–related issues decide what to study and research? A **criminological research question** is a question about some aspect of crime or criminals that you seek to answer through the collection and analysis of firsthand, verifiable, empirical data. The types of questions that can be asked are virtually limitless. For example, "Are children who are violent more likely than nonviolent children to use violence as adults?" "Does the race of a victim who is killed influence whether

Criminological research question: A question about some aspect of crime, criminals, or the criminal justice system, the answer to which is sought through collection and analysis of the firsthand, verifiable, empirical data.

someone is sentenced to death rather than life imprisonment?" "Why do some kinds of neighborhoods have more crime than others? Is it due to the kinds of people who live there or characteristics of the neighborhood itself?" "Does community policing reduce the crime rate?" "Has the U.S. government's war on drugs done anything to reduce the use of illegal drugs?" So many research questions are possible in criminology that it is more of a challenge to specify what does not qualify as a social research question than to specify what does.

But that does not mean it is easy to specify a research question. In fact, formulating a good research question can be surprisingly difficult. We can break the process into three stages: identifying one or more questions for study, refining the questions, and then evaluating the questions.

Identifying Criminological Research Questions

Formulating a research question is often an intensely personal process in addition to being a scientific or professional one. Curiosity about the social world may emerge from your "personal troubles," as Mills (1959) put it, or your personal experiences. Examples of these troubles or experiences could range from an awareness you may have that crime is not randomly distributed within a city but that there seem to be "good" or safe parts of town and "bad" or unsafe areas. Can you think of other possible research questions that flow from your own experiences in the world?

The experience of others is another fruitful source of research questions. Knowing a relative who was abused by a spouse, seeing a TV special about violence, or reading a gang member's autobiography can stimulate questions about general criminological processes. Can you draft a research question based on a relative's experiences, a TV show, or a book?

Other researchers may also pose interesting questions for you to study. Most research articles end with some suggestions for additional research that highlight unresolved issues. For example, Sherman et al. (1992) concluded an article on some of the replications of the Minneapolis experiment on police responses to spouse abuse by suggesting that "deterrence may be effective for a substantial segment of the offender population. . . . However, the underlying mechanisms remain obscure" (p. 706). A new study could focus on the mechanisms: Why or under what conditions does the arrest of offenders who are employed deter them from future criminal acts? Exactly what occurs when someone is arrested for domestic violence that may lead him or her not to be violent against a spouse in the future? Is it the brute fear of being arrested and having to go to jail? Is it the fear that one's employer may find out and fire him or her? Is it the fear that members of the community may learn about the arrest and the offender may lose his or her good standing in the neighborhood? Is it all these? Any issue of a journal in your field is likely to have comments that point toward unresolved issues.

The primary source of research questions for many researchers is theory. Many theoretical domains are used to inform research questions in our discipline, including sociological, psychological, and criminological theories. Some researchers spend much of their careers conducting research intended to refine an answer to one central question. For example, you may find rational choice theory to be a useful approach to understanding diverse forms of social behavior, like crime, because you think people do seem to make decisions on the basis of personal cost-benefit calculations. So you may ask whether rational choice theory can explain why some people commit crimes and others do not or why some people decide to quit committing crimes while others continue their criminal ways.

Finally, some research questions adopt a very pragmatic rationale concerning their research design. You may focus on a research question posed by someone else because doing so seems to be to your professional or financial advantage. For instance, some researchers conduct research on specific questions posed by a funding source in what is termed a request for proposals (RFP). (Sometimes the acronym RFA is used, meaning request for applications.) Or you may learn that the public defenders in your city are curious as to whether they are more successful in getting their clients acquitted of a criminal charge than private lawyers.

Refining Criminological Research Questions

As you may have guessed, coming up with interesting criminological questions for research is less problematic than focusing on a problem of manageable size. We are often interested in much more than we can reasonably investigate

with our limited time and resources (or the limited resources of a funding agency). Researchers may worry about staking a research project (and thereby a grant) on a particular problem, so they commit to addressing several research questions at once, and often in a jumbled fashion. It may also seem risky to focus on a research question that may lead to results discrepant with our own cherished assumptions about the social world. In addition, the prospective commitment of time and effort for some research questions may seem overwhelming, resulting in a certain degree of paralysis (not that the authors have any experience with this!).

The best way to avoid these problems is to develop the research question one bit at a time with a step-by-step strategy. Do not keep hoping that the perfect research question will just spring forth from your pen. Instead, develop a list of possible research questions as you go along. At the appropriate time, you can look through this list for the research questions that appear more than once. Narrow your list to the most interesting, most workable candidates. Repeat this process as long as it helps improve your research questions. Keep in mind that the research you are currently working on will likely generate additional research questions for you to answer.

Evaluating Criminological Research Questions

In the third stage of selecting a criminological research question, you evaluate the best candidate against the criteria for good social research questions: feasibility, given the time and resources available, social importance, and scientific relevance (King, Keohane, and Verba 1994).

The research question in the Minneapolis Domestic Violence Experiment, "Does the formal sanction of police arrest versus nonarrest inhibit domestic violence?" certainly meets the criteria of social importance and scientific relevance, but it would not be a feasible question for a student project because it would require you to try to get the cooperation of a police department. You might instead ask the question "Do people (students) think that arrest will inhibit domestic violence?" This is a question that you could study with an on-campus survey. Or perhaps you could work out an arrangement with a local battered women's shelter to study the question "What leads some women to call the police when they are the victims of domestic violence, and why do they sometimes not call?" A review of the literature, however, might convince you that this and other questions may not be scientifically relevant because they have been studied enough.

Feasibility

You must be able to conduct any study within the time frame and with the resources you have. If time is limited, questions that involve long-term change may not be feasible—for example, "If a state has recently changed its law so that it now permits capital punishment for those convicted of murder, does it eventually see a reduction in the homicide rate over time?" This is an interesting and important question but one that requires years of data collection and research. Another issue is what people or groups you can expect to gain access to. Although well-experienced researchers may be granted access to police or correctional department files to do their research, less seasoned and lesser-known researchers or students may not be granted such access. It is also often difficult for even the most experienced of researchers to be given full access to the deliberations of a criminal jury. For someone interested in white-collar crime, recording the interactions that take place in corporate boardrooms may also be taboo.

The Minneapolis Domestic Violence Experiment shows how ambitious social research questions can be when a team of seasoned researchers secures the backing of influential groups. The project required hundreds of thousands of dollars, the collaboration of many social scientists and criminal justice personnel, and the volunteer efforts of 41 Minneapolis police officers. But don't worry; many worthwhile research questions can be investigated with much more limited resources. Of course, for this reason, the Sherman and Berk (1984) question would not be feasible for a student project. You might instead ask the question "Do students think punishment deters spouse abuse?" Or perhaps you could work out an arrangement with a local police department to study the question "How satisfied are police officers with their treatment of domestic violence cases?"