

Table of Contents

CHAPTER 1. ADMISSIBILITY OF PSYCHOLOGICAL AND SCIENTIFIC EVIDENCE

I. INTRODUCTION

- § 1:1 Overview
- § 1:2 Admissibility generally

II. RULES OF ADMISSIBILITY

A. INTRODUCTION

- § 1:3 Generally
- § 1:4 Relevancy
- § 1:5 Balancing relevance against other concerns

B. EVIDENCE RULES GOVERNING OPINION TESTIMONY

- § 1:6 Fed. R. Evid. 701
- § 1:7 Fed. R. Evid. 702
- § 1:8 —Helpfulness and relevance
- § 1:9 —Specialized knowledge
- § 1:10 —Qualifications
- § 1:11 —Reliability
- § 1:12 Fed. R. Evid. 703
- § 1:13 Fed. R. Evid. 704
- § 1:14 Fed. R. Evid. 705
- § 1:15 Fed. R. Evid. 706

C. OTHER ADMISSIBILITY ISSUES

- § 1:16 Distinctions between novel and established psychology
- § 1:17 Results of experiments

III. ADMISSIBILITY STANDARDS FOR EXPERT EVIDENCE

- § 1:18 Overview

PSYCHOLOGICAL & SCIENTIFIC EVIDENCE

- § 1:19 The *Frye* test of admissibility
- § 1:20 *Daubert v. Merrell Dow Pharmaceuticals, Inc.*
- § 1:21 *General Electric Co v. Joiner*
- § 1:22 Applying *Daubert*, *Kumho Tire*, and Fed. R. Evid. 702 to expert testimony
- § 1:23 Applicability of *Daubert*, *Kumho* and Fed. R. Evid. 702 to social science expert testimony
- § 1:24 Expert testimony on false confessions

IV. HANDLING A PSYCHOLOGICAL OR SCIENTIFIC EVIDENCE CASE

- § 1:25 Generally
- § 1:26 Pretrial versus trial
- § 1:27 Enlist assistance for novel scientific evidence cases
- § 1:28 Use the best experts you can locate
- § 1:29 Collect and use source material
- § 1:30 Be ready for the court and the jury
- § 1:31 Be prepared to make a record
- § 1:32 Checklist for admission/exclusion of scientific evidence

CHAPTER 2. THE PSYCHOLOGICAL EXPERT

I. WHO IS (OR SHOULD BE) AN EXPERT IN PSYCHOLOGY

- § 2:1 Overview
- § 2:2 Principles courts use to judge expert qualifications
- § 2:3 Federal law
- § 2:4 —Standard of review
- § 2:5 —What standard of expertise?
- § 2:6 State laws
- § 2:7 —Sampling of state cases
- § 2:8 Experts' standards on expert qualifications
- § 2:9 Using social workers as expert witnesses
- § 2:10 The Specialty Guidelines for Forensic Psychologists
- § 2:11 —How to use the Specialty Guidelines
- § 2:12 Police and caseworkers as psychological “experts”

TABLE OF CONTENTS

II. QUALIFYING OR CHALLENGING A PSYCHOLOGICAL EXPERT

- § 2:13 How to qualify a psychological expert
- § 2:14 Stipulating to the credentials of the expert
- § 2:15 Challenging the qualifications of an expert

III. INVESTIGATING THE OPPOSITION'S EXPERT

- § 2:16 Generally
- § 2:17 Use Westlaw, other electronic databases and sources
- § 2:18 Use a psychology library and/or law library database
- § 2:19 Use your own expert
- § 2:20 What to do with the information you discover

IV. CHECKLISTS

- § 2:21 Checklist for using experts
- § 2:22 Checklist for qualifying an expert
- § 2:23 Checklist for challenging an expert

CHAPTER 3. INSANITY DEFENSE

I. INTRODUCTION

- § 3:1 Overview
- § 3:2 Affirmative defense
- § 3:3 Public perception of insanity defense

II. HISTORICAL ROOTS OF INSANITY DEFENSE

- § 3:4 Generally
- § 3:5 Famous case of *Daniel M'Naghten*
- § 3:6 Development of the law in the United States
- § 3:7 —Early cases
- § 3:8 —In the court of Bazelon: from *Durham* to *Brawner*
- § 3:9 —ABA criminal justice mental health standards
- § 3:10 —Model penal code (ALI) approach

III. THE CURRENT STATE OF THE INSANITY DEFENSE

- § 3:11 Generally
- § 3:12 Insanity Defense Reform Act (IDRA): the insanity defense in federal court
- § 3:13 Guilty but mentally ill
- § 3:14 Executing the mentally ill
- § 3:15 Burden of proof for the insanity defense
- § 3:16 Factors to consider before relying on the insanity defense

IV. SOMETHING LESS THAN INSANITY: DIMINISHED CAPACITY

- § 3:17 Generally
- § 3:18 Model penal code position
- § 3:19 Federal courts' position

V. CHECKLISTS

- § 3:20 Prosecutor's checklist for insanity defense cases
- § 3:21 Defense checklist for insanity defense cases

CHAPTER 4. COMPETENCY OF THE DEFENDANT

I. INTRODUCTION

- § 4:1 Competency vs. insanity
- § 4:2 Burden of proving competence
- § 4:3 Competency to waive rights
- § 4:4 Insisting on representation for competent, but mentally ill defendants

II. COMPETENCY TO STAND TRIAL

A. OVERVIEW

- § 4:5 Generally
- § 4:6 Significant early cases in the United States Supreme Court
- § 4:7 Change in Supreme Court philosophy
- § 4:8 Insanity Defense Reform Act (IDRA)

TABLE OF CONTENTS

B. MODERN CONTROVERSIAL COMPETENCY ISSUES

1. Constitutional Prohibitions Against Executing Insane or Mentally Retarded Individuals

§ 4:9 Constitutional prohibitions against executing insane individuals

§ 4:10 Execution of intellectually disabled defendants

§ 4:11 Juveniles

2. Forcible Medication and the Creation of Competency

§ 4:12 Generally

§ 4:13 Forcible medication for competence to be tried

§ 4:14 Forcible medication to create competence to be executed

C. DECISIONS IN COURTS OF APPEALS AND DISTRICT COURT

§ 4:15 Decisions in courts of appeals and district courts

§ 4:16 Constitutional challenges to Insanity Defense Reform Act (IDRA)

§ 4:17 Defendant found competent

§ 4:18 Defendant found incompetent, entitled to a competency hearing or entitled to discharge

§ 4:19 Necessity of appointing a defense competency expert

III. ABA STANDARDS AND STATE LAW REVIEW

§ 4:20 ABA Criminal Justice Mental Health Standard

§ 4:21 State law concerning competency

§ 4:22 Review of state statutory citations

CHAPTER 5. MENTAL DISORDERS, TESTS, AND DRUGS

I. INTRODUCTION

§ 5:1 Overview

§ 5:2 Introduction to psychology and psychiatry

PSYCHOLOGICAL & SCIENTIFIC EVIDENCE

- § 5:3 Review of mental disorders
- § 5:4 —Special note about substance-abuse disorders

II. CATEGORIES OF DISORDERS

A. OVERVIEW

- § 5:5 Introduction
- § 5:6 Psychosis

B. SCHIZOPHRENIA

1. Introduction

- § 5:7 Generally

2. Symptoms

- § 5:8 Generally
- § 5:9 Delusion
- § 5:10 Hallucinations
- § 5:11 Distinction between delusions and hallucinations
- § 5:12 Disorganized thinking and speech
- § 5:13 Grossly disorganized or abnormal motor behavior
- § 5:14 Diminished emotional expression
- § 5:15 Alogia
- § 5:16 Avolition

C. NEUROCOGNITIVE DISORDERS

1. Delirium

- § 5:17 Generally
- § 5:18 Causes for delirium
- § 5:19 Differences between psychosis and delirium

2. Major Neurocognitive Disorder

- § 5:20 Generally
- § 5:21 Causes of Major Neurocognitive Disorder

D. DEPRESSIVE DISORDERS

- § 5:22 Generally
- § 5:23 Major depressive episode
- § 5:24 Manic episode
- § 5:25 Mood episodes—Hypomanic episode
- § 5:26 Major depressive disorder

TABLE OF CONTENTS

§ 5:27 Bipolar disorder

E. DISSOCIATIVE DISORDERS

§ 5:28 Generally

§ 5:29 Dissociative amnesia

§ 5:30 Dissociative identity disorder

F. INTELLECTUAL DISABILITY (INTELLECTUAL DEVELOPMENTAL DISORDER (FORMERLY MENTAL RETARDATION))

§ 5:31 Generally

G. POSTTRAUMATIC STRESS DISORDER AND ANTISOCIAL PERSONALITY DISORDER

§ 5:32 Posttraumatic stress disorder

§ 5:33 Antisocial personality disorder

H. MISCELLANEOUS IMPULSE-CONTROL DISORDERS

§ 5:34 Generally

§ 5:35 Gambling disorder

§ 5:36 Intermittent explosive disorder

§ 5:37 Kleptomania

§ 5:38 Pyromania

III. TESTING PROCEDURES USED FOR PSYCHOLOGICAL EVALUATIONS

§ 5:39 Generally

§ 5:40 Minnesota multiphasic personality indices

§ 5:41 —Original MMPI

§ 5:42 —MMPI-2

§ 5:43 —MMPI-A

§ 5:44 —Checklist for using the MMPIs in the
courtroom

§ 5:45 Other tests used by psychiatrists and
psychologists

IV. DRUG THERAPY FOR INDIVIDUALS WITH MENTAL DISORDERS

A. OVERVIEW

- § 5:46 Generally
- § 5:47 Antipsychotic medication

B. DRUGS FOR MOOD DISORDERS

- § 5:48 Generally
- § 5:49 Antidepressant drugs
- § 5:50 Antimanic drugs
- § 5:51 —Lithium
- § 5:52 —Carbamazepine, valproic acid, Lamotrigine

V. NEUROPHYSIOLOGICAL AND NEUROPSYCHOLOGICAL MEASUREMENTS

- § 5:53 Quantifying the cognitive aspects of mental illness in the forensic patient
- § 5:54 —Overview of functional neuroanatomy
- § 5:55 —Limitations of DSM-5 in the forensic setting
- § 5:56 Neuropsychological and medical cognitive testing
- § 5:57 Medical and neurophysiological testing
- § 5:58 Expert's report and the dimensional assessment of cognition

CHAPTER 6. HANDLING THE PSYCHOLOGICAL CASE

I. INTRODUCTION

- § 6:1 Overview
- § 6:2 Issues unique to defense counsel

II. RECOGNIZING THE PSYCHOLOGICAL CASE AND OBTAINING EXPERT ASSISTANCE

A. RECOGNIZING MENTAL HEALTH ISSUES IN YOUR CASE

- § 6:3 Generally
- § 6:4 Discussions with the client and family

TABLE OF CONTENTS

- § 6:5 What to do when mental illness appears to be a factor
- § 6:6 —What needs to be accomplished in the courtroom
- § 6:7 Discovering your client's history of mental illness

B. LOCATING, RETAINING, AND CONFERRING WITH AN EXPERT

1. Overview

- § 6:8 Generally
- § 6:9 How to find a psychological expert

2. What your expert needs to be able to do

- § 6:10 Generally
- § 6:11 For the insanity defense
- § 6:12 For competency purposes
- § 6:13 Using an expert for other purposes
- § 6:14 —Diminished capacity
- § 6:15 —Psychological syndromes

III. ISSUES RELEVANT TO PROSECUTION AND DEFENSE

A. PRETRIAL PREPARATION

- § 6:16 Generally
- § 6:17 Importance of thorough psychological examinations
- § 6:18 Prosecution use of psychiatric examination—Constitutional limitations
- § 6:19 Importance of thorough psychological examinations—How an examination should be conducted
- § 6:20 —Review the “how-to” books published by forensic experts
- § 6:21 Preparing for and conducting examinations of experts
- § 6:22 —Preparation for direct examination
- § 6:23 —Familiarize yourself with the science and terminology
- § 6:24 —Mock examinations and videotaping

B. DIRECT EXAMINATION OF THE EXPERT

- § 6:25 Generally

PSYCHOLOGICAL & SCIENTIFIC EVIDENCE

- § 6:26 Basic components
- § 6:27 Letting the expert tell the story
- § 6:28 Using defusing techniques in direct exams
- § 6:29 Using your expert's report in direct examination
- § 6:30 Points about direct exam for defense lawyers

C. CROSS-EXAMINATION OF THE EXPERT

- § 6:31 Generally
- § 6:32 Importance of preparation
- § 6:33 Find the expert's writings and testimony
- § 6:34 Review opposing expert's opinion with your expert
- § 6:35 —Using factual disputes in cross-examination
- § 6:36 —Cross-examination about the expert's opinion
- § 6:37 Using standard cross-examination weapons
- § 6:38 Learning cross-examination of experts from the experts

IV. DEFENSE USE OF PSYCHOLOGY AT THE SENTENCING PHASE

- § 6:39 Generally
- § 6:40 Death penalty

CHAPTER 7. BATTERED WOMAN SYNDROME

I. INTRODUCTION

A. BACKGROUND AND DEFINITIONS

- § 7:1 Introduction to psychological syndromes in criminal cases
- § 7:2 Background of battered woman syndrome
- § 7:3 Defining battered woman syndrome
- § 7:4 —Is expert testimony necessary?

B. COMMON MYTHS ASSOCIATED WITH BATTERED WOMEN

- § 7:5 Generally
- § 7:6 Battered women could leave their abusers if they so wanted
- § 7:7 Police would protect abused women if asked

TABLE OF CONTENTS

§ 7:8 Women who are abused want to be abused

§ 7:9 Battered women kill while the man is
asleep/incapacitated

II. DEFENDANT’S USE OF BATTERED WOMAN SYNDROME IN THE COURTROOM

A. INTRODUCTION

§ 7:10 Admission of battered woman syndrome,
generally

§ 7:11 Battered woman syndrome in traditional self-
defense cases

§ 7:12 Defendant’s use of battered woman syndrome in
the courtroom—State statutes for BWS evidence

B. CONFRONTATIONAL VERSUS NONCONFRONTATIONAL KILLINGS

§ 7:13 What does “imminent” mean to battered women?

§ 7:14 —An alternate approach to nonconfrontational
killings: letting the jury consider the “totality of
the circumstances” in a self-defense posture

§ 7:15 —Taking nonconfrontation one step further: hired
killers

§ 7:16 Why hired killer cases are different from other
BWS cases

C. DEFENDANT’S USE OF BATTERED WOMAN SYNDROME IN THE COURTROOM—WHAT CAN A BWS EXPERT TESTIFY ABOUT IN A MURDER CASE

§ 7:17 Characteristics of the syndrome

§ 7:18 Myths and facts about battered women

§ 7:19 Whether the defendant is a battered woman

§ 7:20 Testimony on the ultimate issue

D. OTHER USES OF BWS IN THE COURTROOM

§ 7:21 Showing defendant’s state of mind

§ 7:22 Defendant’s use of BWS expert testimony in non-
homicide cases

§ 7:23 BWS in Federal Sentencing

- § 7:24 Prosecution's use of BWS testimony
- § 7:25 Can prosecution experts examine a BWS defendant?

III. PRACTICE AIDS

- § 7:26 How to approach a BWS case as defense counsel
- § 7:27 Prosecution and defense checklist for BWS cases

CHAPTER 8. CHILD SEXUAL ABUSE SYNDROME

I. SPECIAL PROBLEMS OF CHILD SEXUAL ABUSE CASES

- § 8:1 Overview
- § 8:2 Prosecution difficulties in child sexual abuse cases
- § 8:3 Defense difficulties in child sexual abuse cases
- § 8:4 Dilemma of courts handling sexual abuse cases

II. EXPERT TESTIMONY

A. ADVENT OF EXPERT TESTIMONY

- § 8:5 Overview
- § 8:6 Psychological aspects of child sexual abuse
- § 8:7 Confusion of the courts

B. POSSIBLE TYPES OF PSYCHOLOGICAL TESTIMONY

1. Introduction

- § 8:8 Generally
- § 8:9 Child sexual abuse accommodation syndrome

2. Behavioral Profiles of Sexually Abused Children

- § 8:10 Generally
- § 8:11 Do sexual abuse victims react in an identifiable pattern?
- § 8:12 Do sexually abused children act like other children?

3. Do Sexually Abused Children Lie About the Abuse?

- § 8:13 Generally

TABLE OF CONTENTS

- § 8:14 Posttraumatic Stress Disorder
- § 8:15 Suggestibility and interrogation of children
- § 8:16 Importance of videotaping interrogation
- § 8:17 Dangers of repetitive questioning
- § 8:18 Appropriate interrogation techniques
- § 8:19 Anatomical doll debate

C. JUDICIAL RESPONSE TO PSYCHOLOGICAL EVIDENCE OF SEXUAL ABUSE

- § 8:20 Generally
- § 8:21 Jurisdictions allowing behavioral profile evidence
- § 8:22 Jurisdictions disallowing testimony on behavioral profiles
- § 8:23 Jurisdictions allowing CSAAS testimony
- § 8:24 Jurisdictions disallowing CSAAS testimony
- § 8:25 Expert evidence on truthfulness of the children
- § 8:26 Posttraumatic Stress Disorder admissibility
- § 8:27 “Profile” evidence relating to sexual abusers

III. PROSECUTOR’S GUIDE TO HANDLING SEXUAL ABUSE CASES

- § 8:28 Generally
- § 8:29 Interviews and interrogations of child witness
- § 8:30 —Rules of interviewing children
- § 8:31 Know the law about admission of expert testimony
- § 8:32 Dealing with the child witness
- § 8:33 Working with the expert
- § 8:34 Determine which cases are better not prosecuted

IV. DEFENSE GUIDE TO HANDLING SEXUAL ABUSE CASES

- § 8:35 Generally
- § 8:36 Familiarize yourself with the literature
- § 8:37 Know the law on admission of expert testimony
- § 8:38 Addressing issue of expert testimony
- § 8:39 Short circuiting a prosecution before trial
- § 8:40 Direct and cross-examination of experts

V. CHECKLISTS

§ 8:41 Prosecutor's checklist for trying sexual abuse cases

§ 8:42 Defense checklist to handling sexual abuse cases

CHAPTER 9. RAPE TRAUMA SYNDROME (RTS)

I. INTRODUCTION

A. OVERVIEW

§ 9:1 Myths surrounding rape

§ 9:2 Rape trauma syndrome

B. DEFINING RAPE TRAUMA SYNDROME

§ 9:3 Overview

§ 9:4 The acute phase of RTS

§ 9:5 Long-term process

C. RTS AS EVIDENCE VERSUS RTS AS PART OF TREATMENT

§ 9:6 Generally

§ 9:7 Rape trauma syndrome and posttraumatic stress disorder

II. HOW STATE COURTS ADDRESS RAPE TRAUMA SYNDROME

§ 9:8 Generally

§ 9:9 RTS evidence as substantive evidence of rape

§ 9:10 RTS admissible on the issue of consent and corroboration

§ 9:11 RTS evidence as background for the jury

§ 9:12 States disallowing RTS evidence

III. PROS AND CONS TO ADMISSION OF RTS EVIDENCE

§ 9:13 Generally

§ 9:14 Positive points about RTS in rape trials

§ 9:15 Drawbacks to the use of RTS in rape trials

TABLE OF CONTENTS

**IV. PRACTICE GUIDES TO USING RTS
EVIDENCE AT TRIAL**

**A. PROSECUTION GUIDE TO USING RTS
EVIDENCE AT TRIAL**

- § 9:16 Generally
- § 9:17 Know the law
- § 9:18 Locate an expert
- § 9:19 Prepare the expert
- § 9:20 Use the expert in the courtroom
- § 9:21 Prosecutor's checklist

**B. DEFENSE GUIDE TO USING RTS
EVIDENCE AT TRIAL**

- § 9:22 Generally
- § 9:23 Know the law
- § 9:24 Locate an expert
- § 9:25 Prepare your approach to trial
- § 9:26 Using an expert for the defense
- § 9:27 Points to remember for cross-examination
- § 9:28 Defense checklist

**CHAPTER 10. DNA IN THE
COURTROOM**

I. INTRODUCTION TO DNA AND DNA TESTING

- § 10:1 Overview
- § 10:2 What is DNA?
- § 10:3 The nature of DNA
- § 10:4 Overview of RFLP analysis
- § 10:5 DQ-Alpha and Polymarker tests
- § 10:6 STR tests
- § 10:7 Y-STR tests
- § 10:8 Mitochondrial DNA tests
- § 10:9 The rapidly evolving science of DNA testing

**II. A CLOSER LOOK AT THE SCIENCE OF DNA
TESTING**

**A. THE RFLP METHOD OF CREATING DNA
PROFILES**

- § 10:10 Generally

PSYCHOLOGICAL & SCIENTIFIC EVIDENCE

- § 10:11 Extraction of DNA
- § 10:12 Fragmentation by restriction enzymes
- § 10:13 Gel electrophoresis
- § 10:14 Southern hybridization and visualization
- § 10:15 Hybridization
- § 10:16 Autoradiography and visualization of profiles
- § 10:17 “Amplification” of DNA using PCR
- § 10:18 —DQ-Alpha and Polymarker tests

B. SHORT TANDEM REPEATS (STRS)

- § 10:19 Generally
- § 10:20 Understanding the lab report in an STR case
- § 10:21 The role of subjective judgment in STR testing
- § 10:22 STR electropherograms
- § 10:23 Sources of ambiguity in STR interpretation
- § 10:24 —Mixtures
- § 10:25 —Degradation
- § 10:26 —Allelic dropout
- § 10:27 —Spurious peaks
- § 10:28 Reviewing electronic data in STR cases

C. Y CHROMOSOME STRS AND MITOCHONDRIAL DNA SEQUENCING

- § 10:29 Y chromosome STRs
- § 10:30 Mitochondrial DNA sequencing

D. DNA STATISTICS

- § 10:31 Generally
- § 10:32 Calculating frequency statistics
- § 10:33 Concerns about population structure
- § 10:34 Error rate statistics
- § 10:35 The “uniqueness” of DNA profiles
- § 10:36 Probabilities of exclusion from mixed samples
- § 10:37 Cold hit statistics

E. OTHER MATTERS

- § 10:38 Forensic use versus paternity case use

III. HOW THE COURTS HAVE APPROACHED DNA TESTING

- § 10:39 Generally

TABLE OF CONTENTS

- § 10:40 Jurisdictions admitting DNA evidence
- § 10:41 Jurisdictions disallowing or limiting DNA evidence
- § 10:42 —The early cases
- § 10:43 —Post-1992 NRC Report cases
- § 10:44 —Post-1996 NRC II Report cases: toward uniform admissibility of DNA evidence
- § 10:45 Statutory guidance

IV. SOME CRITICAL THOUGHTS ON DNA EVIDENCE

A. RELIABILITY, DATABANKS AND ERRORS

- § 10:46 Reliability and quality assurance
- § 10:47 Dragnets, databanks and cold hits
- § 10:48 Laboratory errors
- § 10:49 Inadvertent transfer of DNA

B. NEW TECHNOLOGY; NEW QUESTIONS

- § 10:50 Generally
- § 10:51 Financial interests of DNA experts
- § 10:52 Trial by mathematical probability
- § 10:53 Establishing protocol

V. GUIDES AND CHECKLISTS

A. PROSECUTOR'S GUIDE TO DNA EVIDENCE

- § 10:54 Generally
- § 10:55 Make certain the expert confirms the match
- § 10:56 Establish proper protocol
- § 10:57 Keep the explanation simple
- § 10:58 Know the law and keep the testimony within its limits
- § 10:59 Who should be an expert

B. DEFENSE LAWYER'S GUIDE TO USING DNA

1. Preparation

- § 10:60 Organize a strategy
- § 10:61 Know the law in the jurisdiction

PSYCHOLOGICAL & SCIENTIFIC EVIDENCE

- § 10:62 Take the time to learn the science
 - § 10:63 Determine whether you need an expert
 - § 10:64 Challenging the admissibility of DNA evidence
 - § 10:65 Deciding whether to file a motion in limine or request a voir dire hearing
2. Cross-examination of the DNA expert
- § 10:66 Generally
 - § 10:67 Using the pretrial statement
 - § 10:68 Using your own expert to prepare
 - § 10:69 Exploiting the expert's bias
 - § 10:70 Know how to discuss the problems of DNA
 - § 10:71 Challenging the expert's credentials/knowledge
 - § 10:72 Use their expert as foundation for yours
 - § 10:73 What to do with an unshakable expert
 - § 10:74 The safe areas to question

C. CHECKLISTS

- § 10:75 Prosecutor's checklist
- § 10:76 Defense checklist

CHAPTER 11. EVALUATING THE QUALITY OF SCIENTIFIC EVIDENCE

I. PREVALENCE OF SCIENCE IN THE COURTROOM

- § 11:1 Overview
- § 11:2 Benefits of scientific trials
- § 11:3 Growing concern over scientific errors
- § 11:4 Types of cases with scientific issues

II. CATEGORIES OF SCIENTIFIC EVIDENCE USED AT TRIAL

A. INTRODUCTION

- § 11:5 Overview
- § 11:6 Psychological evidence
- § 11:7 Novel scientific evidence
- § 11:8 Technologically generated evidence
- § 11:9 Crime lab evidence
- § 11:10 Miscellaneous scientific evidence

TABLE OF CONTENTS

§ 11:11 Combination scientific evidence

B. FINGERPRINT EVIDENCE

1. Generally

- § 11:12 Overview
- § 11:13 What is a fingerprint?
- § 11:14 The premises of fingerprint identification
- § 11:15 What is fingerprint identification?
- § 11:16 What is latent print identification?
- § 11:17 How is latent print identification done?
- § 11:18 Methodology
- § 11:19 How do LPEs reach conclusions of individualization?
- § 11:20 The conclusion of individualization
- § 11:21 Fingerprint accuracy
- § 11:22 Proficiency testing
- § 11:23 What is the role of computers in latent print identification?
- § 11:24 Qualifications of latent print examiners
- § 11:25 Exposed cases of misidentification
- § 11:26 “Casework testing”
- § 11:27 Forgery, fabrication, and planting
- § 11:28 Summary

2. Legal Treatment of Fingerprint Evidence

- § 11:29 Overview
- § 11:30 *People v. Jennings* and other early cases
- § 11:31 The post-*Daubert* cases
- § 11:32 Defense experts
- § 11:33 Digital enhancement

C. BALLISTICS AND TOOLMARKS

1. Overview

- § 11:34 Ballistics
- § 11:35 Introduction to firearm and toolmark identification

2. The Scientific Basis for Firearms and Toolmark Identifications

- § 11:36 Types of toolmarks
- § 11:37 Central pitfalls

PSYCHOLOGICAL & SCIENTIFIC EVIDENCE

- § 11:38 Subjective vs. objective approaches
- § 11:39 —The subjective approach
- § 11:40 —An attempt at objectivity: The CMS approach
- § 11:41 —Criticisms of CMS
- § 11:42 Proficiency testing
- § 11:43 Computerized firearms identification

3. Case Law

- § 11:44 Generally
- § 11:45 Firearms cases—State cases
- § 11:46 —Federal cases
- § 11:47 Toolmark identification cases pre-*Daubert*
- § 11:48 Case law—Toolmark cases post-*Daubert*

D. POLYGRAPH EVIDENCE

- § 11:49 Generally
- § 11:50 United States v. Scheffer
- § 11:51 Post Scheffer cases

III. TYPES OF ERRORS IN COMMON FORENSIC MATTERS

- § 11:52 Physiological fluids testing (serology)
- § 11:53 Bite mark comparisons
- § 11:54 DNA testing and comparisons
- § 11:55 Hypersensitivity of sniffing canines
- § 11:56 Fallacy of handwriting expertise

IV. DISTINGUISHING GOOD QUALITY SCIENCE FROM POOR QUALITY SCIENCE

- § 11:57 Overview
- § 11:58 Aspects associated with good quality science
- § 11:59 —Empirical evidence
- § 11:60 —Controlled studies
- § 11:61 —Ability to replicate results
- § 11:62 Separating science from law enforcement; blind testing, independent crime labs, and proficiency testing
- § 11:63 —An honest assessment of errors and associated dangers
- § 11:64 —Proficiency testing

TABLE OF CONTENTS

**CHAPTER 12. THE SCIENCE OF
MEMORY**

I. INTRODUCTION

- § 12:1 Overview
- § 12:2 What is memory?

II. MATTERS THAT AFFECT MEMORY

**A. MATTERS THAT AFFECT MEMORY
DURING PERCEPTION**

1. Introduction

- § 12:3 Overview
- § 12:4 Importance of meaning in memory
- § 12:5 Effect of drugs and alcohol on memory
- § 12:6 Flashbulb memories
- § 12:7 Role of expectations in perception

2. Trauma, Stress, and Memory

- § 12:8 Generally
- § 12:9 Trauma
- § 12:10 Stress

**B. MATTERS THAT AFFECT MEMORY
DURING STORAGE**

- § 12:11 Generally
- § 12:12 Learning new and different facts
- § 12:13 Passage of time
- § 12:14 —Curve of forgetting

**C. MATTERS THAT AFFECT MEMORY
DURING RETRIEVAL**

- § 12:15 Generally
- § 12:16 Effect of suggestive interrogation
- § 12:17 Confabulation
- § 12:18 —Confabulation with drugs/alcohol
- § 12:19 —Confabulation with hypnosis

III. HYPNOSIS IN CRIMINAL COURT

A. OVERVIEW

- § 12:20 Introduction

PSYCHOLOGICAL & SCIENTIFIC EVIDENCE

- § 12:21 What is hypnosis?
- § 12:22 A brief history of hypnosis
- § 12:23 Hypnosis moves to the criminal justice forum
- § 12:24 Medical/psychological uses of hypnosis

B. CRITICISMS OF FORENSIC HYPNOSIS

- § 12:25 Generally
- § 12:26 Hypnosis results in increased suggestibility
- § 12:27 Hypnosis causes a decrease in critical thinking
- § 12:28 Pseudomemories and confabulation
- § 12:29 “Hardening” of hypnotic memories

C. CASE LAW CONCERNING HYPNOSIS

1. Early Decisions

- § 12:30 Generally
- § 12:31 *Shirley* approach: total inadmissibility

2. Admissibility of Hypnotically Enhanced Testimony: Recent Case Law

- § 12:32 Generally
- § 12:33 Courts holding hypnosis per se admissible
- § 12:34 Courts conditionally admitting hypnotically
refreshed testimony with multiple factor
guidelines or measuring tests
- § 12:35 Courts generally disallowing hypnotically
refreshed testimony

IV. CHILDHOOD TRAUMAS, REPRESSED MEMORY, AND RECOVERED MEMORY

A. INTRODUCTION

- § 12:36 Generally
- § 12:37 Seek professional assistance

B. HOW CHILDREN’S MEMORY MAY BE AFFECTED BY REPEATED TRAUMA

1. Dissociation and “Splitting”

- § 12:38 Generally
- § 12:39 Dissociation
- § 12:40 Splitting and multiple personality disorder

TABLE OF CONTENTS

2. Repression

- § 12:41 How repression works
- § 12:42 Does repression exist?
- § 12:43 Can repressed memory be accurately retrieved?
- § 12:44 How memories are “recovered”
- § 12:45 “Recovered” memories place at trial

V. EXPERT TESTIMONY

A. TYPE OF EXPERT TO USE AND NECESSARY QUALIFICATIONS

- § 12:46 Generally
- § 12:47 Expertise for hypnosis cases
- § 12:48 —Expertise for drug/alcohol impaired memory cases
- § 12:49 Expertise relating to repressed and recovered memory

B. SCIENCE OF EYEWITNESS IDENTIFICATION

1. Overview

- § 12:50 Generally
- § 12:51 Variables affecting eyewitness identification

2. How Courts Address Issue of Expert Testimony on Eyewitness Identification

- § 12:52 State cases
- § 12:53 Federal Cases
- § 12:54 Standard of review

VI. TRIAL LAWYER’S GUIDE TO THE SCIENCE OF MEMORY

- § 12:55 Introduction
- § 12:56 Learn the law
- § 12:57 Discuss case with an expert
- § 12:58 Read up on the subject matter
- § 12:59 Plan your strategy
- § 12:60 Checklist for cases involving scientific memory issues

CHAPTER 13. HANDLING A CASE WITH SCIENTIFIC ISSUES

I. INTRODUCTION

§ 13:1 Overview

II. PRETRIAL

A. INTRODUCTION

§ 13:2 Generally

B. RULE 16 OF THE FEDERAL RULES OF CRIMINAL PROCEDURE: EXPANDED DISCOVERY OF SCIENTIFIC EVIDENCE

§ 13:3 Generally

§ 13:4 Prosecution's obligation

§ 13:5 Defense obligation

§ 13:6 Sanctions for nondisclosure or late disclosure

C. PRETRIAL ANALYSIS

§ 13:7 Generally

§ 13:8 Analysis of the law

§ 13:9 Analysis of the science

D. EXPERT WITNESSES

§ 13:10 Generally

§ 13:11 Appointment of experts

§ 13:12 Have the expert educate you

§ 13:13 Preparing for direct examination

§ 13:14 —Checklist for prosecution expert

§ 13:15 Checklist for defense expert

§ 13:16 Preparing for cross-examination

§ 13:17 —Preparing your witness

§ 13:18 —Preparing for the opposition's expert

E. MOTIONS

§ 13:19 Generally

§ 13:20 Discovery and expanded discovery

§ 13:21 Motions in limine

TABLE OF CONTENTS

§ 13:22 Motions for a *Frye/Daubert* hearing

III. TRIAL

§ 13:23 Generally

§ 13:24 Preservation of issues for appeal

IV. PRACTICE AIDS

§ 13:25 Prosecutor's checklist

§ 13:26 Defense checklist

APPENDICES

Appendix 1. Examples of Pretrial Strategies

Appendix 1A. *Frye* Hearing on the Admissibility of
Testimony Concerning an Accelerant
Sniffing Canine

Appendix 1B. Voir Dire Questions in Battered Woman
Syndrome Defense Case of Spousal
Homicide

Appendix 2. Sample Trial Examinations of Experts

Appendix 2A. Direct Examination of a Polygraph
Examiner in a Case Involving Child
Sexual Abuse Allegations

Appendix 2B. Examination of a Forensic Chemist on the
Issue of Whether She Was Qualified as
an Expert

Appendix 2C. Examination of a Genetic Expert
Concerning Genetic Samples Found on a
Tissue

Appendix 2D. Direct and Cross Examinations of a
Defense Psychiatrist on "Flashback"
Memories From Childhood After a
Seventeen-Year Hiatus

Appendix 2E. Direct and Cross-Examination of an
Expert in the Area of Drug-Alcohol Use
and Memory

Appendix 3. Challenging Evidence on Appeal

Appendix 3A. Appellant's Brief Challenging Expert
Testimony on Computer Comparison of
Acoustical Match of Gunshots

PSYCHOLOGICAL & SCIENTIFIC EVIDENCE

Table of Laws and Rules

Table of Cases

Index