

Contents

<i>Preface</i>	ix
<i>Introduction</i>	xiii
I. Clarifications and Caveats about the Scope of This Project	xvi
II. A Brief Overview of the Science and Technology	xxi
III. A Summary of the Chapters	xxv
1. Philosophical Issues	1
I. The Conceptual and the Empirical	5
II. Criterial and Inductive Evidence	8
III. Unconscious Rule Following	12
IV. Interpretation	15
V. Knowledge	17
VI. The Mereological Fallacy	20
2. The Concept of Mind	23
I. Neuro-Reductionism	24
II. Eliminative Materialism and the “Theory” of Folk Psychology	28
III. Two Examples of Neuro-Reductionism and Its Implications for Law	33
IV. Conceptions of Mind and the Role of Neuroscience in Law	42
3. Neuroscience and Legal Theory: Jurisprudence, Morality, and Economics	47
I. Jurisprudence	47
II. Emotion and Moral Judgments	53
III. Mind, Moral Grammar, and Knowledge	63
IV. Neuroeconomics	71
4. Brain-Based Lie Detection	79
I. fMRI Lie Detection	82
II. EEG Lie Detection (“Brain Fingerprinting”)	92
III. Analysis: Empirical, Conceptual, and Practical Issues	94

viii CONTENTS

5. Criminal Law Doctrine	121
I. <i>Actus Reus</i>	122
II. <i>Mens Rea</i>	130
III. Insanity	140
6. Criminal Procedure	148
I. Fourth Amendment	150
II. Fifth Amendment	161
III. Due Process	176
7. Theories of Criminal Punishment	179
I. A Brief Taxonomy of Theories of Criminal Punishment	183
II. The First Challenge: Brains and Punishment Decisions	186
III. The Second Challenge: Neuroscience and Intuitions about Punishment	191
Conclusion	208
<i>Bibliography</i>	211
<i>Table of Cases</i>	229
<i>Index</i>	233