

Contents

Foreword: Navigating a Post-Truth World: Ten Enduring Lessons from the Study of Pseudoscience xi

Scott O. Lilienfeld

Acknowledgments xix

Introduction: Pseudoscience: What It Costs and Efforts to Fight It xxi

I The Basics of Pseudoscience 1

1 Pseudoscience and the Pursuit of Truth 3

David K. Hecht

2 The Psychology of (Pseudo)Science: Cognitive, Social, and Cultural Factors 21

Emilio J. C. Lobato and Corinne Zimmerman

3 The Illusion of Causality: A Cognitive Bias Underlying Pseudoscience 45

Fernando Blanco and Helena Matute

4 Hard Science, Soft Science, and Pseudoscience: Implications of Research on the Hierarchy of the Sciences 77

Dean Keith Simonton

II What Pseudoscience Costs Society 101

5 Food-o-science Pseudoscience: The Weapons and Tactics in the War on Crop Biotechnology 103

Kevin M. Folta

6 An Inside Look at Naturopathic Medicine: A Whistleblower's Deconstruction of Its Core Principles 137

Britt Marie Hermes

- 7 Risky Play and Growing Up: How to Understand the Overprotection of the Next Generation 171**
Leif Edward Ottesen Kennair, Ellen Beate Hansen Sandseter, and David Ball
- 8 The Anti-Vaccine Movement: A Litany of Fallacy and Errors 195**
Jonathan Howard and Dorit Rubinstein Reiss
- III Scientific (or Pseudoscientific) Soundness 221**
- 9 Understanding Pseudoscience Vulnerability through Epistemological Development, Critical Thinking, and Science Literacy 223**
Arnold Kozak
- 10 Scientific Failure as a Public Good: Illustrating the Process of Science and Its Contrast with Pseudoscience 239**
Chad Orzel
- 11 Evidence-Based Practice as a Driver of Pseudoscience in Prevention Research 263**
Dennis M. Gorman
- 12 Scientific Soundness and the Problem of Predatory Journals 283**
Jeffrey Beall
- 13 Pseudoscience, Coming to a Peer-Reviewed Journal Near You 301**
Adam Marcus and Ivan Oransky
- IV Pseudoscience in the Mainstream 307**
- 14 “Integrative” Medicine: Integrating Quackery with Science-Based Medicine 309**
David H. Gorski
- 15 Hypnosis: Science, Pseudoscience, and Nonsense 331**
Steven Jay Lynn, Ashwin Gautam, Stacy Ellenberg, and Scott O. Lilienfeld
- 16 Abuses and Misuses of Intelligence Tests: Facts and Misconceptions 351**
Mark Benisz, John O. Willis, and Ron Dumont
- 17 Reflections on Pseudoscience and Parapsychology: From Here to There and (Slightly) Back Again 375**
Christopher C. French

V	Science Activism: How People Think about Pseudoscience	393
18	Using Case Studies to Combat a Pseudoscience Culture	395
	Clyde Freeman Herreid	
19	"HIV Does Not Cause AIDS": A Journey into AIDS Denialism	419
	Seth C. Kalichman	
20	Swaying Pseudoscience: The Inoculation Effect	441
	Kavin Senapathy	
21	The Challenges of Changing Minds: How Confirmation Bias and Pattern Recognition Affect Our Search for Meaning	451
	Indre Viskontas	
VI	Conclusion	465
22	Truth Shall Prevail	467
	Paul Joseph Barnett and James C. Kaufman	
	Contributor List	481
	Index	483