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Primitive Minds

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INTRODUCTION

1. See especially John Bender, "Enlightenment and the Scientific Hypothesis," *Representations* 60 (Winter 1997): 1–23; Lennard J. Davis, *Factual Fictions: The Origins of the English Novel* (New York: Columbia University Press, 1983); J. Paul Hunter, *Before Novels: The Cultural Contexts of Eighteenth-Century English Fiction* (New York: W. W. Norton & Co., 1992); Michael McKeon, *The Origins of the English Novel 1600–1740* (Baltimore: The Johns Hopkins University Press, 1987); Ian Watt, *The Rise of the Novel: Studies in Defoe, Richardson and Fielding* (Berkeley: University of California Press, 1957).

2. N. Katherine Hayles, "Constrained Constructivism: Locating Scientific Inquiry in the Theater of Representation," in *Realism and Representation: Essays on the Problem of Realism in Relation to Science, Literature, and Culture*, edited by George Levine (Madison: University of Wisconsin Press, 1993), 27–43 (29–30).

3. György Lukács, "Realism in the Balance," in *Aesthetics and Politics*, edited by Ernst Bloch (London: Verso, 1977), 28–59 (56).

4. Harry E. Shaw, *Narrating Reality: Austen, Scott, Eliot* (Ithaca, NY: Cornell University Press, 1999), xii–xiii.

5. Jason Daniel Tougaw, *Strange Cases: The Medical Case History and the British Novel* (New York: Routledge, 2006), 122.

6. George Levine, *Dying to Know: Scientific Epistemology and Narrative in Victorian England* (Chicago: University of Chicago Press, 2002), 1–43.

7. Vanessa Ryan has shown how Victorian novels highlight the role of nondeliberative thought in everyday mental processing, producing knowledge and insight that conscious thought cannot deliver as efficiently. Novels recognize the value of this “thinking without thinking” because they alert the reader to cognitive events that are usually invisible. See Ryan, “Fictions of Medical Minds: Victorian Novels and Medical Epistemology,” *Literature and Medicine* 25 (Fall 2006): 277–97; “Reading the Mind: From George Eliot’s Fiction to James Sully’s Psychology,” *Journal of the History of Ideas* 70.4 (October 2009): 615–35.

8. Mary Poovey, *A History of the Modern Fact: Problems of Knowledge in the Sciences of Wealth and Society* (Chicago: University of Chicago Press, 1998), 1–28.

9. Thomas Nagel, *The View from Nowhere* (Oxford: Oxford University Press, 1986).

10. Lorraine Daston, “Objectivity and the Escape from Perspective,” in *The Science Studies Reader*, edited by Mario Biagioli (New York: Routledge, 1999), 110–23.

11. Caroline Levine, *The Serious Pleasures of Suspense: Victorian Realism and Narrative Doubt* (Charlottesville: University of Virginia Press, 2003); Elizabeth Deeds Ermarth, *Realism and Consensus in the English Novel* (Princeton, NJ: Princeton University Press, 1983).

12. Amanda Anderson, *Powers of Distance: Cosmopolitanism and the Cultivation of Detachment* (Princeton, NJ: Princeton University Press, 2001).

13. As referenced below and in the chapters that follow, the work of, in particular, Roger Luckhurst, Pamela Thurschwell, and Athena Vrettos has explored the fluid boundary between spiritualism and mental science in the Victorian period. See also Nicola Bown, “What Is the Stuff That Dreams Are Made Of?” in *The Victorian Supernatural*, edited by Nicola Bown, Carolyn Burdett, and Pamela Thurschwell (Cambridge: Cambridge University Press, 2004), 151–72.

14. John Tyndall, “Address Delivered Before the British Association Assembled at Belfast,” in *Victorian Science: A Self-Portrait from the Presidential Addresses to the British Association for the Advancement of Science*, edited by George Basalla, William Coleman, and Robert H. Kargon (New York: Anchor Books, 1970), 436–78 (477). Hereafter referred to as “Belfast Address.”

15. Tyndall, “‘Materialism’ and Its Opponents,” *Fortnightly Review* 18 (1875): 579–99 (579).

16. Tyndall, “Belfast Address,” 476–77.

17. For an extended discussion of Tyndall’s recognition of the way aesthetics complements empirical science see Jason Lindquist, “‘The Mightiest Instrument of the Physical Discoverer’: The Visual ‘Imagination’ and the Victorian Observer,” *Journal of Victorian Culture* 13.2 (2008): 171–99.

18. *Ibid.*, 452–54. On late-Victorian efforts among professional scientists to reconcile religious values with scientific discoveries, see Peter J. Bowler, *Reconciling Science and Religion: The Debate in Early Twentieth-Century Britain* (Chicago: University of Chicago Press, 2001).

19. “Belfast Address,” 475.

20. *Ibid.*, 470.

21. Thomas Henry Huxley, *Evidence as to Man’s Place in Nature* (New York: D. Appleton & Co., 1873), 72.

22. Charles Darwin, *The Descent of Man, and Selection in Relation to Sex* (London: Penguin, 2004), 17.

23. *Ibid.*, 136. On the figure of the evolutionary scientist in *Descent*, see Misia Landau, *Narratives of Human Evolution* (New Haven, CT: Yale University Press, 1982), 39–60.

24. Hallam Tennyson, *Alfred, Lord Tennyson: A Memoir by his Son*, 4 vols. (Leipzig: Bernhard Tauchnitz, 1899), 2:85.

25. Sir Walter Scott, *Guy Mannering* (Edinburgh: T & A Constable, 1901), 151. Quoted in James Crichton-Browne, *Stray Leaves from a Physician's Portfolio* (London: Hodder and Stoughton, 1927), 1.

26. Oliver Wendell Holmes, *The Autocrat of the Breakfast Table* (Boston: Houghton, Mifflin & Co., 1894), 106–7.

27. Thomas Hardy, *A Pair of Blue Eyes* (New York: Henry Holt & Co., 1874), 168. Quoted in Crichton-Browne, *Stray Leaves*, 5. All further references to *Stray Leaves* cited in the text.

28. John Addington Symonds, *The Memoirs of John Addington Symonds*, edited by Phyllis Grosskurth (Chicago: University of Chicago Press, 1986), 57–58.

29. *Ibid.*, 58.

30. N. G. Waller, B. A. Kojetin, T. J. Bouchard et al., “Genetic and Environmental Influences on Religious Interests, Attitudes, and Values: A Study of Twins Reared Apart and Together,” *Psychological Science* 1 (1990): 138–42; Jeffrey L. Saver and John Rabin, “The Neural Substrate of Religious Experience,” *Journal of Neuropsychiatry* 9.3 (Summer 1997): 498–510.

31. D. Kapogiannis, A. K. Barbey, M. Su et al., “Neuroanatomical Variability of Religiosity,” *PLoS One* 4:9 (September 28 2009): e7180; F. Ng, “The Interface between Religion and Psychosis,” *Australia and New Zealand Journal of Psychiatry* 15.1 (February 2007): 62–66; D. Chan et al., “The Clinical Profile of Right Temporal Lobe Atrophy,” *Brain* 132.5 (2009): 1287–98; O. Denny and G. Lai, “Spiritualists and Religion in Epilepsy,” *Epilepsy Behavior* 12.4 (May 2008): 636–43; M. A. Persinger, “Religious and Mystical Experiences as Artifacts of Temporal Lobe Function,” *Perception Motor Skills* 53.3 (Part 2) (December 1983): 1255–62; J. I. Fleck, D. L. Green, J. L. Stevenson et al., “The Transliminal Brain at Rest: Baseline EEG, Unusual Experiences, and Access to Unconscious Mental Activity,” *Cortex* 44.10 (November–December 2008): 1353–63.

32. Wilder Penfield and Herbert Henri Jasper, *Epilepsy and the Functional Anatomy of the Brain* (Boston: Little, Brown and Co., 1954). Cited in John Pearce, “Dreamy States,” *ACNR* 3:2 (May–June 2003): 17–20 (19).

33. V. S. Ramachandran and Sandra Blakeslee, *Phantoms in the Brain: Probing the Mysteries of the Human Mind* (New York: HarperCollins, 1998), 174–98.

34. William James, *The Varieties of Religious Experience: A Study in Human Nature*, 1st ed. (Scotts Valley, CA: IAP, 2009), 8.

35. Marilynne Robinson, *Absence of Mind: The Dispelling of Inwardness from the Modern Myth of the Self* (New Haven, CT: Yale University Press, 2010).

36. James, *Varieties*, 13.

37. Sally Shuttleworth and Jenny Bourne Taylor, eds., *Embodied Selves: An Anthology of Psychological Texts 1830–1890* (Oxford: Clarendon Press, 1998); Jane Wood, *Passion and Pathology in Victorian Fiction* (Oxford: Oxford University Press, 2001); Athena

Vrettos, *Somatic Fictions: Imagining Illness in Victorian Culture* (Stanford, CA: Stanford University Press, 1995). See also Peter Melville Logan, *Nerves and Narratives: A Cultural History of Hysteria in Nineteenth-Century British Prose* (Berkeley: University of California Press, 1997).

38. Jenny Bourne Taylor, "Obscure Recesses: Locating the Victorian Unconscious," in *Writing and Victorianism*, edited by J. B. Bullen (London: Longman, 1997), 137–79 (158).

39. Laura Otis, *Networking: Communicating with Bodies and Machines in the Nineteenth Century* (Ann Arbor: University of Michigan Press, 2001), 226.

40. Henry Maudsley, *Natural Causes and Supernatural Seemings*, 2nd ed. (London: Kegan Paul, Trench & Co., 1887), 41.

41. Alison Winter, *Mesmerized: Powers of Mind in Victorian Britain* (Chicago: University of Chicago Press, 1998).

42. Roger Luckhurst, *The Invention of Telepathy* (Oxford: Oxford University Press, 2002), 10. On the networks of knowledge that surrounded spiritualism see also Luckhurst, "Passages in the Invention of the Psyche: Mind-Reading in London, 1881–84," in *Transactions and Encounters: Science and Culture in the Nineteenth Century*, edited by Roger Luckhurst and Josephine McDonagh (Manchester: Manchester University Press, 2002), 117–50.

43. Pamela Thurschwell, *Literature, Technology, and Magical Thinking* (Cambridge: Cambridge University Press, 2001); Richard Noakes, "Spiritualism, Science and the Supernatural in Mid-Victorian Britain," in *The Victorian Supernatural*, edited by Nicola Bown, Carolyn Burdett, and Pamela Thurschwell, 23–43. Other recent studies that link the spiritualist movement to shifting social formations in the late-Victorian period include Marlene Tromp, *Altered States: Sex, Nation, Drugs, and Self-Transformation in Victorian Spiritualism* (Albany, NY: SUNY Press, 2006); Jill Galvan, *The Sympathetic Medium: Feminine Channeling, the Occult, and Communication Technologies* (Ithaca, NY: Cornell University Press, 2010); Daniel Pick, *Svengali's Web: The Alien Enchanter in Modern Culture* (New Haven, CT: Yale University Press, 2000); Sarah Willburn, *Possessed Victorians: Extra Spheres in Nineteenth-Century Mystical Writings* (Aldershot, Hampshire: Ashgate, 2006).

44. See James R. Moore, *The Post-Darwinian Controversies: A Study of the Protestant Struggle to Come to Terms with Darwin in Great Britain and America 1870–1900* (Cambridge: Cambridge University Press, 1979).

45. Janis McLarren Caldwell, *Literature and Medicine in Nineteenth-Century Britain* (Cambridge: Cambridge University Press, 2004), 24.

46. Stephen J. Gould, *The Structure of Evolutionary Theory* (Cambridge, MA: Belknap Press of Harvard University Press, 2002), 193–95; 475–77; Joseph Carroll, "Introduction," *On the Origin of Species by Means of Natural Selection* by Charles Darwin (Peterborough, ON: Broadview Press, 2003), 30. Carroll argues (against Gould) that Darwin strips Lamarckism of all notion of evolutionary progress.

47. Gould identifies Cuvier's anti-evolutionist functionalism (the coordination of parts that cannot undergo change independently of one another, thereby rendering the transmutation of species practically impossible) and emphasis on extinction in the history of organic succession as influential in the development of paleobiology and his own theory of "punctuated equilibrium." See Gould, *Structure of Evolutionary Theory*, esp. 293–95.

48. Although Cuvier and Owen were both opponents of evolutionary adaptationism, neither unequivocally positioned species history within a Christian universe. Cuvier's functionalism, Gould stresses, privileged the material relationship between organism and environment over the formalist position that function followed only divinely created types. See Gould, *Structure*, 291–304. While Owen is often thought to have organized taxonomies around a set of Platonic archetypes, he did not see homologous organs representing a creator's functional "plan." See Ron Amundson, ed., *Richard Owen: On the Nature of Limbs* (Chicago: University of Chicago Press, 2007), xxxvi–vii.

49. Shuttleworth and Taylor give Freud no special prominence in the literature of Victorian mental science, referencing Freudian psychoanalysis only in relation to the science of hypnosis and nineteenth-century medical studies of dreams and hysteria. See *Embodied Selves*, 6, 68, 70, 166.

50. On Freud's spiritualism, see F. X. Charet, *Spiritualism and the Foundations of C. G. Jung's Psychology* (Albany, NY: SUNY Press, 1993), 171–227.

51. Edward Erwin, ed., *The Freud Encyclopedia: Theory, Therapy, and Culture* (New York: Routledge, 2001), 396–99. Pamela Thurschwell points out that despite his demystification of prophetic dreams, Freud "can't leave forecasting alone." See Thurschwell, "Forecasting Falls: Icarus from Freud to Auden to 9/11," *Oxford Literary Review* 30.2 (2008), 301–22 (209). In *Literature, Technology, and Magical Thinking*, Thurschwell shows how psychoanalysis emerges at the cultural juncture of new communications technology and psychical research, where newly imagined forms of intimacy carried a troublingly erotic charge.

52. Marilynne Robinson, *Absence of Mind*, 103–7.

53. See R. M. Young, *Mind, Brain and Adaptation in the Nineteenth Century: Cerebral Localization and Its Biological Context from Gall to Ferrier* (Oxford: Clarendon Press, 1970); Michael Davis, *George Eliot and Nineteenth-Century Psychology* (Aldershot, Hampshire: Ashgate Press, 2006), 1–9; Edward S. Reed, *From Soul to Mind: The Emergence of Psychology from Erasmus Darwin to William James* (New Haven, CT: Yale University Press, 1997); Rick Rylance, *Victorian Psychology and British Culture 1850–1880* (Oxford: Oxford University Press, 2000), 21–39.

54. Thomas Huxley, *Lessons in Elementary Physiology*, edited by Frederic S. Lee (New York: Macmillan & Co., 1900), 545.

55. Rylance, *Victorian Psychology*, 21–39.

56. Thomas Huxley, *Evolution and Ethics* (London: Macmillan & Co., 1893), 36.

57. Reed, *From Soul to Mind*, 5.

58. William B. Carpenter, "Physiology an Inductive Science," *British and Foreign Medical Review* 5 (April 1838): 317–42 (342).

59. See Sally Shuttleworth, *George Eliot and Victorian Science* (Cambridge: Cambridge University Press, 1984), 1–23.

60. Erasmus Darwin, *Zoonomia or the Laws of Organic Life*, 2 vols. (Dublin: P. Byrne, 1796–1800), 1: vii, 1.21. For a discussion of Darwin's evolutionary understanding of mind, see Alan Richardson, *British Romanticism and the Science of the Mind* (Cambridge: Cambridge University Press, 2001), 12–16.

61. *Zoonomia* 1:1. Emphasis in original.

62. *Ibid.*, 1: 20.

63. Robert Chambers, *Vestiges of the History of Natural Creation*, 10th ed. (London: John Churchill, 1853), 298.

64. Charles Darwin, *Descent*, 106.
65. On periodical publishing and the Victorian novel, see Linda K. Hughes and Michael Lund, *The Victorian Serial* (Charlottesville: University Press of Virginia, 1991); Graham Law, *Serializing Fiction in the Victorian Press* (New York: Palgrave Macmillan, 2000); Deborah Wynne, *The Sensation Novel and the Victorian Family Magazine* (Houndsmills, Basingstoke; Palgrave Macmillan, 2001).
66. George Croom Robertson, "Prefatory Words," *Mind* 1.1 (January 1876): 1–6 (1).
67. Debra Gettelman has also emphasized these interdisciplinary careers. See Gettelman, "Reverie, Reading, and the Victorian Novel" (Ph.D. diss., Harvard University, 2005), 21.
68. Charles Darwin, *Evolutionary Writings*, edited by James A. Secord (Oxford: Oxford University Press, 2008), 421.
69. Luckhurst, *Invention of Telepathy*, 17.
70. Henry G. Atkinson and Harriet Martineau, *Letters on the Laws of Man's Nature and Development* (Boston: Josiah P. Mendum, 1851), 9.
71. Huxley, *Lessons*, 544.
72. On this subject, see Davis, *George Eliot*, 122–34.
73. George Henry Lewes, *The Study of Psychology*, Problems of Life and Mind, 3rd series (London: Trübner & Co., 1879), 3–38. All further references cited in the text.
74. Herbert Spencer, *Essays: Scientific, Political, and Speculative*, 3 vols. (London: Williams and Norgate, 1891), 1:1–7. Originally published anonymously as "The Development Hypothesis," *The Leader* (March 20, 1852).
75. See Lorraine J. Daston, "British Responses to Psycho-Physiology, 1860–1900," *Isis* 69 (1978): 192–208; Rylance, *Victorian Psychology*, 39, 69–70; J. Schiller, "Physiology's Struggle for Independence in the First Half of the Nineteenth Century," *History of Science* 7 (1968): 64–89; Young, *Mind, Brain and Adaptation*, 234.
76. Alexander Bain, *The Emotions and the Will*, 2nd ed. (London: Longman Green & Co., 1865), 603.
77. *Ibid.*, 14.
78. Bain, "Review of 'Darwin on Expression,'" postscript to *The Senses and the Intellect* (London: Longman, Green & Co., 1873), 698.
79. On the limited influence of the theory of natural selection in the later nineteenth century see Peter J. Bowler, *The Eclipse of Darwinism: Anti-Darwinian Evolution Theories in the Decade around 1900* (Baltimore: The Johns Hopkins University Press, 1983); *The Non-Darwinian Revolution: Reinterpretation of a Historical Myth* (Baltimore: The Johns Hopkins University Press, 1992).
80. J. B. Lamarck, *Zoological Philosophy: An Exposition with Regard to the Natural History of Animals*, translated by Hugh Elliot (London: Hafner Publishing, 1963).
81. Ernst Haeckel, *Generelle Morphologie der Organismen*, 2 vols. (Berlin: G. Reiner, 1866).
82. Lamarck, *Zoological Philosophy*, 10.
83. See Thomas M. Dixon, *From Passions to Emotions: The Creation of a Secular Psychological Category* (Cambridge: Cambridge University Press, 2003), 137.
84. See Reed, *From Soul to Mind*, 100–101.
85. Lewes, *The Physical Basis of Mind*, Problems of Life and Mind, 2nd series (London: Trübner & Co., 1877), 107.
86. *Ibid.*, 107, 109.

87. Herbert Spencer, *First Principles* (London: Williams and Norgate, 1862), 221.
88. See C. U. M. Smith, "Evolution and the Problem of Mind: Part II. John Hughlings Jackson," *Journal of the History of Biology* 15.2 (Summer 1982): 241–62.
89. *Ibid.*, 245.
90. John Hughlings Jackson, "Remarks on the Evolution and Dissolution of the Nervous System," *Journal of Mental Science* 33 (1887): 24–48. Republished in *Selected Writings of John Hughlings Jackson*, edited by James Taylor, 2 vols. (New York: Basic Books, 1958), 2:45–118 (46).
91. Edwin Ray Lankester, *Degeneration: A Chapter in Darwinism* (London: Macmillan & Co., 1880), 32.
92. Henry Maudsley, *Natural Causes and Supernatural Seemings*, 2–3.
93. Max Nordau, *Degeneration* (translated from the 2nd ed. of the German work) (1895; reprint, New York: Howard Fertig, 1968), 56.
94. *Ibid.*, 57.
95. Nicholas Royle, *Telepathy and Literature* (Oxford: Basil Blackwell, 1990), 91.
96. Huxley, "On the Physical Basis of Life," *Fortnightly Review* 11 (February 1868): 129–45 (137).
97. Huxley, *Evidence as to Man's Place in Nature* (New York: D. Appleton & Co., 1873), 131.
98. Maudsley, *The Physiology of Mind; Being the First Part of a 3rd Ed. Revised, Enlarged, and in Great Part Rewritten of "The Physiology and Pathology of Mind"* (London: Macmillan & Co., 1876), 445.
99. Maudsley, *Natural Causes and Supernatural Seemings*, 260.
100. *Ibid.*, 225.
101. James, *Varieties*, 19.
102. For an extensive discussion of the implications of phrenology for self-advancement over disempowering determinism, see Sally Shuttleworth, *Charlotte Brontë and Victorian Psychology* (Cambridge: Cambridge University Press, 1996), 57–70.
103. Carpenter, *Principles of Mental Physiology*, 4th ed. (New York: D. Appleton & Co., 1894), 722. All further references cited in the text.
104. See also Davis, *George Eliot*, 123.
105. Carpenter, *Mesmerism, Spiritualism &c. Historically and Scientifically Considered* (New York: D. Appleton & Co., 1877), 4.
106. Carpenter, "Spiritualism and Its Recent Converts," *Quarterly Review* 131 (October 1871): 301–53.
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108. James Cowles Prichard, *A Treatise on Insanity and Other Disorders Affecting the Mind* (New York: Arno Press, 1973), 287.
109. John Barlow, *On Man's Power over Himself to Prevent or Control Insanity* (London: William Pickering, 1843), 12.
110. Sir William Hamilton, *Lectures on Metaphysics and Logic*, edited by H. L Mansel and J. Veitch., 4 vols. (Boston: Gould and Lincoln, 1859), 1:236.
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112. Thomas Laycock, *Mind and Brain; or, the Correlations of Consciousness and Organization*, 2 vols. (Edinburgh: Sutherland and Knox, 1860), 2:465–80.

113. John Addington Symonds Sr., "Habit," in *Miscellanies by John Addington Symonds, M.D.*, edited by his son, John Addington Symonds (London: Macmillan & Co., 1873), 293–324; Daniel Hack Tuke, *Sleepwalking and Hypnotism*, (London: J. & A. Churchill, 1884); H. Maudsley, *Physiology*, 246; John Hughlings Jackson, "Remarks on the Evolution and Dissolution of the Nervous System,"; "Lectures on the Diagnosis of Epilepsy," *The Medical Times and Gazette*, February 8, 1879, 141–43.

114. Carpenter, *Mesmerism*, 4.

115. *Ibid.*, 19.

116. Symonds, "Habit," 322.

117. Maudsley, *Physiology*, 208–14, 298.

118. *Ibid.*, 160.

119. *Ibid.*, 168.

120. Tuke, *Sleepwalking and Hypnotism*, 6.

121. *Ibid.*, 7.

122. James Braid, *Observations on Trance and Human Hibernation* (London: John Churchill, 1850).

123. See, for example, J. Milne Bramwell, "Hypnotism: A Reply to Recent Critics," *Brain* 22.1 (1899): 141–56; J. Mitchell Clarke, "Hysteria and Neurasthenia: Papers on Hypnotism, Hysterical Somnambulism and Double Consciousness," *Brain* 17.2 (1894): 272–80; Hack Tuke, "On the Mental Condition in Hypnosis," *The Journal of Mental Science* (April 1883): 55–80; J. Mortimer Granville, "Hypnotism," *British Medical Journal* (August 1881): 305. Tuke, *Sleepwalking and Hypnotism*; Albert Moll, *Hypnotism*, 2nd ed. (London: Walter Scott, 1890).

124. James, *Varieties*, 6.

125. James Sully, "The Dream as a Revelation," *Fortnightly Review* 59 (March 1893): 354–65 (355).

126. *Ibid.*, 357.

127. *Ibid.*, 358.

128. F. W. H. Myers, *Human Personality and Its Survival of Bodily Death*, 2 vols. (New York: Longmans, Green & Co., 1903), 1:2.

129. G. H. Lewes, "Of Vision in Art" *Fortnightly Review* 1 (July 15, 1865): 572–89, (576). All further references cited in the text.

130. George Levine, *The Realistic Imagination: English Fiction from Frankenstein to Lady Chatterley* (Chicago: University of Chicago Press, 1981), 6–7.

131. Paisley Livingston, "Why Realism Matters: Literary Knowledge and the Philosophy of Science," in George Levine, ed., *Realism and Representation: Essays on the Problem of Realism in Relation to Science, Literature, and Culture* (Madison: University of Wisconsin Press, 1993), 134–54 (150).

132. Edward O. Wilson, *Consilience: The Unity of Knowledge* (New York: Alfred A. Knopf, 1998), 64.

133. Peter Brooks, *Realist Vision* (New Haven, CT: Yale University Press, 2005), 62.

134. *Ibid.*, 111.

135. Spencer, *The Principles of Psychology*, 3rd ed. 2 vols. (New York: D. Appleton & Co., 1883), 1: 627.

136. George Eliot, *Daniel Deronda* (London: Penguin Books, 1995), 803. All further references cited in the text.

137. Thomas Hardy, *Tess of the d'Urbervilles* (London: Penguin Books, 2003), 68. All further references cited in the text.

138. Nicholas Dames, *The Physiology of the Novel: Reading, Neural Science and the Form of Victorian Fiction* (Oxford: Oxford University Press, 2007), 11. In a related study, Debra Gattelman has traced how the states of reverie and rapt absorption are specifically associated with novel reading in the period, thus suggesting both the imaginative potential of and the proximity to mental disorder that novels offered to Victorian culture. See note 67.

139. Robert Macnish, *The Philosophy of Sleep* (New York: D. Appleton & Co., 1834), 98. All further references cited in the text.

140. E. S. Dallas, *The Gay Science*, 2 vols. (London: Chapman & Hall, 1866), 2:9. All further references cited in the text.

141. Gillian Beer, *Darwin's Plots: Evolutionary Narrative in Darwin, George Eliot, and Nineteenth-Century Fiction*, 2nd ed. (Cambridge: Cambridge University Press, 2000), 220–41.

142. George Levine, *Darwin and the Novelists: Patterns of Science in Victorian Fiction* (Cambridge, MA: Harvard University Press, 1988), 5–7. See also John Glendening's account of the epistemological importance of relativity and contingency as presented in Darwin's figure of the "entangled bank." Glendening, *The Evolutionary Imagination in Late-Victorian Novels: An Entangled Bank* (Aldershot, Hampshire: Ashgate Publishing, 2007).

143. Auguste Comte, *A General View of Positivism*, translated by J. H. Bridges (London: Trübner & Co., 1865).

144. Charles Dickens, *A Christmas Carol and Two Other Christmas Books* (London: Collector's Library, 2004), 9.

145. Sully, "The Dream as a Revelation," 354.

CHAPTER 1

1. In addition to those described below, recent studies of Brontë's use of Gothic, Romantic, and realist conventions include Toni Wein, "Gothic Desire in Charlotte Brontë's *Villette*," *Studies in English Literature* 39.4 (1999): 733–46; Robyn R. Warhol, "Double Gender, Double Genre in *Jane Eyre* and *Villette*," *Studies in English Literature* 36.4 (1996): 857–75; Emily W. Heady, "Must I Render an Account? Genre and Self-Narration in Charlotte Brontë's *Villette*," *Journal of Narrative Theory* 36.3 (2006): 341–64; Heta Pyrohönen, *Bluebeard Gothic: Jane Eyre and Its Progeny* (Toronto: University of Toronto Press, 2010).

2. See Braun, "A Great Break in the Common Course of Confession: Narrating Loss in Charlotte Brontë's *Villette*," *ELH* 78:1 (Spring 2011): 189–212; Mary Jacobus, "The Buried Letter: Feminism and Romanticism in *Villette*," in *Villette: Charlotte Brontë*, New Casebooks Series, edited by Pauline Nestor (New York: St. Martin's Press, 1992), 121–40.

3. Shuttleworth, *Charlotte Brontë and Victorian Psychology*, 17.

4. Heather Glen, *Charlotte Brontë: The Imagination in History* (Oxford: Oxford University Press, 2002), 136.

5. Shuttleworth, *Charlotte Brontë and Victorian Psychology*, 141.

6. Shuttleworth puts more emphasis on the figure of monomania in Brontë's novels in this respect, showing how nineteenth-century psychiatry identified monomania as a form of partial insanity. While in *Villette*, Lucy on one occasion describes herself

as a monomaniac, both narrators diagnose themselves as hypochondriacal. I focus on hypochondria here too because its symptoms include clairvoyant foreboding. See Shuttleworth, *Charlotte Brontë*, esp. 51–56. On monomania, partial insanity, and the fragmented mind see also Simon During, “The Strange Case of Monomania: Patriarchy in Literature, Murder in *Middlemarch*, Drowning in *Daniel Deronda*,” *Representations* 23 (Summer 1988): 86–104.

7. On Victorian medical accounts of hypochondriasis, see below. Gettelman has explored the tension in *Jane Eyre* between the pleasures of reverie (which are mimicked in readerly absorption) and a sense that daydreaming or overidentification may cause disruptive excess. See Gettelman, “‘Making Out’ Jane Eyre,” *ELH* 74.3 (Fall 2007): 557–81.

8. Terry Eagleton, *Myths of Power: A Marxist Study of the Brontës*, 3rd ed. (Basingstoke, Hampshire: Palgrave Macmillan, 2005), 12.

9. *Ibid.*, 4.

10. *Ibid.*, 8–9.

11. Janna Henrichsen, “Choosing Servitude: The Influence of the Mosaic Law in *Jane Eyre*,” *Brontë Studies* 29 (July 2004): 105–10 (107).

12. John G. Peters, “‘We Stood at God’s Feet, Equal’: Equality, Subversion, and Religion in *Jane Eyre*,” *Brontë Studies* 29 (March 2004): 53–64 (61).

13. Janet L. Larson, “‘Who Is Speaking?’ Charlotte Brontë’s Voices of Prophecy,” in *Victorian Sages and Cultural Discourse: Renegotiating Gender and Power*, edited by Thais E. Morgan (New Brunswick, NJ: Rutgers University Press, 1990), 66–86. Caldwell describes the tensions between spiritual and secular interpretation in *Jane Eyre* as an effect of the literalization of biblical images. See Caldwell, *Literature and Medicine*, 102.

14. Charlotte Brontë, *Villette* (Ware, Hertfordshire: Wordsworth Editions Ltd., 1999), all further references cited in the text.

15. Amariah Brigham, *Observations on the Influence of Religion upon the Health and Welfare of Mankind* (Boston: Marsh, Capen & Lyon, 1835), 299.

16. Charlotte Brontë, “When Thou Sleepest,” *The Poems of Charlotte Brontë*, edited by Tom Winnifrith (Oxford: Basil Blackwell, 1984), 208.

17. Sandra M. Gilbert and Susan Gubar, *The Madwoman in the Attic: The Woman Writer and the Nineteenth-Century Literary Imagination*, 2nd ed. (New Haven, CT: Yale University Press, 2000).

18. *Ibid.*, 430–33.

19. See Ivan Kreilkamp, *Voice and the Victorian Storyteller* (New York: Cambridge University Press, 2005), 122–54; Karen Lawrence, “The Cypher: Disclosure and Reticence in *Villette*,” *Nineteenth-Century Literature* 42 (1988): 448–66; Helene Moglen, *Charlotte Brontë: The Self Conceived* (Madison: University of Wisconsin Press, 1984).

20. See, for example, Marie C. Hennedy, “Deceit with Benign Intent: Story-Telling in *Villette*,” *Brontë Studies* 28 (March 2003): 1–14; John Kucich, “Passionate Reserve and Reserved Passion in the Works of Charlotte Brontë,” *ELH* 52.4 (Winter 1985): 913–37.

21. Charlotte Brontë, *Jane Eyre* (London: Penguin, 2006), 187. All further references cited in the text.

22. “I will a round unvarnished tale deliver.” William Shakespeare, *Othello, Riverside Shakespeare* (Boston: Houghton & Mifflin, 1974), 1.iii.144–45.

23. On the metaphorical cooption of colonial slavery to represent gender relations in *Jane Eyre*, see Susan Meyer, “Colonialism and the Figurative Strategy of *Jane Eyre*,” in

Macropolitics of Nineteenth-Century Literature: Nationalism, Exoticism, Imperialism, ed. Jonathan Arac and Harriet Ritvo (Philadelphia: University of Pennsylvania Press, 1991), 159–83; Gayatri Chakravorty Spivak, “Three Women’s Texts and a Critique of Imperialism,” *Critical Inquiry* 12.1 (Autumn 1985): 243–61. See also Patrick Brantlinger, “Victorians and Africans: The Genealogy of the Myth of the Dark Continent,” *Critical Inquiry* 12 (1985): 166–203.

24. Anne McClintock, *Imperial Leather: Race, Gender and Sexuality in the Imperial Contest* (New York: Routledge, 1995), 21–74 (40).

25. Sharon Marcus, “The Profession of the Author: Abstraction, Advertising and *Jane Eyre*,” *PMLA* 110.2 (March 1995): 206–19. In *Villette*, too, Lucy seems both abstracted and abstracting: She describes how “in my reverie, methought I saw the continent of Europe, like a wide dream-land” (49); and she ends her story with a vision of the “destroying angel of the tempest” that wrecks vessels across the entire distance of the Atlantic, thus bringing M. Paul’s West Indian plantation into “imaginative proximity” (Marcus, 207) with European shores.

26. *Ibid.*, 207

27. H. Hunt, “On Hypochondriasis and Other Forms of Nervous Disease,” *Medical Times* 24 (1851): 150–53 (150).

28. Tougaw, *Strange Cases*, 102.

29. Janet Oppenheim, *Shattered Nerves: Doctors, Patients, and Depression in Victorian England* (New York: Oxford University Press, 1991), 96.

30. James Cowles Prichard, *A Treatise on Insanity*, 91.

31. *Ibid.*, 91.

32. *Ibid.*, 20–29.

33. John Conolly, *An Inquiry Concerning the Indications of Insanity*, edited by Richard Hunter and Ida Macalpine (London: Dawsons of Pall Mall, 1964), 103.

34. *Ibid.*, 93–177.

35. John Barlow, *On Man’s Power over Himself to Control Insanity*, 8.

36. Esquirol, *Mental Maladies*, 112.

37. Alison Byerly argues that even before reading *Modern Painters* in 1848, and certainly in *Villette*, Brontë illustrates Ruskin’s assertion that visual art must be more than imitation, combining the depiction of material things with the representation of inner experience. See Byerly, *Realism, Representation, and the Arts in Nineteenth-Century Literature* (Cambridge: Cambridge University Press, 1997), 93.

38. William Buchan, *Domestic Medicine: or a Treatise on the Prevention and Cure of Diseases by Regimen and Simple Medicine*, 9th ed. (London: W. Strahan et al., 1784). On the Brontë family’s reading see Clifford Whone, “Where the Brontës Borrowed Books,” *Brontë Society Transactions* 11.2 (1950): 344–58; Sally Shuttleworth, *Charlotte Brontë and Victorian Psychology*, 40.

39. Shuttleworth, *Charlotte Brontë and Victorian Psychology*, 28.

40. Buchan, *Domestic Medicine*, 360.

41. *Ibid.*, 362.

42. Buchan, *Advice to Mothers* (Boston: Joseph Bumstead, 1809), 45.

43. *Ibid.*, 108.

44. *Mental Maladies*, 47.

45. John Reid, *Essays on Hypochondriacal and Other Nervous Affections* (Philadelphia: M. Carey, 1817), 23.

46. Ibid., 286.
47. Ibid., 9.
48. Ibid., 12.
49. James Frederick Ferrier, "An Introduction to the Philosophy of Consciousness," *Blackwood's Edinburgh Magazine* 43 (April 1838): 437–52 (447).
50. Ibid., 441.
51. Ibid. (June 1838): 784–91 (784).
52. "Vestiges of the Natural History of Creation," *Edinburgh Review* 82 (July 1845): 1–85 (12). The reviewer principally objected to Chambers's sloppy scientific method.
53. Chambers, *Vestiges of the Natural History of Creation*, 290.
54. Sally Shuttleworth, "Pyschological Definition and Social Power: Phrenology in the Novels of Charlotte Brontë," in *Nature Transfigured: Science and Literature 1700–1900*, edited by John Christie and Sally Shuttleworth (Manchester, UK: Manchester University Press, 1989), 121–51. Nathan Elliott recently argued that Brontë's novels in fact resist the interpretive influence of phrenology—frequently exposing faculty psychology as a false lead—and instead rely on the Gothic conventions of hidden motive and disguise. See Elliott, "Phrenology and the Visual Stereotype in Charlotte Brontë's *Villette*," *Nineteenth-Century Studies* 22 (2008): 41–55.
55. Shuttleworth, *Charlotte Brontë and Victorian Psychology*, 42.
56. Ibid., 44.
57. See Richardson, *British Romanticism and the Science of the Mind*, 1–38.
58. Darwin, *Zoonomia*, 1:394. See Richardson, *British Romanticism*, 46.
59. William Wordsworth, *The Prelude*, in *Wordsworth: Poetical Works*, edited by Thomas Hutchinson (Oxford: Oxford University Press, 1987), Bk. 7, 11. 650–54.
60. Ibid., Bk. 2, 1.56.
61. Richardson, *British Romanticism*, 66–74.
62. G. H. Lewes, "Recent Novels: French and English," *Fraser's Magazine* 36 (1847): 686.
63. Charlotte Brontë to George Smith, April 18, 1858, *The Brontës: Their Lives, Friendships, and Correspondence*, edited by Thomas James Wise, 4 vols. (Philadelphia: Porcupine Press, 1980), 3:101–2; further cited as *Correspondence*.
64. On the significance of the "unity of species" debate to racial theory in the early Victorian period, see Robert J. C. Young, *Colonial Desire: Hybridity in Theory, Culture, and Race* (London: Routledge, 1995), 6–19.
65. James Cowles Prichard, *Researches into the Physical History of Man*, edited by George W. Stocking (Chicago: University of Chicago Press, 1973), 33–35. Prichard shifted the emphasis from culture or "civilization" to climate in the second edition (1826). See George W. Stocking, "From Chronology to Ethnology: James Cowles Prichard and British Anthropology," *Researches*, ix–cx (lxviii).
66. Prichard, *Researches*, 172.
67. William Lawrence, *Lectures on Physiology, Zoology, and the Natural History of Man, Delivered at the Royal College of Surgeons* (London: J. Callow, 1819); Thomas Hodgkin, "On Inquiries into the Races of Man," *Reports of the British Association for the Advancement of Science* 11 (1842): 52–55. The polygenetic argument for multiple original human types is represented by Robert Knox, *The Races of Men: A Fragment* (Philadelphia: Lea and Blanchard, 1850); Josiah Nott and George Gidden, *Types of Mankind* (London: Trübner, 1854); Louis Agassiz, "The Geographical Distribution of Animals,"

Christian Examiner and Religious Miscellany 48.2 (1850): 181–204; Henry Holland, “The Natural History of Man,” *Quarterly Review* 86 (1850): 1–40.

68. Patrick Matthew, *On Naval Timber and Arboriculture* (London: Longman, 1831), 370–71.

69. *Ibid.*, 381. Matthew observes of the theory that all species descend from “one Proteus principle of life capable of gradual circumstance-suited modifications and aggregations”: “There is more beauty and unity of design in this continual balancing of life to circumstance, and greater conformity to those dispositions of nature which are manifest to us, than in total destruction and new creation” (383–84). In turn of phrase as well as in meaning, this seems to anticipate Darwin’s famous remark that “there is grandeur in this view of life, with its several powers having being breathed originally into a few forms or only one.” Charles Darwin, *On the Origin of Species*, edited by Joseph Carroll (Peterborough, ON: Broadview, 2003), 398.

70. Matthew, *On Naval Timber*, 370.

71. Peter Bolt identifies how the imagery in Jane’s symbolic paintings links them with her portraits. The portrait of Blanche Ingram, for example (painted before Jane actually meets her), associates her with the cormorant of the earlier painting because both are adorned with a gold bracelet. See Bolt, “Jane Eyre’s Three Paintings: Biblical Warnings and Greek Legends,” *Victorian Web*, <http://victorianweb.org/authors/bronte/cbronte/bolt7.html> (January 2012). Although nominally more realist, this portrait is also clearly drawn from the “spiritual eye.”

72. Prichard, *A Treatise on Insanity*, 320.

73. *Ibid.*, 303.

74. *Ibid.*, 304.

75. *Ibid.*, 320–22.

76. *Ibid.*, 323.

77. Charlotte Brontë to James Taylor, January 15, 1851, *Correspondence*, III:200.

78. Charlotte Brontë to James Taylor, February 11, 1851, *Correspondence*, III:208.

79. Matthew, *On Naval Timber*, 375.

80. Charlotte Brontë to George Smith, October 30, 1852, *Correspondence*, IV:14.

81. Charlotte Brontë to G. H. Lewes, November 6, 1847, *Correspondence*, II:152–53.

82. Charlotte Brontë to W. S. Williams, November 6, 1852, *Correspondence* IV:17.

83. Charlotte Brontë to George Smith, [undated], 1852, *Correspondence* IV:17.

CHAPTER 2

1. “Doubtfully Divine Missions,” *All the Year Round* 15 (May 1866): 404–8 (408); this journal is further cited as *AYR*.

2. “Well Authenticated Rappings,” *Household Words* 17 (February 1858): 217–20.

3. “Wonders Will Never Cease,” *AYR* 1 (September 1859): 497–500 (497).

4. Dickens, “The Haunted House,” *AYR* Christmas Number (1859): 1–48 (5). See Louise Henson, “‘In the Natural Course of Things’: Ghosts and Science in Dickens’s *All the Year Round*,” in *Culture and Science in the Nineteenth-Century Media*, edited by Louise Henson, Geoffrey Cantor, Gowan Dawson, Richard Noakes, and Sally Shuttleworth (Aldershot, Hampshire: Ashgate Press, 2004), 113–23 (117–19). Robert Newsom also

describes Dickens's confidence in scientifically confirmed marvels like mesmeric clairvoyance and spontaneous combustion. See Newsom, *Dickens on the Romantic Side of Familiar Things* (New York: Columbia University Press, 1977), 8.

5. Dickens, "Strange and Yet True," *AYR* 7 (1862): 540–42 (540). Quoted in Henson, "In the Natural Course of Things," 114.

6. Charles Dickens, *Bleak House* (Oxford: Oxford University Press, 1996), 6. All further references cited in the text.

7. G. H. Lewes, "Dickens in Relation to Criticism," *Fortnightly Review* 17 (February 1872): 141–54 (144).

8. *Ibid.*, 145.

9. *Ibid.*, 144.

10. See Newsom, *Dickens on the Romantic Side of Familiar Things*, 1–9; Christopher Herbert, "The Occult in *Bleak House*," *Novel: A Forum on Fiction* 17.2 (Winter 1984): 101–15; Goldie Morgentaler, *Dickens and Heredity: When Like Begets Like* (Houndsmills, Basingstoke; Hampshire: Macmillan, 2000), 88–96; Harry Stone, *Dickens and the Invisible World: Fairy Tales, Fantasy and Novel-Making* (Bloomington: Indiana University Press, 1979), 39; Jonathan Arac, *Commissioned Spirits: The Shaping of Social Motion in Dickens, Carlyle, Melville and Hawthorne* (New Brunswick, NJ: Rutgers University Press, 1979), 114–38.

11. Arac, *Commissioned Spirits*, 164–85; Hilary Schor, *Dickens and the Daughter of the House* (Cambridge: Cambridge University Press, 1999), 178–207; John Romano, *Dickens and Reality* (New York: Columbia University Press, 1978), 8–82.

12. Audrey Jaffe, *Vanishing Points: Dickens, Narrative, and the Subject of Omniscience* (Berkeley: University of California Press, 1991).

13. See, for example, Newsom, *Dickens on the Romantic Side of Familiar Things*, 47–92; Herbert, "The Occult in *Bleak House*"; Michael Ginsberg, "Dickens and the Uncanny: Repression and Displacement in *Great Expectations*," *Dickens Studies Annual: Essays on Victorian Fiction* 13 (1984): 115–24.

14. Sara Thornton, "The Haunted House of Victorian Advertising: Hysteria, Paranoia, Perversion," *Anglophonia: French Journal of English Studies* 15 (2004): 59–73; Jen Cadwallader, "Spirits of the Age: Ghost Stories and the Victorian Psyche" (Ph.D. diss., University of North Carolina at Chapel Hill, 2009), 53–96. Cadwallader argues persuasively that ghost stories use contemporary psychology to reactivate human access to the divine. Louise Henson reads *A Christmas Carol*, *The Chimes*, and Dickens's shorter ghost stories alongside studies of the nervous origins of spectral illusions. See Henson, "Investigations and Fictions: Charles Dickens and Ghosts," in *The Victorian Supernatural*, 44–63. See also Hippolyte Taine, "Charles Dickens: son talent et ses œuvres," *Revue des deux mondes* (February 1, 1856): 618–47.

15. Peter Ackroyd, *Dickens* (London: Sinclair-Stevenson, 1990), 82; William Gordon Lennox and Margaret A. Lennox, *Epilepsy and Related Disorders*, 2 vols. (Boston: Little, Brown and Company, 1960), vol. 1, 704.

16. Fred Kaplan, *Dickens and Mesmerism: The Hidden Springs of Fiction* (Princeton, NJ: Princeton University Press, 1975), 38; Berg MS., Dickens to Emile de la Rue, January 1, 1845, quoted in Kaplan, *Dickens and Mesmerism*, 85; see Henson, "Investigations and Fictions," 46.

17. See, for example, Caroline Levine, "Narrative Networks: *Bleak House* and the

Affordances of Form,” *Novel* 42.3 (Fall 2009): 517–23; Elizabeth Deeds Ermarth, *Realism and Consensus in the English Novel*, 181–221; Arac, *Commissioned Spirits*, 1–12.

18. Jill Matus has analyzed how Dickens uses the figure of recovered memory and trauma in her account of episodes of discontinuous consciousness and self-loss. See Matus, *Shock, Memory and the Unconscious in Victorian Fiction* (Cambridge: Cambridge University Press, 2009), 83–120.

19. Charles Dickens, *David Copperfield* (Hertfordshire: Wordsworth Classics, 1992), 482.

20. The passage is quoted in the following studies: John Hughlings Jackson, “On a Particular Variety of Epilepsy (‘Intellectual Aura’),” *Brain* 11 (1888): 179–207 (185); James Crichton-Browne, *Stray Leaves*, 2; John Pearce, “Dreamy States,” 19.

21. Athena Vrettos identifies how fin-de-siècle accounts of the dreamy state recognize déjà vu as marking “the experiential borderland between science and faith.” See Vrettos, “Dying Twice: Victorian Theories of Déjà Vu,” in *Disciplinary at the Fin de Siècle*, edited by Amanda Anderson and Joseph Valente (Princeton, NJ: Princeton University Press, 2002), 196–218 (200).

22. John Hughlings Jackson, “Intellectual Warnings of Epileptic Seizures,” *Medical Times and Gazette* (December 23, 1876): 700–702 (702).

23. *Ibid.*, 702.

24. Jackson, “Lectures on the Diagnosis of Epilepsy,” 142.

25. Jackson, “On a Particular Variety of Epilepsy,” 186.

26. Jackson, “Lectures on the Diagnosis of Epilepsy,” 141.

27. Jackson, “On a Particular Variety of Epilepsy,” 183.

28. *Ibid.*, 181.

29. On Dickens’s connections with the asylum physicians see Richard A. Hunter and Ida Macalpine, “Dickens and Conolly: An Embarrassed Editor’s Disclaimer,” *TLS* 11 (August 1961): 534–35, cited in Graeme Tytler, “Dickens’s ‘The Signalman,’” *The Explicator* 53.1 (Fall 1994): 26–29; David Oberhelman, *Dickens in Bedlam: Madness and Restraint in His Fiction* (Fredericton, New Brunswick, CA: York Press, 1995); Susan Shatto, “Miss Havisham and Mr. Hopes the Hermit: Dickens and the Mentally Ill,” *Dickens Quarterly* 2.2 (June 1985): 43–49; and 2.3 (September 1985): 79–83.

30. See J. E. D. Esquirol, *Mental Maladies*, 151. Esquirol argues that hysteria, in particular, shares many of the symptoms of epilepsy, including precursory moodiness, convulsions, and often a permanent change in the psyche of its victim (151). See also Moritz Heinrich Romberg, *A Manual of the Nervous Diseases of Man*, 2 vols. (London: Sydenham Society, 1853), 2:202; Theodore Herpin, *Du pronostic et du traitement curatif de l'épilepsie* (Paris: Ballière, 1852), 459–65; S. A. Tissot, *Traité de l'épilepsie* (Lausanne: François Grasset, 1789). Oweisi Temkin has a helpful summary of the nineteenth-century debate about the relationship between epilepsy and hysteria. See Temkin, *The Falling Sickness: A History of Epilepsy from the Greeks to the Beginnings of Modern Neurology*, 2nd ed. (Baltimore and London: The Johns Hopkins University Press, 1971), 351–59.

31. M. J. Eadie, and P. F. Bladin, *A Disease Once Sacred: A History of the Medical Understanding of Epilepsy* (Eastleigh, Southampton: John Libbey & Co., 2001), 46–47.

32. Herbert Mayo, *Popular Superstitions and the Truths Contained Therein; with an Account of Mesmerism*, 3rd ed. (Philadelphia: Lindsay and Blakiston, 1852), 96.

33. Esquirol, *Mental Maladies*, 146.

34. Eadie and Bladin, *A Disease Once Sacred*, 55–56. In *A Manual of the Nervous Diseases of Man* Romberg identified as “abortive fits” those symptoms of epilepsy in which there is only a momentary loss of consciousness and minor spasmodic activity. See Romberg, *Manual*, 2:200.

35. E. Fisher, “Remarks on Epilepsy,” *Journal of Nervous and Mental Disorders* 13 (1886): 481–87; J. Corning, “Epilepsy: Its Clinical Manifestation, Pathology, and Treatment,” *New York Medical Journal* 45 (1887): 685–89; both cited in Walter J. Friedlander, *The History of Modern Epilepsy: The Beginning, 1865–1914* (Westport, CT: Greenwood Press, 2001), 81.

36. John Hughlings Jackson, “On the Anatomical, Physiological, and Pathological Investigation of Epilepsies,” *West Riding Lunatic Asylum Medical Reports* 3 (1873): 315–39 (323). Emphasis in original.

37. Jackson, “Variety of Epilepsy,” 183.

38. *Ibid.*, 181.

39. Jackson, “Remarks on the Evolution and Dissolution of the Nervous System,” *Selected Writings* 2:100.

40. *Ibid.*, 2:101

41. *Ibid.*, 2:96 (emphasis in original).

42. *Ibid.*

43. Jackson, “Intellectual Warnings of Epileptic Seizures,” 702.

44. Herbert Spencer, *The Principles of Psychology* (London: Longman, Brown, Green and Longmans, 1855), 550.

45. *Ibid.*, 549.

46. *Ibid.*, 548.

47. *Ibid.*, 582

48. *Ibid.*, 582, 610.

49. *Ibid.*, 577.

50. Spencer, *Social Statics: or, The Conditions Essential to Human Happiness* (London: John Chapman, 1851), 435, 467.

51. Spencer, *First Principles*, 412–16.

52. *Ibid.*, 531–50.

53. *Ibid.*, 280.

54. Spencer, *The Principles of Psychology*, 2nd ed., 2 vols. (New York: D. Appleton & Co. 1873) 1:608.

55. Fred Kaplan, *Dickens and Mesmerism*, 19–20, 53–55; Martin Willis and Catherine Wynn, “Introduction,” in Willis and Wynn, eds., *Victorian Literary Mesmerism* (Amsterdam: Rodopi B.V., 2006), 1–16 (2–3). Dickens’s respect for Elliotson and Townshend was considerable. He dedicated *Great Expectations* to Townshend and edited Townshend’s *Religious Opinions* (1869). In 1840 Elliotson invited Dickens to witness a demonstration of mesmerism, insisting, “I am anxious you should see human nature in a new state.” John Elliotson to Charles Dickens, May 1841, *The Pilgrim Edition of the Letters of Charles Dickens*, 12 vols. (Oxford: Clarendon Press, 1965–2002), 2:148n1.

56. Spencer, “A Theory Concerning the Organ of Wonder,” *The Zoist* 2 (1844–45): 316–25 (321).

57. Alison Winter describes the difficult career of therapeutic mesmerism in the 1830s. Notwithstanding that Thomas Wakely, editor of the influential *Lancet*, abandoned his unqualified contempt for mesmerism, Elliotson’s experiments continued to

be associated with the sensational stuff of mass media like the weekly penny pamphlets. See Winter, *Mesmerized*, 30–46.

58. Elliotson, *Human Physiology* (London: Longman, Rees et al., 1835), 661–63.

59. Elliotson, “Reports of Various Trials of the Clairvoyance of Alexis Didier, Last Summer, in London, Collected by Dr. Elliotson,” *The Zoist* 2 (1844–45): 477–529 (498).

60. Elliotson, “Instances of Double States of Consciousness Independent of Mesmerism,” *The Zoist* 4 (1846–47): 157–87 (164).

61. Catalogue of the library of Charles Dickens from Gadshill and Catalogue of the library of W. M. Thackeray (London: Piccadilly Fountain Press, 1935).

62. Augustine Calmet, *The Phantom World, or the Philosophy of Spirits, Apparitions &c* (London: Richard Bentley, 1850), 252.

63. Robert Owen, *Footfalls on the Boundary of Another World* (Philadelphia: J. B. Lippincott & Co., 1860), 117.

64. *Ibid.*, 209

65. *Ibid.*, 170.

66. Alfred, Lord Tennyson, *The Princess: A Medley*, edited by Henry W. Boynton (New York: Leach, Shewell, & Co., 1896), 1:13–17.

67. Nancy Aycock Metz has described how self-annihilation in Dickens’s writing registers the alienating force of a metropolitan landscape that betrays a vast history of decay and decline. See Metz, “Little Dorrit’s London: Babylon Revisited,” *Victorian Studies* 33.3 (Spring 1990): 465–86.

68. George Levine, *Dying to Know*, 5.

69. *Ibid.*, 149–55.

70. Catherine Gallagher, *The Body Economic: Life, Death, and Sensation in Political Economy and the Victorian Novel* (Princeton, NJ: Princeton University Press, 2006), 116. John Kucich’s earlier study argues that the novel’s preoccupation with death houses a longing for self-abnegation and that self-interest is a form of investment in selfhood which resists the pull to death. See Kucich, *Repression in Victorian Fiction: Charlotte Brontë, George Eliot, and Charles Dickens* (Berkeley: University of California Press, 1987), 201–13.

71. Timothy Peltason, “Esther’s Will,” *ELH* 59.3 (1992): 671–91 (698).

72. Peltason argues that the scene at the garden gate represents Esther’s power to remove herself from desire. “Esther’s Will,” 672.

73. Dickens, “A Curious Dance around a Curious Tree,” in Harry Stone, ed., *Uncollected Writings from Household Words, 1850–1859*, 2 vols. (Bloomington: Indiana University Press, 1968), 2:382–90; “Idiots,” *Uncollected Writings*, 1:101–11.

74. *AYR* 2 (February 1860): 392–96 (393).

75. *Ibid.*, 394.

76. *Ibid.*, 392.

77. Charles Dickens, *Our Mutual Friend* (Harmondsworth, Middlesex: Penguin Books, 1971), 257. All further references cited in the text.

78. Elliotson, *Human Physiology*, 369.

79. Mary Poovey, *Making a Social Body: British Cultural Formation, 1830–1864* (Chicago: University of Chicago Press, 1995), 155–82.

80. Edmund Saul Dixon, “A Microscopic Dream,” *Household Words* 17 (April 1858): 396–400 (396).

CHAPTER 3

1. George Eliot, "Review of *Modern Painters*, Vol. III," *Westminster Review* 65 (1856): 625–50 (626).
2. See George Levine, "George Eliot's Hypothesis of Reality," *Nineteenth-Century Fiction* 35.1 (1980): 1–28; Diana Postlethwaite, "George Eliot and Science," in *The Cambridge Companion to George Eliot*, edited by George Levine (Cambridge: Cambridge University Press, 2001), 98–118; Pamela Thurschwell, "George Eliot's Prophecies: Coercive Second Sight and Everyday Thought Reading," in *The Victorian Supernatural*, 87–108.
3. Sally Shuttleworth, *George Eliot and Nineteenth Century Science* (Cambridge: Cambridge University Press, 1984), 175–200.
4. Leona Toker, *Towards the Ethics of Form in Fiction: Narratives of Cultural Remission* (Columbus: The Ohio State University Press, 2010), 116–30 (118).
5. See Marc Redfield, *Phantom Formations: Aesthetic Ideology and the Bildungsroman* (Ithaca, NY: Cornell University Press, 1995), 134–70; Neil Hertz, *George Eliot's Pulse* (Stanford, CA: Stanford University Press, 2003), 1–19.
6. David Carroll, *George Eliot and the Conflict of Interpretations* (Cambridge: Cambridge University Press, 1992), 278–89.
7. George Levine, "George Eliot's Hypothesis of Reality," 3.
8. *Ibid.*, 9.
9. Ramachandran and Blakeslee, *Phantoms in the Brain*, 174–98.
10. On Lewes's and Eliot's "quasi-religious" account of the work of the imagination in scientific inquiry, see Davis, *George Eliot and Nineteenth-Century Psychology*, 161–87 (180).
11. On this subject see Peter Alan Dale, *In Pursuit of a Scientific Culture: Science, Art, and Society in the Victorian Age* (Madison: University of Wisconsin Press, 1989), 111–26.
12. G. H. Lewes, *The Foundation of a Creed*, 2 vols. Problems of Life and Mind, 1st series (Boston: James R. Osgood & Co., 1875), 2:122.
13. Eliot, "Notes on Form in Art," in A. S. Byatt and Nicholas Warren, eds., *George Eliot: Selected Essays, Poems, and Other Writings* (London: Penguin Books, 1990), 231–36.
14. *Ibid.*, 234.
15. *Ibid.*, 235.
16. Eliot, "Silly Novels by Lady Novelists," *Westminster Review* 66 (October 1856): 442–61 (449).
17. Eliot, "Notes on Form in Art," 234, 232.
18. *Ibid.*, 232.
19. Gillian Beer, *Darwin's Plots*, 137–95; Davis, *George Eliot*, 48–69.
20. Davis, *George Eliot*, 69–77. Although he objected both to Lamarck's progressivism and to the idea that an organism somehow wills its own development, Darwin himself continued to recognize the inheritance of acquired characteristics on evolution in combination with that of natural selection. See Joseph Carroll, "Introduction," *On the Origin of Species* (Peterborough, ON: Broadview Press, 2003), 30.
21. Eliot, "R. W. Mackay's *The Progress of the Intellect*," *Westminster Review* 54 (January 1851): 353–68 (354).
22. *Ibid.*, 179.

23. *Ibid.*, 180.
24. Herbert Spencer, "The Development Hypothesis, in *Essays Scientific, Political and Speculative*, 3 vols. (New York: D. Appleton & Co., 1896), 1:1–7.
25. George Henry Lewes, "Mr. Darwin's Hypotheses," Part III, *Fortnightly Review* 4 (July 1, 1868): 61–80 (70–72).
26. *Ibid.*, 78.
27. Royle, *Telepathy and Literature*, 107.
28. George Eliot, *Adam Bede* (Oxford: Oxford University Press, 1996), 178.
29. *Ibid.*, 179.
30. *Ibid.*, 177.
31. *Ibid.*, 91.
32. Thurschwell, "George Eliot's Prophecies," 89.
33. See Saleel Nurbhai and K. M. Newton, *George Eliot, Judaism and the Novels: Jewish Myth and Mysticism* (Houndmills, Basingstoke; Hampshire: Palgrave Macmillan, 2002), 48–49.
34. On the link between Gwendolyn and Mordecai as subjects of heightened consciousness, see Thurschwell, "George Eliot's Prophecies," 92–102; Jill Matus, *Shock, Memory and the Unconscious*, 149–52.
35. On Eliot's use of the figure of Paracelsus and reanimation in *The Lifted Veil*, see Nurbhai and Newton, *Judaism and the Novels*, 6.
36. See Shuttleworth, *George Eliot and Nineteenth Century Science*, 175–76.
37. George Eliot, *The Lifted Veil* (London: Virago Press, 1985), 19.
38. Toker, *Towards the Ethics of Form*, 118.
39. See Vrettos, *Somatic Fictions*; Evelyn Ender, *Sexing the Mind: Nineteenth-Century Fictions of Hysteria* (Ithaca, NY: Cornell University Press, 1995), 229–72; Carole Stone, "George Eliot's *Daniel Deronda*: The Case History of Gwendolen H.," *Nineteenth-Century Studies* 7 (1993): 57–67.
40. Catalepsy was sometimes identified as a nervous disorder in its own right, alongside hysteria, epilepsy, and others (see, for example, Esquirol, *Mental Maladies*, 109), and sometimes as a symptom of hysteria or another condition: "Catalepsy is characterized by loss of will and muscular rigidity. It occurs in paroxysms with loss of consciousness, the limbs remaining in for long periods in any position in which they are placed. It occurs in hysteria, various psychoses, hypnotic states, and organic brain disease." Daniel E. Hughes, *Hughes' Practice of Medicine*, 12th ed. (Philadelphia: P. Blakiston's Son & Co., 1922), 552.
41. Eliot, *Silas Marner* (Ann Arbor, MI: Ann Arbor Media Group, 2004), 29. All further references cited in the text.
42. Eliot, "Evangelical Teaching: Dr. Cumming," *Westminster Review* 64 (October 1855): 436–62 (442).
43. George Eliot to John Blackwood, London, January 12, 1861. *The George Eliot Letters*, edited by Gordon S. Haight, 9 vols. (New Haven, CT: Yale University Press, 1954–78), 3:371.
44. Eliot, "Notes on Form in Art," 234.
45. Shuttleworth, *George Eliot and Nineteenth Century Science*, 95.
46. George Eliot, *Middlemarch* (London: Penguin, 1994), 838.
47. William Tennent, *Memoirs of the Life of Reverend William Tennent* (Poughkeepsie, NY: Paraclete and Sheldon Potter 1815), 17.

48. Sarah Alley, *Account of a Trance or Vision of Sarah Alley* (New York: Joseph Rakestraw 1807), 5–8. Other contemporary accounts of encounters with Christ during a state of suspended consciousness include George de Benneville, *The Life and Trance of Dr. George de Benneville* (Norristown, PA: printed by David Sower, 1815); Samuel L. Mitchell, *Devotional Somnium, or, A Collection of Prayers and Exhortations Uttered by Miss Rachel Baker in the City of New York* (Sangerfield, NY: printed by Van Winkle and Wriley, 1816); and Charles William Twort, *The Vision of Judgment or the Return of Joanna from Her Trance* (London; printed by Charles W. Twort, 1829).

49. Isaiah Thomas, *The Prodigal Daughter, or, A Strange and Wonderful Relation* (Boston: Thomas's printing office, 1771).

50. Ann Taves, *Fits, Trances, and Visions: Experiencing Religion and Explaining Experience from Wesley to James* (Princeton, NJ: Princeton University Press, 1999), 25–46.

51. Taves, *Fits, Trances, and Visions*, 53.

52. Meric Casaubon, *A Treatise Concerning Enthusiasme*, ed. Paul J. Korshin (1656; repr., Gainesville, FL: Scholars' Facsimiles and Reprints, 1970), 82–83. All further references cited in the text.

53. James Braid, *Observations on Trance or Human Hibernation*, vi.

54. *Ibid.*, 36.

55. *Ibid.*, 43.

56. *Ibid.*, 56.

57. William Tebb and Edward Perry Vollum, *Premature Burial and How it May Be Prevented with Special Reference to Trance, Catalepsy and Other Forms of Suspended Animation* (London: S. Sonnenschein & Co., 1896), 23.

58. *Ibid.*, 25.

59. William Benjamin Carpenter, presidential address at the meeting of the British Association for the Advancement of Science, Brighton, 1872. Published as "Man the Interpreter of Nature," in *Nature and Man: Essays Scientific and Philosophical* (London; K. Paul, Trench & Co., 1888), 185–210 (187).

60. Carpenter, "Nature and Law," *The Modern Review* 1 (October 1880): 748–70 (753).

61. Carpenter, "Man the Interpreter of Nature," 194

62. *Ibid.*, 197.

63. Carpenter, "On the Psychology of Belief," The Roscoe Lecture, delivered before the Literary and Philosophical Society of Liverpool, November 24, 1873. Published in *Nature and Man*, 211–38 (228).

64. *Ibid.*, 223.

65. Carpenter, "On the Fallacies of Testimony in Relation to the Supernatural," *Contemporary Review* (January 1876): 279–95 (279).

66. *Ibid.*, 285.

67. *Ibid.*, 287.

68. *Ibid.*, 282–83.

69. Patrick Winden, *Silas Marner: Memory and Salvation* (New York: Twayne Publishers, 1992), 31.

70. Richard Menke, "Fiction as Vivisection: G. H. Lewes and George Eliot," *ELH* 67 (2000): 617–53 (642).

71. Lewes, "On the Dread and Dislike of Science," *Fortnightly Review* 29 (June 1878): 805–15 (811).

72. *Ibid.*, 811–12.
73. Eliot, “Evangelical Teaching,” 442.
74. Lewes, “Dread and Dislike of Science,” 815.
75. Lewes, *The Foundation of a Creed*, 2:121.
76. *Ibid.*, 2:116.
77. *Ibid.*, 2:116–19.
78. George Eliot, “Worldliness and Other-Worldliness: The Poet Young,” *Westminster Review* 11, new series (January 1857): 1–42 (42).

CHAPTER 4

1. Such inquiry anticipates current research into the cognitive value of nondeliberate or intuitive thought in complex intellectual activity. See Ryan, “Fictions of Mind.”
2. Daniel Pick, *Faces of Degeneration: A European Disorder, c. 1848–1918* (Cambridge: Cambridge University Press, 1989), 15.
3. B. A. Morel, *Traité des dégénérescences physiques, intellectuelles et morales de l'espèce humaine et des causes qui produisent ces variétés malades* (Paris: J. B. Baillière, 1857).
4. See Nancy Stephan, “Biological Degeneration: Races and Proper Places,” in *Degeneration: The Dark Side of Progress*, edited by J. Edward Chamberlain and Sander L. Gilman (New York: Columbia University Press, 1985), 97–120; Jenny Bourne Taylor, *In the Secret Theatre of Home: Wilkie Collins, Sensation Narrative, and Nineteenth-Century Psychology* (London: Routledge, 1988), 64–70.
5. Eugene S. Talbot, *Degeneracy: Its Causes, Signs, and Results* (London: Walter Scott Ltd., 1899), 63.
6. Max Nordau, *Degeneration*, 19. All further references cited in the text.
7. Henry Maudsley, *The Pathology of Mind* (New York: D. Appleton & Co., 1890), vi.
8. *Ibid.*, 67, 52.
9. *Ibid.*, 67.
10. Lankester, *Degeneration*, 62.
11. Dana Seitler has shown how corporeal atavism stamps ancestral history back onto the present, thus highlighting how reversal and retrogression structure the very modernist ethos that attempts a break from the past. See Seitler, *Atavistic Tendencies: The Culture of Science in American Modernity* (Minneapolis: University of Minnesota Press, 2008).
12. Winter, *Mesmerized*, 20; Janet Oppenheim, *The Other World: Spiritualism and Psychical Research in England, 1850–1914* (Cambridge: Cambridge University Press, 1985), 218–20.
13. W. B. Carpenter, *Mesmerism, Spiritualism, &c.*, 6.
14. *Ibid.*, 19.
15. *Ibid.*, 15.
16. See Alan Gauld, *A History of Hypnotism* (Cambridge: Cambridge University Press, 1995), 204, 273–98.
17. Braid, *Neurypnology; or, the Rationale of Nervous Sleep* (London: John Churchill, 1843), 12.
18. Chauncy Hare Townshend, *Facts in Mesmerism* (London: Longman, 1840), 7.

19. Oppenheim, *The Other World*, 221–22.
20. Myers, *Human Personality and Its Survival of Bodily Death*, 1:217. All further references cited in the text.
21. See Oppenheim, *The Other World*, 207–49.
22. Winter, *Mesmerized*, 187–212.
23. James Esdaile, *Mesmerism in India and Its Practical Application in Surgery and Medicine* (Hartford, CT: Silus Andrews & Son, 1847), 37.
24. *Ibid.*, 45.
25. John Campbell Colquhoun, *Isis Revelata: An Inquiry into the Origin, Progress and Present State of Animal Magnetism* (Edinburgh: Maclachlan and Stewart, 1836), 95.
26. Elliotson, *Human Physiology*, 667.
27. Kelly Hurley has argued that neo-Gothic forms respond to the theory of natural selection in combination with degenerationism. Darwinian evolution reduces humans to brute beasts and implies that they are as likely to retrogress as they are to progress to a higher intellectual and moral state. See Hurley, *The Gothic Body: Sexuality, Materialism and Degeneration at the Fin de Siècle* (Cambridge: Cambridge University Press, 1996).
28. George Du Maurier, *Trilby* (1895; reprint, London: facsimile reprint, Broadview Press, 2003), 416.
29. *Ibid.*, 176.
30. Wilkie Collins, “Magnetic Evenings at Home: To G. H. Lewes,” Letter I, *The Leader* (January 17, 1852), 64–65.
31. Taylor, *Secret Theatre*, 6, 8. See also Nicholas Rance, *Wilkie Collins and Other Sensation Novelists* (Rutherford, NJ: Fairleigh Dickinson University Press, 1991), 64–80.
32. Wilkie Collins, *The Woman in White* (London: Macmillan, 2005), 20.
33. Wilkie Collins, *The Haunted Hotel* (Phoenix Mill, Gloucestershire: Alan Sutton, 1990), 141, 165.
34. On science and gender in Collins see Sharrona Pearl, “Dazed and Abused: Gender and Mesmerism in Wilkie Collins,” in *Victorian Literary Mesmerism*, edited by Martin Willis and Catherine Wynne (New York: Rodopi, 2006), 163–82.
35. Compare Nicholas Dames’s account of “the culture of forgetfulness” in Collins’s novels from the 1860s. See Dames, *Amnesiac Selves: Nostalgia, Forgetting and British Fiction 1810–1870* (Oxford: Oxford University Press, 2001), 167–205 (180–81).
36. On this topic see Nicholas Saul, “Half a Gypsy: The Case of Ezra Jennings in Wilkie Collins’s *The Moonstone*,” in *The Role of the Romanies: Images and Counter-Images of ‘Gypsies’/Romanies in European Cultures*, edited by Nicholas Saul and Susan Tebbutt (Liverpool: Liverpool University Press, 2005), 119–44.
37. Wilkie Collins, *The Moonstone* (Oxford: Oxford University Press, 1999), 319. All further references cited in the text.
38. Pearl, “Gender and Mesmerism,” 167; A. D. Hutter, “Dreams, Transformations, and Literature: The Implications of Detective Fiction,” in *New Casebooks: Wilkie Collins*, edited by Lyn Pykett (New York: St. Martin’s Press, 1998), 181–209 (181).
39. See, for example, a report of a lecture at the Royal Institution, March 12, 1852, “On the Influence of Suggestion in Modifying and Directing Muscular Movement Independently of Volition,” published in *Nature and Man*, 169–72; “Electro-Biology and Mesmerism,” *Quarterly Review* 93 (September 1853): 501–57.
40. Arthur Conan Doyle, *A Study in Scarlet*, edited by Owen Dudley Edwards (Ox-

ford and New York: Oxford University Press, 1993), 6. All further references cited in the text.

41. Laura Otis describes how detection in Holmes's stories functions as "an imperial immune system" as it "identif[ies] and neutraliz[es] living threats to society" that invade from new regions of contact. Otis, *Membranes: Metaphors of Invasion in Nineteenth-Century Literature, Science, and Politics* (Baltimore: The Johns Hopkins University Press, 1999), 91.

42. Interestingly, Holmes's "methods"—including "retrospective narrative hypothesis, the importance of reading signs . . . the judicious use of tests, the preference for ruling out rather than ruling in, the use of maxims, and the claim to be engaged in a deductive science"—have been used to train medical students in diagnostic reasoning. See Kathryn Montgomery, "Sherlock Holmes and Clinical Reasoning," in *Teaching Literature and Medicine*, edited by Anne Hunsaker Hawkins and Marilyn Chandler McEntyre (New York: The Modern Language Association, 2000), 299–305, (299).

43. Smajic links ghost stories and detection through Victorian discoveries about the role of inference in vision. Smajic, *Ghost-Seers, Detectives, and Spiritualists: Theories of Vision in Victorian Literature and Science* (Cambridge: Cambridge University Press, 2010), 136.

44. In this way, as Nils Clausson has argued, the Gothic "questions and even subverts the aspirations of criminal science to subject crime and criminality to scientific analysis." See Clausson, "Degeneration, *Fin-de-Siècle* Gothic, and the Science of Detection: Arthur Conan Doyle's *The Hound of the Baskervilles* and the Emergence of the Modern Detective Story," *Journal of Narrative Theory* 35.1 (Winter 2005): 60–87 (63). This claim significantly revises Patrick Brantlinger's influential accounts both of sensation fiction as "a secularization and domestication of the mysteries of gothic romance" and of its maturation in the detective novel as the "transformation of metaphysical-religious knowledge into the solution of a crime puzzle." See Brantlinger, "What Is Sensational about the Sensational Novel?" *Nineteenth-Century Fiction* 37.1 (June 1982): 1–28 (8, 19).

45. J. Edward Chamberlin, "Images of Degeneration: Turnings and Transformations," in *Degeneration: The Myth of Progress*, edited by J. E. Chamberlin and S. L. Gilman (New York: Columbia University Press, 1985), 263–89.

46. Charles Darwin, *The Variation of Animals and Plants under Domestication*, 2 vols. (New York: D. Appleton & Co., 1887), 2:2.

47. Havelock Ellis, *The Criminal* (London: Walter Scott Publishing Co., 1913), 371.

48. *Ibid.*, 252–53.

49. Henry Maudsley, *Body and Mind: An Inquiry into their Connection and Mutual Influence Especially in Reference to Mental Disorders* (New York: D. Appleton & Co., 1886), 57.

50. *Ibid.*, 58.

51. Talbot, *Degeneracy*, 32.

52. *Ibid.*, 62.

53. Arthur Conan Doyle, "A Case of Identity," in *Sherlock Holmes: The Major Stories with Contemporary Critical Essay*, edited by John A. Hodgson (Boston: St. Martin's Press, 1994), 75. All further references cited in the text.

54. Brooks, *Realist Vision*, 3. On the panoramic vision “under the rooftops” see Jonathan Arac, *Commissioned Spirits*, 22–23.

55. Darwin, *Origin*, 397.

56. Smajic describes this scene as an enactment of the “disembodied panoptic eye” and evidence of Holmes’s spiritualist powers—here levitation. Smajic, *Ghost-Seers, Detectives and Spiritualists*, 133.

57. Quoted from the original prospectus of the Society for Psychical Research. Published in Frank Podmore, *The Naturalization of the Supernatural* (New York: The Knickerbocker Press, 1908), 1.

58. See, for example, Podmore’s conclusions about the physical phenomena of spiritualism: “the line between what was not possible to fraudulent ingenuity and what was not possible cannot be drawn with sufficient sharpness to arrant the invocation of any new agency.” Podmore, *Apparitions and Thought-Transference: An Examination of the Evidence for Telepathy* (London: W. Scott Ltd., 1894), 37.

59. Oppenheim, *The Other World*, 111–58; Luckhurst, *Invention of Telepathy*, 56–58.

60. Arthur Conan Doyle, *The New Revelation* (London: Hodder and Stoughton, 1918), 39.

61. Arthur Conan Doyle, *The History of Spiritualism*, 2 vols. (New York: Arno Press, 1975), 1:181.

62. F. W. H. Myers “The Subliminal Self,” *Proceedings of the Society for Psychical Research* 11 (1895), 334–593 (338).

63. *Ibid.*, 338.

64. Arthur Pierce and Frank Podmore, “Subliminal Self or Unconscious Cerebration,” *Proceedings of the Society for Psychical Research* 11 (1895): 317–32 (332).

65. Doyle, *History of Spiritualism*, 1: 38.

66. *Ibid.*, 1: 42.

67. Alfred Russel Wallace, *Miracles and Modern Spiritualism* (London: George Redway, 1896), 216.

68. Cesare Lombroso, “Nordau’s ‘Degeneration’: Its Value and Its Errors,” *The Century Magazine* 50 (May–October 1895): 936–40.

69. Cesare Lombroso, *The Man of Genius*, edited by Havelock Ellis (New York: Walter Scott Publishing, 1901), 21.

70. *Ibid.*, 63

71. *Ibid.*, 170.

72. *Ibid.*, 35.

73. Lombroso, “Nordau’s ‘Degeneration,’” 937.

74. Gina Lombroso-Ferrero, *Criminal Man According to the Classification of Cesare Lombroso* (New York: Putnam, 1911), xiv–xv.

75. Henry Maudsley, “Heredity in Health and Disease,” *Fortnightly Review* 39 (January–June 1886): 648–59 (656).

76. *Ibid.*, 651.

77. *Ibid.*, 652.

78. Darwin, *On the Origin of Species*, 110.

79. Quoted in Ellis, *The Criminal*, 253.

80. Darwin, *The Voyage of the Beagle* (London: J. M. Dent & Sons Ltd., 1959), 195.

81. Cannon Schmitt, *Darwin and the Memory of the Human: Evolution, Savages and South America* (Cambridge: Cambridge University Press, 2009), 32–56.
82. Pick, *Faces of Degeneration*, 109–52; David G. Horn, *The Criminal Body: Lombroso and the Anatomy of Deviance* (New York: Routledge, 2003), 43–51.
83. See Ronald R. Thomas, *Detective Fiction and the Rise of Forensic Science* (Cambridge: Cambridge University Press, 1999), 75–90.
84. Arthur Conan Doyle, *The Hound of the Baskervilles* (New York: The Modern Library, 2002), 42. All further references cited in the text.
85. Doyle, “A Scandal in Bohemia,” *Sherlock Holmes*, 32.
86. Doyle, “The Speckled Band,” *Sherlock Holmes*, 153.
87. Carpenter, *Principles*, 640.
88. For an 1890s account of the cranial morphology of prehistoric man, see J. G. Garson, “Remarks on Skulls Dredged from the Thames in the Neighbourhood of Kew,” *The Journal of the Anthropological Institute of Great Britain and Ireland* 20 (1891): 20–25.
89. Doyle, *History of Spiritualism*, 1:181.
90. Doyle, “When the World Screamed,” in *The Complete Professor Challenger Stories* (London: John Murray, 1976), 548.
91. *Ibid.*, 548.
92. Doyle, *The Lost World and Other Stories*, edited by Philip Gooden (London: Penguin, 2001), 158.
93. Doyle, “The Land of Mist,” *Complete Professor Challenger*, 501.
94. Doyle, “The Final Problem,” *Sherlock Holmes*, 218.

CHAPTER 5

1. Thomas Hardy, *The Life and Work of Thomas Hardy*, edited by Michael Millgate (London: Macmillan, 1984), 256.
2. *Ibid.*, 214.
3. Gowan Dawson has shown how Victorians associated mid-century evolutionism with “the notoriously dissipated ethics of the pagan world.” See Dawson, *Darwin, Literature and Victorian Respectability* (Cambridge: Cambridge University Press, 2007), 92.
4. “The Science of Fiction,” *Thomas Hardy’s Personal Writings*, edited by Harold Orel (New York: St. Martin’s Press, 1990), 134–38 (137).
5. John Glendenning, *The Evolutionary Imagination*, 69–106.
6. The now commonplace emphasis on Darwinian determinism in Hardy’s novels has been challenged in recent years. Gillian Beer argues that his characters find a consoling sense of continuity with nature, despite being sidelined by its non-human-centered plot. In *Dying to Know*, George Levine points out that Hardy’s naturalistic pessimism is offset by his emphasis on human consciousness as the source of meaning, “although with no sense that such power can transform the material world.” See Beer, *Darwin’s Plots*, 220–41; Levine, *Dying to Know*, 200–219 (202).
7. See Glendenning, *Evolutionary Imagination*, 70.
8. McKeon, *The Origins of the English Novel*, 225–72.

9. Hardy, "Candour in English Fiction," *Personal Writings*, 125–33 (127–28).
10. *Ibid.*, 127.
11. See David J. de Laura, "'The Ache of Modernism' in Hardy's Later Novels," *ELH* 34.3 (September 1967): 380–99.
12. J. Hillis Miller, *Thomas Hardy: Distance and Desire* (Cambridge, MA: Harvard University Press, 1970), 17.
13. Bruno Latour, *We Have Never Been Modern*, translated by Catherine Porter (Cambridge, MA: Harvard University Press, 1993), 36–37.
14. *Ibid.*, 37.
15. See Kevin Padian, "'A Daughter of the Soil': Themes of Deep Time and Evolution in Thomas Hardy's *Tess of the d'Urbervilles*," *Thomas Hardy Journal* 13.3 (1997): 65–81.
16. Kay Young describes such episodes in *Tess* as "dissociative," where dissociation means limiting self-reflection to that which is necessary for survival. Young suggests that these dissociative, automatic states precipitate tragic events in the novel but also represent a form of defense against their psychic consequences. See Young, *Imagining Minds: The Neuro-Aesthetics of Austen, Eliot, and Hardy* (Columbus: The Ohio State University Press, 2010), 157–84.
17. Thomas Hardy, *The Return of the Native*, edited by Phillip Mallett, 2nd ed. (New York: W. W. Norton and Co., 2006), 8. All further references cited in the text.
18. Jules Law links the conflation of prehistoric, medieval, and modern in the landscapes of *The Return of the Native* and *Tess* to the depiction of the female body as a site of conflicting attitudes toward historical change. See Law, "Sleeping Figures: Hardy, History, and the Gendered Body," *ELH* 65.1 (1998): 223–57.
19. Elaine Scarry points out the difference between Hardy's depictions of the deep embodiment of work in contrast to the half-absorption in one's activity of "play" (working the land as opposed to walking through it). See Scarry, *Resisting Representation* (New York: Oxford University Press, 1994), 49–90 (52).
20. In an interview with William Archer, Hardy explained, "my pessimism, if pessimism it be, does not involve the assumption that the world is going to the dogs. . . . On the contrary, my practical philosophy is distinctly meliorist." "Real Conversations II—With Mr. Thomas Hardy," *Critic* 38 (April 1901): 309–18 (317).
21. Hardy, *The Dynasts* (London: Macmillan, 1978), 21.
22. *Ibid.*, 22.
23. *Ibid.*, 702.
24. *Ibid.*, 705.
25. *Ibid.*, 8.
26. Henry Lyman, *Insomnia and Other Disorders of Sleep* (Chicago: W. T. Keener, 1885), 168.
27. Hack Tuke, *Sleep Walking and Hypnotism*, 37–40, 101.
28. *Ibid.*, 5.
29. *Ibid.*, 40.
30. *Ibid.*, 44.
31. Lyman, *Insomnia and Other Disorders*, 161–62.
32. Hamilton, *Lectures on Metaphysics*, 1:236.
33. *Ibid.*, 1:235.
34. Esquirol, *Mental Maladies*, 93.

35. Maudsley, *Pathology of Mind*, 112, 404.
36. See Tony James, *Dream, Creativity, and Madness in Nineteenth-Century France* (Oxford: Clarendon Press, 1995), 145–51; Ivan Leudar and Philip Thomas, *Voices of Reason, Voices of Insanity: Studies of Verbal Hallucinations* (London: Routledge, 2002), 8–14.
37. Alexandre Brière de Boismont, *Hallucinations, or the Rational History of Apparitions, Dreams, Ecstasy, Magnetism, and Somnambulism* (Philadelphia: Lindsay and Blakiston, 1853), xi. All further references cited in the text.
38. See Frank Podmore, *Studies in Psychical Research* (London: Routledge and Kegan Paul, Trench Trübner & Co., 1897), 9.
39. Frank Podmore, *Modern Spiritualism: A History and a Criticism*, 2 vols. (London: Methuen, 1902), 2: 76.
40. *Ibid.*, 2: 76–77.
41. Alfred Russell Wallace, *Miracles and Modern Spiritualism*, 43.
42. F. W. H. Myers, “Science and a Future Life,” in *Science and a Future Life with Other Essays* (London: Macmillan, 1901), 1–50.
43. Myers, “Tennyson as Prophet,” in *Science and a Future Life*, 127–65 (128). All further references cited in the text.
44. *The Literary Notebooks of Thomas Hardy*, edited by Lennart A. Björk, 2 vols. (London: Macmillan, 1985), 2:865n1.
45. *Ibid.*, 2:1907n
46. Hardy, “Letter to Dr. C. W. Saleeby,” quoted in Hardy, *Life and Work*, 400.
47. See Willburn, *Possessed Victorians*, 115–40.
48. Marie Corelli, *A Romance of Two Worlds* (London, 1896), 176. See Willburn’s discussion of “Victorian Women in Outer Space,” in *Possessed Victorians*, 134–40.
49. Alisha Siebers, “Marie Corelli’s Magnetic Revitalizing Power,” in *Victorian Literary Mesmerism*, edited by Martin Willis and Catherine Wynne (Amsterdam: Rodopi B.V., 2006), 183–202.
50. Théodore Flournoy, *From India to the Planet Mars: A Study of a Case of Somnambulism*, translated by Daniel B. Vermilye (New York and London: Harper Brothers Publishers, 1900), 140.
51. *Ibid.*, 26.
52. “To William Archer,” November 24, 1898, in *Thomas Hardy: Selected Letters*, edited by Michael Millgate (Oxford: Clarendon Press, 1990), 125.
53. “To H. W. Massingham,” July 7, 1907, in *Selected Letters*, 194.
54. Hardy, *Life and Works*, 309.
55. See “To Sir George Douglas,” December 21, 1888; “To Amy Lowell,” January 26, 1919, *Selected Letters*, 51, 329.
56. “As I am old-fashioned, and think lucidity a virtue in poetry, as in prose, I am at a disadvantage in criticizing recent poets who apparently aim at obscurity.” “To Ezra Pound,” March 18, 1921, *Selected Letters*, 357.
57. Susan M. Miller, “Thomas Hardy and the Impersonal Lyric,” *Journal of Modern Literature* 30.3 (2007): 94–115.
58. Thomas Hardy, *Collected Poems of Thomas Hardy* (New York: Macmillan, 1958).
59. *Ibid.*, 98.
60. This point is made by Marjorie Levinson. See Levinson, “Object-Loss and Object-Bondage: The Economics of Representation in Hardy’s Poetry,” *ELH* 73 (2006): 549–80.

61. *Daily Chronicle*, December 28, 1899. Reprinted in *Thomas Hardy's Public Voice: The Essays, Speeches, and Miscellaneous Prose*, edited by Michael Millgate (Oxford: Clarendon Press, 2001), 156–58 (157).
62. *Ibid.*, 158.
63. Hardy, *Life and Works*, 323.
64. *Ibid.*, 123.
65. *Ibid.*, 227.

CONCLUSION

1. Antonio Damasio, *Self Comes to Mind: Constructing the Conscious Brain* (New York: Pantheon Books, 2010), 13.
2. Damasio, *The Feeling of What Happens: Body and Emotion in the Making of Consciousness* (New York: Harcourt Brace & Co., 1999), 26.
3. *Ibid.*, 195–98.
4. *Ibid.*, 4.
5. *Ibid.*, 8.
6. Young, *Imagining Minds*, 1–28.
7. William James, *The Principles of Psychology*, 3 vols. (Cambridge, MA: Harvard University Press, 1981), 1:284.
8. *Ibid.*, 354.
9. *Ibid.*, 223.
10. *Ibid.*, 286.
11. *Ibid.*, 291.