The Origins of Agnosticism
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NOTES

Introduction

3. Ibid.
5. I must make it clear here that I do not see myself as a neo-Kantian, slavishly dependent on my master Kant. I am not, like the late-nineteenth-century German intellectuals, proclaiming that we should go "back to Kant." Neither would I endorse any call to find truth in one single author, whether it be "back to Marx" or "back to Weber." I would see in my interpretation of Kant the beneficial traces of my reading of Hegel, Kierkegaard, Marx, Nietzsche, Dilthey, Weber, Buber, Heisenberg, Eddington, and Barfield, among others.

Chapter One
The Agnostic Conundrum

Epigraph from Stephen, AA, 8-9.
1. Two editions appeared almost immediately in 1858, two more in 1859, and a fifth was published in 1867.
6. Andrew Seth, Scottish Philosophy, 180.
8. James A. H. Murray, ed., "Agnostic," 186. It is generally accepted that Huxley coined the word agnosticism. A description of a brief but inconclusive controversy questioning this point can be found in the Times Literary Supple-


12. It was not until 1947 that the authenticity of Hutton's account was questioned by Onions, who recognized the significance of the etymological discrepancy. See C. T. Onions, "Agnostic," 225.

13. We can also now deal with two important items having reached this point in the discussion. First, some scholars have claimed that the term agnostic is linguistically incorrect; however, they reach this conclusion since they assume that Hutton's story is authentic. [For example, see Alfred E. Garvie, "Agnosticism," 1:215.] To connect agnostic with the Greek word used in Acts 17:23 to mean "to an Unknown God" does not make etymological sense. But this whole difficulty is avoided if one sees agnostic as derived from gnostic. See Onions, "Agnostic," 225. Second, we can now fix the date of origin more accurately. Murray's claim (in Notes and Queries, 6th ser., 6, [18 Nov. 1882], 418) that Huxley invented the term in September of 1869 is incorrect because Hutton used the word agnostic in an article published 29 May 1869. Huxley seems to indicate that he coined the term when the Metaphysical Society had already begun its meetings, and Hutton claims that the event took place before the formation of the society, but there is no real conflict here between the two stories. On 21 April 1869, there was an organizational meeting of the society attended by both Hutton and Huxley. The next meeting, the first during which a paper was read (Hutton on 'Mr. Herbert Spencer's Theory of the Gradual Transformation of Utilitarian into Intuitive Morality by Hereditary Descent') took place on 2 June 1869. It seems safe to say that Huxley coined the term shortly after the organizational meeting held on April 21st at Willis's Rooms, that he considered that meeting to be the first session, and that Hutton rather promptly put the word into print about a month later but saw the proceedings of June 2d as the real starting point of the society. [If we are to accept Hutton's claim that Huxley presented the new term at Knowles's house, then the April 21st meeting at Willis's Rooms would be ruled out as the date of origin.] Why Hutton maintained that agnostic originated from the inscription on the Athenian altar of Acts is not clear, but perhaps he read this into Huxley's words on the basis of a reference to the altar of the 'Unknown and Unknowable' in one of Huxley's essays published earlier in the decade. ('On the Advisableness of Improving Natural Knowledge,' Fortnightly Review 3 [Jan. 1866], 636.)
14. Leslie Stephen also saw the agnostic-gnostic opposition as important for explaining the meaning of agnosticism. See Stephen, AA, 2.

15. Tyndall hinted at the inconsistency of modern Christianity in a similar fashion. "Then arose the sect of Gnostics,—men who know—who laid claim to the possession of a perfect science, and who, if they were to be believed, had discovered the true formula for what philosophers called the Absolute. But these speculative Gnostics were rejected by the conservative and orthodox Christians of their day as fiercely as are their successors the Agnostics,—men who don't know,—are rejected by the orthodox in our own." Tyndall, NF, 9.


18. T. H. Huxley, Hume (1879), 58; Huxley, SCT, 237.

19. Although short pieces in encyclopedias and dictionaries offer analyses of agnostic epistemology, larger works are strangely lacking. Cockshut's Unbelievers does not deal with the epistemological foundations of agnosticism. In his Agnosticism, Robert Flint emphasizes that agnosticism is primarily epistemological, but his rather loose definition of the doctrine leads him to find it throughout history, thus denying the distinctive flavor of Victorian agnosticism. D. W. Dockrill, in his article "The Origin and Development of Nineteenth Century English Agnosticism," succeeds in examining the epistemological dimension of Victorian agnosticism in the context of an analysis of how this new form of scepticism was grounded in the Victorian ethos.

20. Tyndall and Clifford are not always considered by scholars to be agnostics. Tyndall is often referred to as a materialist (see Bernard M. G. Reardon, From Coleridge to Gore, 297) and Clifford, according to Cockshut, was a dogmatic atheist who represented no one but himself (Cockshut, Unbelievers, 67, 123). With the exception of one article and an unpublished dissertation, there exist no detailed studies of Huxley, Stephen, Clifford, Tyndall, and Spencer as a group. See D. W. Dockrill, "Origin and Development of Nineteenth Century English Agnosticism," 3–31; Dockrill, "Studies in Nineteenth-Century English Agnosticism."

21. Ulke is so impressed by Hamilton's "philosophy of the conditioned" that in his recently published book he portrays the Scottish philosopher as the prime agnostic. See Karl-Dieter Ulke, Agnostisches Denken im Viktorianischen England. Strangely enough, Ulke sees agnosticism ending in 1865 when Mill's Examination of Sir William Hamilton's Philosophy supposedly de-
stroyed Hamilton’s credibility. This would place the end of agnosticism four years before Huxley coined the term. Scholars who have briefly noted the Kant-Mansel-agnosticism link include Garvie, “Agnosticism,” 214–20; Holloway, “Agnosticism,” 1:205–9; Ronald W. Hepburn, “Agnosticism,” 1:56–59; Corbishley, “Agnosticism,” 49–52; Calderwood, “Agnosticism,” 36–39; M. M. Waddington, Development of British Thought from 1820 to 1890, 129; Claude Welch, Protestant Thought in the Nineteenth Century, 254; Gilby et al., “Agnosticism,” 77–78; Sorley, History of British Philosophy to 1900, 243, 248; Benn, History of English Rationalism 1:37. Since many of these pieces are short encyclopedia articles they are understandably superficial. More substantial treatments are to be found in Ward’s Naturalism and Agnosticism, and Flint’s Agnosticism, but both are somewhat outdated. Dockrill’s “Origin and Development of Nineteenth Century English Agnosticism” is strong on the Mansel-agnosticism link but says little about Kant. Cockshut does not mention Kant or Mansel once throughout The Unbelievers.


24. Frederick Engels, Socialism Utopian and Scientific, 13; V. I. Lenin, Materialism and Empirio-criticism, 195. A number of twentieth-century scholars have agreed with Wace and Engels that agnosticism was indistinguishable from atheism. See Eileen Barker, “Thus Spake the Scientist," 90; Blackham, “Introduction—Humanism,” in Objections to Humanism, 14.

25. R1-TP, British Correspondence of John Tyndall at the Royal Institution, 3413. All letters, notebooks, and manuscripts from this collection will also be accompanied by the citation recommended by Friday et al. in John Tyndall, Natural Philosopher—R. I. MSS T., 20/C7, 52.


27. Webb, Study of Religious Thought, 83; Charles Singer, Religion and Science Considered in Their Historical Relations, 77; Copleston, History of Philosophy, 302; Kai Nielsen, “Agnosticism,” 17; Cockshut adheres to this view throughout The Unbelievers.

28. I shall adopt Baumer’s definition of religion here as a belief system that includes a transcendental element or a “concern for the metaphysical overtones of human life.” (Baumer, Religion and the Rise of Scepticism, 29.) This approach avoids a narrow definition which would restrict religion to a particular set of dogmas, and it avoids a too-broad definition of religion as devotion to any end outside the individual.


30. Hutton, “Moral Significance of Atheism,” 23. On the possibility of re-

31. Including the agnostics within the sceptical tradition raises a number of tricky questions. The term *scepticism* itself is rather vague, grouping together those who doubt or disbelieve generally accepted ideas. To be more specific and label the agnostics as religious sceptics, as Baumer has in *Religion and the Rise of Scepticism*, is awkward because it could apply equally to the fideists, who were sceptics but used sceptical arguments to support Christianity. However, to reserve irreligious sceptics for agnosticism is misleading, because this implies that the agnostics were antireligious. Philosophical scepticism, although capturing the importance of epistemology to the agnostics, fails to indicate their application of the notion of the limits of knowledge to a concept of God and the extravagances of Victorian theologians. The complexity of agnosticism eludes categorization here because the agnostics cannot be termed religious sceptics, irreligious sceptics or philosophical sceptics. I have therefore chosen to speak of agnosticism as a unique form of scepticism although it still strikes me as problematic.


33. Other contemporary works of the same first-rate quality are James Ward's *Naturalism and Agnosticism* (1899) and Jacob Gould Schurman’s *Agnosticism and Religion* (1896). Not as brilliant but still useful is A. W. Mome­rie's *Agnosticism* (1884). Richard A. Armstrong's *Agnosticism and Theism in the Nineteenth Century* (1905) and Henry C. Sheldon's *Unbelief in the Nineteenth Century* (1907) are not, despite their titles, major works on agnosticism.


38. Stephen voiced similar reservations about Enlightenment deism. He referred to constructive deism as the attempt to "substitute for Christianity a pure body of abstract truths, reposing on metaphysical demonstration." Deism decayed due to its internal weakness. "The metaphysical deity was too cold and abstract a conception to excite much zeal in his worshippers." Stephen, *HETEC* 1:169. Bicknell has pointed out that Stephen’s ambivalence toward the philosophes in his *History of English Thought* stems from his attempt to simultaneously demonstrate that orthodoxy had been destroyed in the last century and learn why deism had failed to capture the hearts and minds of the English. Bicknell, "Leslie Stephen’s ‘English Thought in the Eighteenth Century,” 108, 112, 118-19. See also Floyd Clyde Tolleson, Jr., *Relation Between Leslie Stephen’s Agnosticism and Voltaire’s Deism*. Tolleson argues that “Voltaire, among other influences, worked to make Leslie
Stephen an agnostic” [2]. Although Tolleson establishes the importance of Voltaire’s thought for Stephen, he very often ignores the “other influences,” including Mansel and the Kantian tradition.

39. This will no doubt strike some readers as a rather bold assertion in light of the fact that Huxley often referred to Hume as an agnostic forefather and contributed a piece of hagiography to Morley’s English Men of Letters series entitled Hume, not Kant. In addition to this, Hume emerges as the hero of Stephen’s English Thought [See Bicknell, “Leslie Stephen’s ‘English Thought in the Eighteenth Century,’” 120.] But a careful reading of Huxley’s Hume will reveal not only Huxley’s high regard for Kant but his tendency to supplement Hume’s shortcomings in epistemology with Kantian notions. See Huxley, Hume, 65, 85. In a discussion on the problem of innate ideas, Huxley resolves the issue by bringing in Kant’s “doctrine of the existence of elements of consciousness, which are neither sense-experiences nor any modifications of them.” [Huxley, Hume, 85.] Huxley’s interest in Kant’s notion of the structure of the mind, an approach that Hume did not take despite his emphasis on the limits of knowledge, explains Huxley’s desire to use Kant as a fruitful response to difficulties in Humean epistemology. It is striking to find a similar handling of Hume by Stephen. After discussing the impossibility of building a consistent philosophy of natural science on Hume’s principles, Stephen turns to Kant (and Spencer) as necessary avenues of escape from the destructiveness of Hume’s scepticism. [Stephen, HETEC 1:48-56.]


41. T. H. Huxley, Lay Sermons, Addresses, and Reviews, 150. As late as 1903 Flint had to remind his contemporaries that “a very common misconception as to agnosticism is that it is identical with positivism.” [Flint, Agnosticism, 52.]

42. W. M. Simon, European Positivism in the Nineteenth Century, 4.

43. Huxley, MR, 156, 158. Huxley attacked Positivism many times after his articles of the late 1860s. See Huxley, SCT, 211; Leonard Huxley, ed., LLTHH 2:244. Huxley was particularly outraged by the authoritarian strain in Positivist thought, which not only led to Comte’s belief that science should be regulated by the state, but also seemed to Huxley to spill over into Comte’s idea for a new religion. Huxley branded the religion of humanity as “spiritual tyranny and slavish social ‘organization.’” [T. H. Huxley, “An Apologetic Irenicon,” 559.] For more on Huxley’s rejection of Comte see Sydney Eisen, “Huxley and the Positivists,” 337-58.

44. ICST-HP 23:12. [Morley to Huxley, 13 Jan. 1869.]

45. ICST-HP 8:69.

46. For a defense of a strong epistemological connection between Comte and the agnostics see Baumer, Religion and the Rise of Scepticism, 145-46.

47. Huxley, Hume, 50.

49. ICST-HP 8:80; Huxley, MR, 155.
51. Many scholars still consider Huxley, Tyndall, and Clifford to be materialists. See Reardon, From Coleridge to Gore, 297; Maurice Mandelbaum, History, Man, and Reason, 23; Henry C. Sheldon, Unbelief in the Nineteenth Century, 60. For a rejection of the view of Huxley and Tyndall as materialists see Charles S. Blinderman, "T. H. Huxley," 50-62; idem, "John Tyndall and the Victorian New Philosophy," 288.
52. Dr. Louis Büchner, Force and Matter, 2, 29; Huxley, EE, 131; Frederick Gregory, Scientific Materialism in Nineteenth-Century Germany, 146-48; Huxley, MR, 162; Huxley, EE, 132.
54. Gregory distinguishes between the German scientific materialists and what he calls a group of reductionists [such as Helmholtz, Ludwig, and Du Bois-Reymond]. The latter group resembled the English agnostics in retaining materialism only as a maxim of scientific research. (See Gregory, Scientific Materialism in Nineteenth Century Germany, 149.) For example, Emil Du Bois-Reymond, the Berlin physiologist, held that the concepts of matter and force were only abstractions from natural phenomena which yielded no final explanation. Some problems, Du Bois-Reymond argues in his "The Limitation of Natural Knowledge" (1872), are forever beyond human knowledge.
55. Engels, Socialism Utopian and Scientific, 15; Lenin, Materialism and Empirio-criticism, 114.
56. Stephen, HETEC 1:34. Stephen repeated his point in a later work. "Englishmen were practically, if not avowedly, predisposed to empiricism." Leslie Stephen, English Utilitarians 3:77. Other scholars have said that empiricism is England's national school by virtue of its status as the prevailing outlook of English society, especially in the nineteenth century. See Susan Budd, Varieties of Unbelief, 270; John Herman Randall, Jr., Career of Philosophy 1:583; Dr. Rudolf Metz, A Hundred Years of British Philosophy, 47; Benn, History of English Rationalism 1:203. The conditions of life in the Victorian period, Houghton has asserted, could only have heightened the characteristic empiricist quality of English thought. See Walter Houghton, Victorian Frame of Mind, 1830-1870, 110-11.
61. Stephen, HETEC 1:311. Years later, in 1903, Stephen was less harsh on Mill and described his religious influence as "latent," for although Mill had
never publicly stated his beliefs, his philosophy implicitly led to agnosticism. See Leslie Stephen, Some Early Impressions, 76.


63. A.O.J. Cockshut’s book The Unbelievers really does not distinguish between the unbelief of the men of the forties and fifties and the agnosticism of a later period. Defining agnostics loosely as those who rejected orthodox Christianity, but who were not totally antireligious like the atheists and secularists, allows Cockshut to include studies of Clough, J. S. Mill, Matthew Arnold, George Eliot, Samuel Butler, Huxley, and Spencer. Froude is dealt with as an agnostic, and Clifford is treated as a dogmatic atheist (p. 67). Cockshut chooses to dwell on how the thinkers’ personal tempers and characters influenced their religious thought. There is virtually no discussion of the agnostic notion of the limits of knowledge. The Unbelievers is a disappointing work, especially since it is one of the few major secondary sources specifically on agnosticism.


66. A list of scientific naturalists includes Positivists (e.g., Harrison) and other unbelievers who were not specifically agnostics (Lewes, Tylor, Lubbock, Lankester, Maudsley, Allen). See Hock Guan Tjoa, George Henry Lewes, 102; [Leslie Stephen], “George Henry Lewes [1817–1878],” The Dictionary of National Biography, ed. Sir Leslie Stephen and Sir Sidney Lee (Oxford: Oxford University Press, 1917), 11:1044–45 [Stephen labels Lewes a Positivist]; Edward Clodd, Grant Allen: A Memoir, 192 [Clodd quotes Allen’s denial that he is an agnostic].

67. Robert M. Young, “Historiographic and Ideological Contexts of the Nineteenth-Century Debate on Man’s Place in Nature,” in Young, Darwin’s Metaphor, 240. Leon Jacyna’s dissertation, already cited, and the work of Frank Turner, also follow up the social history of ideas approach. Older studies have noticed the affiliation of agnosticism with the Victorian middle class. Benn asserted that “agnosticism, its meaning once grasped or even dimly suspected, seemed well suited to the generally businesslike and sensible character of the English middle-class.” (Benn, History of English Rationalism 1:203.) Noel Annan has included agnostics such as Darwin, Huxley, and Stephen in his study of the rise of a middle-class intellectual aristocracy in mid-nineteenth-century England. See Noel Gilroy Annan, “Intellectual Aristocracy,” 243–87. But the recent work by Turner, Young, and Jacyna is more sophisticated in its treatment of the social context of unbelief.
68. I am indebted to James Moore for this insight.

69. In a comparison of scientific naturalism in mid-Victorian England and French scepticism in the late eighteenth century, Jacyna finds the novelties of the former to be tied to the special features of nineteenth-century British society. (Leon Jacyna, "Scientific Naturalism in Victorian Britain," 11.) However, I would argue that there were unique intellectual as well as social factors in scientific naturalism. It is important to avoid two dangers here. First, we must not reduce the intellectual content of agnosticism, as if we were vulgar Marxists, to the social context. Although the agnostics were molded by the socio-economic and political structure, they were individuals who acted upon and transformed that structure, in part through the way they shaped the future course of unbelief. Second, the notion of intellectual influence presents similar difficulties. By pointing to the impact of Mansel on agnosticism I do not mean to put forward a crude notion of influence wherein the agnostics have no active role. They were intelligent, independent men who, although impressed by the Kantian tradition, reformulated it into a distinctive new philosophical position.

70. Recently, James Turner has argued that American agnosticism arose due to the increasing willingness of liberal Christian leaders to adapt their religious beliefs to modernity. American Christianity became so rationalized that it decayed from within. However, my approach is quite different in that I trace the origins of English agnosticism to an affinity with orthodox Christian thinkers like Mansel who stressed the transcendence of God. See James Turner, Without God, Without Creed.

71. A number of authors have pointed to science in general (and not to Darwin specifically), as a crucial factor in the birth of agnosticism. Huxley and agnosticism are discussed under the chapter heading "The Scientific Movement," in Waddington, Development of British Thought, 124. In a bibliographical essay entitled, "The Unbelievers," Bicknell asserts that Benn's History of English Rationalism and Robertson's History of Freethought in the Nineteenth Century are among the many books that emphasize the notion that unbelief arose from developments in science. See Bicknell, "Unbelievers," 474, 484. Bury discusses the triumph of rationalism in the context of the advance of science. See Bury, History of Freedom of Thought, 226. As Wolff remarks, "it has become a truism that science—along with 'higher criticism' of the Bible—made doubters out of believers," but he later rejects the statement. See Robert Lee Wolff, Gains and Losses, 419. See also Baumer, Religion and the Rise of Scepticism, 93, 144.

The problematic nature of Darwinian theory for Christian theology has led scholars to treat evolution as one of the chief factors in the unsettlement of faith. Passmore affirms that there was a "natural alliance" between "Darwin and agnosticism" for "by destroying the argument from design Darwin did not disprove God's existence, but cut away the only argument in its favour which had any appeal to those who accepted the positivist doctrine that all knowledge derives from the observation of natural processes." (Passmore, "Darwin's Impact on British Metaphysics," 46.) Historical studies discuss the birth of agnosticism under headings and within a context which can only
imply that a strong connection exists between evolutionary theory and all who subscribed to Huxley's position; the studies are in chapters with titles such as "The Evolutionary-Naturalist School," "Reactions to Darwin," "Evolution and Philosophy," "The Theory of Evolution," "Herbert Spencer and the Philosophy of Evolution," and "The Theory of Evolution." See Metz, A Hundred Years of British Philosophy, 111; Roland N. Stromberg, Intellectual History of Modern Europe, 312; Sir William Cecil Dampier, A History of Science and Its Relations with Philosophy and Religion, 318; D. C. Somervell, English Thought in the Nineteenth Century, 132; Sorley, History of British Philosophy to 1900, 274; Reardon, From Coleridge to Gore, 296. See also Richard D. Altick, Victorian People and Ideas, 230; Basil Willey, Christianity Past and Present, 109.

Alongside the destructive impact of science and evolutionary theory, scholars have placed the findings of biblical criticism as an important factor in the growth of nineteenth-century English unbelief. See Wolff, Gains and Losses, 2; Bury, History of Freedom of Thought, 226; Bicknell, "Unbelievers," 474, 484; Willey, Christianity Past and Present, 109; Budd, Varieties of Unbelief, 104.

A third factor that has been stressed by scholars in their interpretation of the birth of agnosticism concerns the ethical revolt against Christian orthodoxy. See Howard R. Murphy, "Ethical Revolt Against Christian Orthodoxy in Early Victorian England," 801; Wolff, Gains and Losses, 2; Charles Coulston Gillispie, Edge of Objectivity, 349; Chadwick, Secularization of the European Mind, 155; Tolleson, Relation Between Leslie Stephen's Agnosticism and Voltaire's Deism, 54-55.

Chapter Two
Mansel and the Kantian Tradition

Epigraph from Mansel, LRT, xli.


2. John William Burgon, "Henry Longueville Mansel," 149. Besides this chapter on Mansel in the second volume of Lives of Twelve Good Men, the other important biographical source is the Dictionary of National Biography entry on Mansel by Leslie Stephen. Although the religious backgrounds of Mansel's biographers were quite different, both had important insights to offer on the significance of Mansel's work. John William Burgon [1813–1888] was dean of Chichester and a High Churchman of the old school. Scorned for his extreme reactionism, Burgon could sympathize with the trials Mansel endured as a result of his controversial method of defending the conservative position. But one could argue that Stephen made a more appropriate biographer in that he was better equipped than Burgon to understand the agnostic aspect of Mansel's work.


4. A small but respectable body of scholarly literature has grown up around Mansel. The major works are Don Cupitt, "Mansel and Maurice on Our
Knowledge of God," 301-11; Don Cupitt, "Mansel's Theory of Regulative Truth," 104-26; Don Cupitt, "What was Mansel Trying to Do?" 544-47; D. W. Dockrill, "Doctrine of Regulative Truth and Mansel's Intentions," 453-65; Kenneth D. Freeman, Role of Reason in Religion; Silvestro Marcucci, Henry L. Mansel; W. R. Matthews, Religious Philosophy of Dean Mansel; R. V. Sampson, "Limits of Religious Thought," 63-80; Hamish F. G. Swanston, "Henry Longueville Mansel," in Ideas of Order, 53-73. Mansel also finds his way into most studies of F. D. Maurice due to the controversy between the two men concerning Mansel's Limits of Religious Thought from 1859 to 1860. There is still a tendency for scholars to view Mansel mainly as an antagonist to Maurice, who is considered to be a much greater figure.

5. Mansel published a series of books in the fifties, including Prolegomena Logica (1851), an edition of Aldrich's Artis Logicae Rudimenta (1852), Psychology the Test of Moral and Metaphysical Philosophy (1855), A Lecture on the Philosophy of Kant (1856) as well as The Limits of Religious Thought (1858). Mansel's Metaphysics (1860) was originally written as an entry for the Encyclopaedia Britannica.


8. Rev. J. J. Lias et al., "Is It Possible to Know God?" 98, 132.


11. Hamilton's essay "On the Philosophy of the Unconditioned," which appeared as a review of M. Cousin's Course of Philosophy in volume 50 of the Edinburgh Review in October of 1829, was particularly influential. Hamilton's main works can be found in two sources, his Discussions on Philosophy and Literature, Education and University Reform and Lectures on Metaphysics and Logic.


13. John Skelton, Table-Talk of Shirley, 41.


16. Reardon asserts that "any direct influence Kantian philosophy might have had on English theology, apart from Coleridge, was not extensive." (Reardon, From Coleridge to Gore, 12.) Merz confirms that Kant was virtually ignored by English intellectuals but sees Hamilton as the chief link between Kant and England. According to Merz, Mansel's Bampton Lectures "renewed attention to the philosophy of Kant which had so far affected English thought mainly in the interpretation of Sir William Hamilton." (Merz, History of European Thought in the Nineteenth Century 4:215.) Shaw, Welleck, and Hoaglund all argue that, with the exception of Coleridge, Hamilton, and Mansel, no major English thinker dealt with Kant seriously from 1800 up to the 1860s. (Shaw, Das Problem des Dinges; John Hoaglund, "Thing in Itself in English Interpretations of Kant," 1-14; René Welleck, Immanuel Kant in England, 1793-1838.) Carré points out that only a few slight commentaries on
Kant’s philosophy appeared in England by 1850, no translation of The Critique of Pure Reason was attempted before 1838, and a comprehensive investigation of Kant’s system was presented only after 1860. (Meyrick H. Carré, Phases of Thought in England, 359–60.)

17. Reardon, From Coleridge to Gore, 250.
19. Mansel, LPK, 5; Mansel, LRT, xliii–xlv; Mansel, PC, 66–68.
22. Popkin, High Road to Pyrrhonism, 76.
23. Kant, Prolegomena to Any Future Metaphysics, 42.
26. Mansel, PL, 296; Mansel, Letters, Lecturers, and Reviews, 193.
27. Mansel’s method of overcoming idealism was to posit the existence of a faculty of intuition which, unlike the senses, could inform us of the existence of objects other than our own nervous systems. The “locomotive” faculty, the means by which we consciously exert ourselves through an act of volition, informs “us immediately of the existence and properties of a material world exterior to our organism. This exterior world manifests itself in the form of something resisting our volition.” (See ibid., 88–89.) An object is presented as transcendentally real when it resists the effort of the locomotive faculty. But Mansel’s approach was really no solution to the problem. By remaining on the empirical plane, he was unable to get outside the world of his own mind. The locomotive faculty, despite its active nature, could still only yield sensations (it was, after all, only presentative), and Mansel had admitted that all sensation was only an affection of the nervous system. See also Freeman, Role of Reason in Religion, 24.
28. Mansel, Metaphysics, 221, 226; Mansel, PL, 97–98.
29. Hamilton, DPL, 16; Mansel, Metaphysics, 172.
31. Kant, Groundwork of the Metaphysic of Morals, 126.
32. Chadwick, Victorian Church, pt. 1, 556.
33. Popkin, History of Scepticism, xiv.
36. One book of sermons, Newman’s Fifteen Sermons Preached Before the University of Oxford [1843], dealt especially with the theme of faith’s relation to reason.
38. Mansel, Examination of the Rev. F. D. Maurice’s Strictures on the Bampton Lectures of 1858, 9.


41. Mansel, "On Miracles as Evidences of Christianity," _Aids to Faith_, 34.

42. Richard Yeo, "William Whewell, Natural Theology and the Philosophy of Science in Mid Nineteenth Century Britain," 513; Dean, "Through Science to Despair," in Paradis and Postlewait, eds., _Victorian Science and Victorian Values_, 124. Cupitt suggests that Mansel's contemporaries were hostile to his religious thought because of the popularity of the design argument. See Cupitt, "Mansel's Theory of Regulative Truth," 108. But Mansel believed that he had presented a form of natural theology based upon the idea of the mind as designed: "If it be thought no unworthy occupation for the Christian preacher to point out the evidences of God's Providence in the constitution of the sensible world and the mechanism of the human body; or to dwell on the analogies which may be traced between the scheme of revelation and the course of nature; it is but a part of the same argument to pursue the inquiry with regard to the structure and laws of the human mind. The path may be one which, of late years at least, has been less frequently trodden... and the lesson of the whole, if read aright, will be to teach us that in mind, no less than in body, we are fearfully and wonderfully made by Him whose praise both alike declare." (_LRT_, 21–22.) Yet it still holds that Mansel's natural theology of the mind was so designed to destroy Paley's natural theology of nature.

43. Mansel, _LRT_, 93. Kant also used the terms "regulative" and "speculative" in his _Critique of Pure Reason_. For Kant it was valid for the ideas of pure reason, including God, to be used regulatively by reason to posit a goal and thereby to provide unity for the understanding. Mansel opposed this notion because it gave reason a positive role. Mansel admitted that his use of the term "regulative truth" was "suggested by the language of Kant," but he insisted that he used it "in a different manner from that in which Kant employs it." (_Mansel, Second Letter to Professor Goldwin Smith_, 63.) Mansel recognized that in rejecting Kant's notion of reason he had transformed Kant's notion of the regulative use of the ideas of pure reason. "As I do not adopt Kant's distinction between the understanding and the reason," Mansel affirmed, "I could not adopt his distinction between the speculative and regulative use of the latter faculty. Accordingly, I have from the first applied the distinction to the understanding alone; an application which in effect becomes the direct reverse of Kant's." (Ibid.) Once again we have a case where common concepts and terminology seem to point to a basis of agreement between Kant and Mansel but actually conceal a profound disparity. Whereas Kant viewed the transcendental idea of God in the "Transcendental Dialectic" as a legitimate principle of interpretation of the natural world when used regulatively, Mansel believed that the regulative idea of God is a finite form under which we can think of an infinite God in order to guide our actions, but he believed it was totally empty for speculative purposes.

44. Mansel, _Metaphysics_, 344.
45. Kant, _Groundwork of the Metaphysic of Morals_, 76; Mansel, _LPK_, 31; Mansel, _Metaphysics_, 332.


Chapter Three
Herbert Spencer and the Worship of the Unknowable


1. [J. B. Mozley], “Mansel’s Bampton Lectures” (1859), 352–90; idem, “Mr. Mansel and Mr. Maurice” (1860), 283–312; Frederick Denison Maurice’s _What Is Revelation!_ (1859) and _Sequel to the Inquiry, What Is Revelation!_ (1860); Goldwin Smith’s _Rational Religion, and the Rationalistic Objections of the Bampton Lectures for 1858_ (1861); [James McCosh], “Intuitionism and the Limits of Religious Thought” (1859), 137–59; Herbert Spencer’s _First Principles of a New System of Philosophy_ (1862); and John Stuart Mill’s _Examination of Sir William Hamilton’s Philosophy_ (1865). For a fuller listing of contemporary books and articles and a discussion of the Mansel controversy see Bernard Lightman, _Henry Longueville Mansel and the Genesis of Victorian Agnosticism_ (1979), 160–228, 476–80.


3. James Martineau, _Essays, Reviews, and Addresses_, 196.


12. Mansel, _Gnostic Heresies of the First and Second Centuries_, 274.


27. [John Frederick William Herschel], "Whewell on Inductive Sciences," 181.


40. Wiltshire, Social and Political Thought of Herbert Spencer, 59. Spencer planned to send his subscribers four quarterly installments, eighty to ninety pages each, until the series was complete. As it turned out, the total number of subscribers reached 440, but when the cost of printing and binding was taken into account this left Spencer with only £120 a year. Luckily for Spencer, two hundred more transatlantic subscriptions were brought in by Edward Youmans.
42. Hart, Synthetic Epistemology of Herbert Spencer, 106.
46. Sheldon, Unbelief in the Nineteenth Century, 114.
47. Cockshut, Unbelievers, 81.
49. "Coryphaeus of Agnosticism," 470; Flint, Agnosticism, 574.
52. Moore, "Herbert Spencer's Henchmen," 12; John Fiske, Excursions of an Evolutionist, 296, 301.
54. Webb, My Apprenticeship, 27.

Chapter Four
Disillusionment with and Attack on Orthodoxy

Epigraph from Stephen, FP, 116.
3. Although Stephen can be credited with helping to popularize the term, Maitland, Benn, and Tolleson overestimate his contribution. Stephen was rarely mentioned by his contemporaries or other agnostics as being of decisive significance for the development of agnosticism. Maitland, LLLS, 281-82;


12. RI-TP, Tyndall Correspondence, 1784. (R.I. MSS T., 21/E6, 9.)


15. ICST-HP 27:53. (Stephen to Huxley, 17 Jan., 1879.)


18. Leonard Huxley, ed., *LTHH* 1:10-11; Bruce Gordon Murphy, Thomas Huxley and His New Reformation, 17.


20. Julian Huxley, ed., *T. H. Huxley's Diary of the Voyage of H.M.S. Rattlesnake*, 278. Inscribed by Huxley on the inside of the corner of the notebook containing the diary of his *Rattlesnake* adventures is the following quote: "Thätige Skepsis" "An Active Scepticism is that which unceasingly strives to overcome itself and by well directed Research to attain to a kind of Conditional Certainty."


25. Queenwood was an innovative school that had connections with the
Quakers and socialist Robert Owen. It offered courses in natural science, surveying, and agriculture.

26. RJ-TP, Journals of John Tyndall, 196, 216, 220.
27. Cambridge, Cambridge University Library, Maitland Papers, Add 7008 F. W. Maitland Correspondence 1905–8, Caroline E. Stephen to Maitland, 8 Jan. 1905, 7008.305.
29. Stephen's daughter, Virginia Woolf, wrote in 1940 that her father "shed his Christianity—with such anguish, Fred Maitland once hinted to me, that he thought of suicide." [Virginia Woolf, Moments of Being, 108.] Maitland learned of Stephen's suicidal frame of mind from Sedley Taylor (1834–1920), author of books on science and music, who was at Trinity when Stephen was agonizing over his religious beliefs. In 1904 Taylor wrote a long letter to Maitland for use in the biography of Stephen. Taylor claimed that Fawcett had told him that late one night, when Fawcett had been discussing with Stephen whether or not he should resign his position as a clergyman due to his doubts, Stephen's state of mind was such that Fawcett seriously feared he might cut his throat during the night. (Cambridge, Cambridge University Library, Maitland Papers, Add 7007 F. W. Maitland Correspondence 1903–4, Add 7007.296.) Taylor went on to say that such a revelation might be too private for publication, and Maitland must have agreed, for no trace of the letter is to be found in The Life and Letters of Leslie Stephen. Instead, Maitland quoted the section from Stephen's Some Early Impressions [70] on the case with which Stephen sloughed off the old creed, and he placed it beside a passage from a letter from an unnamed correspondent who remembered the "mental torture" Stephen experienced. (Maitland, LLLS, 145–47.) However sceptical we may be about Taylor's story, since the original source was the overly dramatic Fawcett, it must be concluded that Stephen suffered far more than he was willing to let on throughout his crisis of faith. See Jeffrey Paul von Arx, Progress and Pessimism, 11, 212–13.
33. Ibid., 934.
34. Although I have elsewhere referred to Mill as an agnostic, strictly speaking this is incorrect. See Bernard Lightman, "Henry Longueville Mansel and the Origins of Agnosticism," 45–64.


41. Shipley, "Forty Years of a Scientific Friendship," 253; Eve and Creasey, *LWJT*, 89.

42. London, University of London Library, Herbert Spencer Papers, MS. 791/321.

43. RI-TP, Correspondence Between Thomas Archer Hirst and John Tyndall, 622. [R.I. MSS T., 31/E7, 374.]


47. Besides using the notion of the limits of knowledge or the idea of antinomies, Stephen also buttressed his attack on aggressive theologians by offering parallel points on the restriction of reason to its proper place couched in slightly different language. He stated that some metaphysical enquiries "lie beyond the legitimate sphere of reason" [Stephen, *HETEC* 1:20], that the doctrine of the Trinity is composed of "a number of obscure statements about matters altogether above our understanding" (Stephen, *FP*, 30), and that the assumptions of theology land us in "inextricable labyrinths of dialectics" [Stephen, *AA*, 77].


50. RI-TP, Journals of John Tyndall, 414, 418.

51. Ibid., Correspondence Between Thomas Archer Hirst and John Tyndall, 22. [R.I. MSS T., 31/B4, 16.]

52. Ibid., Journals of John Tyndall, 466. In the Tyndall Papers there is a long set of notes on Kant which demonstrates Tyndall's familiarity with Kant's work. Included are a breakdown and summary of the first two critiques. Since the date of these notes is unknown it is impossible to tell if they were made in 1849 or later. See RI-TP, Sundry Manuscripts of John Tyndall, "John Tyndall. Poetry, Carlyle Etc., Philosophy Etc., Politics," Critical and Moral Philosophy of Kant. [R.I. MSS T., 3/E11, 96.]

54. RI-TP, Correspondence Between Thomas Archer Hirst and John Tyndall, 414. [R.I. MSS T. 31/D3, 189.]; John Tyndall, “Professor Huxley’s Doctrine,” 188.
59. ICST-HP 8:92. (Tyndall to Huxley, 24 Dec., [1871].)
60. Stephen, FP, 153–54. Stephen disliked all attempts to liberalize Christianity, since he saw liberalism and Christianity as opposites. [See Willey, “Honest Doubt,” 126.] Much of his polemic against Christianity depended on this prior assumption as to what is truly Christian. Since there were really only two positions that could be held consistently, the agnostics saw Catholicism as their main adversary. Liberal Christianity, they felt, would inevitably work its way around to their position. See Moore, Post-Darwinian Controversies, 63–65; John Tyndall, “Note,” in Andrew Dickson White, Warfare of Science, iv; Huxley, SE, 120; Clifford, LE 2:231.

Chapter Five
Religion, Theology, and the Church Agnostic

Epigraph from John Morley, On Compromise, 153.
2. Engels, Socialism Utopian and Scientific, 13; Lenin, Materialism and Empirio-criticism, 347.
5. Jacyna draws on both in his “Scientific Naturalism in Victorian Britain,” and Moore, although underlining Young’s views in his rejection of the military metaphor in Post-Darwinian Controversies (13), has also employed Turner’s perspective. [James R. Moore, “Charles Darwin Lies in Westminster Abbey,” 97–113.] Even Turner has pointed to the continuity between scientific naturalism and natural supernaturalism [Frank Turner, “Victorian Scientific Naturalism and Thomas Carlyle,” 325–43] and Young has discussed the changes wrought by the fragmentation of the common intellectual context provided by natural theology. [Robert Young, “Natural Theology, Victorian Periodicals and the Fragmentation of a Common Context,” in Young, Darwin’s Metaphor, 126–63.]
11. Schurman, Agnosticism and Religion, 11; Skelton, Table-Talk of Shirley, 294; Bibby, T. H. Huxley, 45; Barry, "Professor Huxley's Creed," 165; Baumer, Religion and the Rise of Scepticism, 174. See also Edward Clodd, Thomas Henry Huxley, 142.
12. [Richard Holt Hutton], "Pope Huxley," 136. The debate did not concern religious issues but rather Huxley's ethnological lecture on Basques, Celts, and Saxons. Hutton drew the parallel between the dogmatism of theologians and the dogmatism of Huxley's ethnological doctrines because he saw agnosticism as applicable to all realms of intellectual endeavor.
15. Ward, Problems and Persons, 258. According to Ward, Huxley was highly pleased with an article on him in the Quarterly Review for 1895 because it emphasized "that side of Huxley's teaching which was consistent with the Theistic view of life—a side so often ignored by his critics." Ibid., 252. See also Barry, "Professor Huxley's Creed," 160-88.
20. London, University College London Library, MS Add. 136. (Clifford to Mrs. Pollock, 28 Dec. 1869.)
22. RI-TP, Journals of John Tyndall, 33; Ibid., Tyndall Correspondence, 402. (R.I. MSS T., 10/C3, 1.)
26. RI-TP, Correspondence Between Thomas Archer Hirst and John Tyndall, 24. (R.I. MSS T., 31/B5, 17.)
27. Ibid., Tyndall Correspondence, 2375. (R.I. MSS T., 23/D7, 40.) Tyndall also compared the persecution of freethinkers and agnostics to the oppression of the early Christians, who were known as atheists because they did not worship the Roman gods. See Tyndall, NP, 5.

41. RI-TP, Correspondence Between Thomas Archer Hirst and John Tyndall, 16. [R.I. MSS T., 31/B4, 12.]; ibid., Typescript Bound Journals of T. A. Hirst, 301; ibid., Correspondence Between Thomas Archer Hirst and John Tyndall, 13. [R.I. MSS T., 31/B4, 11.]
42. Ibid., Typescript Bound Journals of T. A. Hirst, 805; Ibid., Journals of John Tyndall, 1030.
44. Ibid., Tyndall Correspondence, 407. [R.I. MSS T., 10/C3, 2.]; Journals of John Tyndall, 218.
47. T. H. Huxley, “Science and ‘Church Policy,’” 821. I am indebted to Ruth Barton for pointing out the existence of this little-known Huxley article. Huxley acknowledged the piece as his in an unpublished letter to F. Dyster. See ICST-HP 15:129.
48. RI-TP, Tyndall Correspondence, 403. [R.I. MSS T., 10/C3, 1.]; ibid., 406. [R.I. MSS T., 10/C3, 2.]; ibid., Journals of John Tyndall, 484.
50. RI-TP, Journals of John Tyndall, 709, 761.
52. Moore, *Post-Darwinian Controversies*, 68.
53. Tyndall, “Professor Huxley’s Doctrine,” 188.
54. Tyndall, NF, 395; Tyndall, FS 2:52, 288, 391.
58. L. Huxley, ed., LLTHH 1:258, 260; Cockshut, Unbelievers, 91–92. See also Duncan, ed., LLHS, 101, for Spencer’s reaction to Huxley’s initial approval of “The Unknowable” chapter.
59. ICST-HP 25:181. (Huxley to George Rolleston, Jan. 1866.)
63. Peterson, Huxley, 315–16. In the “Prologue” (1892) to Science and the Christian Tradition, Huxley cast aspersions on Spencer’s whole synthetic philosophy. Comparing Spencer’s “Philosophy of Evolution” to Descartes’s attempt “to get at a theory of the universe by the same a priori road,” Huxley judged any such system to be “premature.” Huxley, SCT, 41.
64. Clodd, Thomas Henry Huxley, 220.
65. Clodd does not give the exact dates of Huxley’s letters but merely states that they were written in 1889. (See Ibid.) However, Gould’s letter of inquiry to Huxley is dated 23 December 1889, and his reply to Huxley’s letter is dated 2 January 1890. (See ICST-HP 17:106, 108.)
69. “Coryphaeus of Agnosticism,” 457–70; Harrison, “Future of Agnosticism,” 146. Dalgairns chooses Spencer’s ideas over Huxley’s as an aid to expand the agnostic position more fully. (Dalgairns, “Is God Unknowable?,” 617.) During one of the meetings of the Victoria Institute in 1884 a discussion arose on agnosticism in which a member stated that “there are no books now published which are doing more mischief to the cause of religion than the books of Mr. H. Spencer.” (Lias et al., “Is It Possible to Know God?,” 122.) See also Flint, Agnosticism, 569; John Morley, Recollections 1:110. Scholars of the twentieth century are not agreed on the importance of Spencer. Garvie sees Spencer “as the most influential of the exponents of Agnosticism,” and Benn calls him the “chief of the school.” (Garvie, “Agnosticism,” 1:218; Benn, History of English Rationalism 2:204.) But Smith and Webb see Huxley
as the true agnostic because of his rejection of the Unknowable, and they therefore dismiss Spencer’s claim to leadership of the movement. (Smith, “Agnosticism,” 9; Webb, Study of Religious Thought, 83.)

70. Clifford and Tyndall were rarely discussed in the literature of the day as agnostics. This was no doubt because they never claimed in their published work to be agnostics. Stephen’s “An Agnostic’s Apology” was rarely mentioned either by other agnostics or orthodox Christians, and he was viewed as a minor member of the agnostic school. Benn stated that the success of agnosticism as a party badge was owing to Stephen and that from the publication of “An Agnostics Apology” dates the “world-wide celebrity of the name agnostic.” (Benn, History of English Rationalism 2:383–84.) Similarly, Tolleson has credited Stephen with popularizing the term and keeping it from being pejorative. (Tolleson, Relation Between Leslie Stephen’s Agnosticism and Voltaire’s Deism, 59.) However, both Benn and Tolleson exaggerate Stephen’s role, as there is no evidence to support their arguments.

71. RI-TP, Correspondence Between Thomas Archer Hirst and John Tyndall, 742. (R.I. MSS T., 31/F10, 546.); Ibid., Tyndall Correspondence. (R.I. MSS T., 11/F2, 254.); Ibid., Typescript Bound Journals of T. A. Hirst, 2607.

72. Ibid., Typescript Bound Journals of T. A. Hirst, 2578.

73. As published in the Fortnightly Review in 1876, the essay began differently from the revised version that appeared in An Agnostic’s Apology and Other Essays in 1893. Only in the later piece does Stephen attribute the term agnosticism to Huxley.


75. F. J. Gould, Stepping-Stones to Agnosticism, 88, 91. Other works by Gould which are important for an understanding of his agnosticism are The Agnostic Island (1891), The Life Story of a Humanist (1923), and his numerous contributions to the Agnostic Annual in 1890, 1894, 1896, 1898, 1899, and 1902.


77. Richard Bithell, Creed of a Modern Agnostic. 18. Among his other important works are The Worship of the Unknowable, Agnostic Problems (1887), and Handbook of Scientific Agnosticism (1892).


79. Laing’s chief works were Modern Science and Modern Thought (1885), A Modern Zoroastrian (1887), Problems of the Future, and Other Essays (1889), and Human Origins (1892).
Chapter Six
The New Natural Theology and the Holy Trinity of Agnosticism

Epigraph from Ward, Naturalism and Agnosticism, xii.
2. Stephen was quite aware of Carlyle’s pervasive influence. “One proof of Carlyle’s extraordinary power,” Stephen wrote, “was the influence which he exercised upon men who differed from him diametrically upon speculative doctrines. Nobody, for example, represented the very antithesis to his doctrines more distinctly than J. S. Mill. And many, I believe, of Mill’s disciples would be found to owe even more to the stimulus received from their dogmatic opponent than to the direct teaching of their more congenial master.” Leslie Stephen, “Thomas Carlyle,” 352–53. See also Turner, “Victorian Scientific Naturalism and Thomas Carlyle,” 325–43.
4. T. H. Huxley, “Nature,” 11. Twenty-five years later Huxley reaffirmed his position. See T. H. Huxley, “Past and Present,” 1–3. Huxley’s views on nature are often interpreted as shifting sometime during the sixties or seventies and culminating in his lectures on evolution and ethics, where he stresses the amoral quality of the evolutionary process. See Paradis, T. H. Huxley, 3; Oma Stanley, “T. H. Huxley’s Treatment of ‘Nature,’” 120. But Huxley’s attitude toward nature had always been ambivalent, paralleling his contradictory notions of theism.
8. Tyndall, FS 2:241; Huxley, MR, 165; RI-TP, Tyndall Correspondence, 2933. (R.I. MSS T., 14/C3, 41.)
9. RI-TP, Journals of John Tyndall, 500.
13. David Robertson, “Mid-Victorians amongst the Alps,” 120; Maitland, LLS, 83.
14. Frederic Harrison, “Sir Leslie Stephen,” 439. Besides being a play-
ground, the Alps were, for Stephen, a "cathedral" and a "sanctuary" according to Maitland. [LLLS, 79.]

15. Maitland, LLLS, 296; Stephen, Playground of Europe, 212.
18. Ibid., 213.
19. Robertson, "Mid-Victorians amongst the Alps," 123. Stephen's satirical account of an ascent of the Rothorn indicates the kind of ridicule with which Tyndall had to contend. Here is Stephen's response to a question from an imaginary scientific enthusiast:

'And what philosophical observations did you make?' will be the inquiry of one of those fanatics who, by a reasoning process to me utterly inscrutable, have somehow irrevocably associated alpine travelling with science. To them I answer that the temperature was approximately [I had no thermometer] 212° [Fahrenheit] below freezing-point. As for ozone, if any existed in the atmosphere, it was a greater fool than I take it for. [Stephen, Playground of Europe, 39.]

23. John Tyndall, Hours of Exercise in the Alps, 186; idem, Glaciers of the Alps, 239.
25. Tyndall, Glaciers of the Alps, 240; RI-TP, Journals of John Tyndall, 1237. [18 August 1861.]

26. Huxley, MR, 60. The "conception of the constancy of the order of Nature," Huxley claimed in 1876, "has become the dominant idea of modern thought." [T. H. Huxley, Lectures and Essays, 12.] In "Science and Culture" [1880] Huxley treated the search for order as nothing less than the main activity of human beings. [Huxley, SE, 150.] Huxley practiced what he preached. His scientific work was concerned, especially at the beginning of his career, with problems of form and structural plan in morphology. Huxley was searching for a "rational and natural system" in invertebrate zoology. [Julian Huxley, ed., T. H. Huxley's Diary, 40, 42.] Paradis has made Huxley's idea of order the distinguishing feature of this thought, even more basic than his agnosticism. [Paradis, T. H. Huxley, 112.] According to Paradis Huxley needed some element of stability to balance his vision of flux and universal motion, otherwise the world would be dissolved into a blur of elemental activity. [Ibid., 75.]

27. Young, Darwin's Metaphor, 240.
30. Tyndall was also not particularly enamored of the Bridgewater Treatises. In 1854 he was asked to edit Prout's treatise, and upon reading it, he pronounced the book to be lacking in both scientific depth and religious inspiration. "Certainly if no better Deity than this can be purchased for the eight thousand pounds of the Earl of Bridgewater," Tyndall wrote, "it is a dear bargain." (Eve and Creasey, LWJT, 56.)

31. R.I-TP, Journals of John Tyndall, 413; Ibid., Correspondence Between Thomas Archer Hirst and John Tyndall, 93, 104. (R.I. MSS T., 31/B7, 32; 31/B7, 35.)

32. Tyndall, FS 2:65; Tyndall, NF, 12, 346.

33. Huxley, "On Natural History, as Knowledge, Discipline, and Power," in Foster and Lankester, eds., Scientific Memoirs of Thomas Henry Huxley 1:307. In order to illustrate that nature exhibits design similar to the human intellect, Huxley drew upon an analogy that he picked up mountaineering with Tyndall. In The Glaciers of the Alps Tyndall recounted an expedition of 1856 to the Bernese Alps in southern Switzerland which he made with Huxley:

Once on turning a corner an exclamation of surprise burst simultaneously from my companion and myself. Before each of us and against the wall of fog, stood a spectral image of a man, of colossal dimensions; dark as a whole, but bounded by a colored outline. We stretched forth our arms; the spectre did the same. We raised our alpenstocks; the spectres also flourished their batons. All our actions were imitated by these fringed and gigantic shades. We had, in fact, the Spirit of the Brocken before us in perfection. [22]

The Brocken Spectre is a term used by mountaineers to describe the phenomenon in which the shadows of the climbers, greatly magnified, are projected on the mists about the summit of the mountain opposite. (Anthony Huxley, ed., Standard Encyclopedia of the World's Mountains [London: Weidenfeld and Nicolson, Educational, Ltd., 1962], 165.) The name for this unusual optical illusion is taken from the Brocken peak in the Harz Mountains in Germany either because this is where the spectre may have been first seen, or, more likely, because of the supernatural legends associated with the Brocken. When Goethe whisked Faust to the summit of the Brocken for the revels of Walpurgis Night, the mountain had already acquired its connection with German legends of witchcraft and evil. [Ibid., 165; Peter Crew, Encyclopaedic Dictionary of Mountaineering [London: Constable, 1968], 31.] Huxley was obviously impressed by the spectacular image that appeared in the mist, and treated the vision as divine-like. Note that Tyndall's description underscored the fact that the spectre was merely a reflection of human movements. Tyndall encountered the Spectre of the Brocken a second time in 1890. (See Tyndall, NF, 330.)


35. T. H. Huxley, Darwiniana, 20, 223.


Huxley's reservations about natural selection stemmed from his demand for proof in the form of the production of mutually infertile breeds [the true mark of distinct species] from a single stock by means of artificial selection. If artificial selection could not produce what Darwin claimed for natural selection, then Huxley saw no reason to tie the fortunes of a naturalistic theory of evolution to one unverified hypothesis. Huxley maintained that Darwinism should be accepted only as a "working hypothesis" and that scientists should "see what could be made of it." (Thomas Henry Huxley, "On the Reception of the 'Origin of Species,'" 551.) However, Huxley himself made little use of natural selection theory in his own work to solve biological problems. Certainly, there is no evidence of a radical change in Huxley's scientific studies after 1859, and Ghiselin has concluded that he "remained a pre-Darwinian anatomist as long as he lived." (Michael T. Ghiselin, "Individual in the Darwinian Revolution," 125.) Huxley favored supplementing natural selection with saltations or mutations. (Leonard Huxley, ed., *LTHH* 1:189; Huxley, *Lay Sermons, Addresses, and Reviews*, 297.) It could only have shocked Darwin that Huxley was arguing for per saltum evolution, for it allowed thinkers such as Mivart to smuggle in miraculous creation through the back door. Darwin continually declared himself in favor of a theory of evolution which was continuous and nonsaltative.

38. Tyndall agreed with Huxley, even as late as 1870, that natural selection was a hypothesis to be proved or disproved in the future. See Tyndall, *FS* 2:133. Clifford, however, accepted natural selection without any reservations. He referred to the process of evolution as "long, cumbrous, and wasteful." See Clifford, *LE* 1:213.


43. Ibid. 1:207.


49. This is one of the main themes of Turner's *Between Science and Religion*. Two fine articles on Balfour have appeared recently: John David Root, "Philosophical and Religious Thought of Arthur James Balfour," 120–41; L. S. Jacyna, "Science and Social Order in the Thought of A. J. Balfour," 11–34. Jacyna is especially sharp on examining how Balfour's epistemological criti-
cism was motivated by a desire to defend the conservative social implications he drew from science and to reject the more radical ones deduced by scientific naturalism. For a more detailed discussion of the agnostic attack on a priori knowledge, and of their inability to justify their holy trinity, see Bernard Lightman, *Henry Longueville Mansel and the Genesis of Victorian Agnosticism*, 371–434.


75. Tyndall, *FS* 2:108. Tyndall argued that many scientists were inconsistent, for the wave theory of light, which was generally accepted as an adequate or comprehensive explanation of the facts, implied the existence of atoms. (Ibid. 2:109.) Some of Tyndall’s scientific research was aimed at demonstrating the significance of atomic theory, particularly his work on radiant heat.


81. RI-TP, Tyndall Correspondence, 3022. (R.I. MSS T., 14/C7, 70.) The same letter is also located at ICST-HP 8:155.

82. Spencer, "Late Professor Tyndall," 404.


85. RI-TP, Journals of John Tyndall, 1328.

86. According to Irvine, Huxley was present during this festive occasion, and he heard Neaves’s song, although his letters and essays contain no mention of the event. See Irvine, *Apes, Angels, and Victorians*, 242-43.


94. Clifford, LE 1:294; 2:74, 84-87, 143. Clifford also justified the belief in an external world in the same way that he argued for the uniformity of nature—by saying that those who make use of it survive the struggle for existence. See Ibid. 2:74; Smoker, Scientific Concepts and Philosophical Theory, 49.

95. James Ward, Naturalism and Agnosticism, 381.

Conclusion: The Tragedy of Agnosticism

Epigraph from George Orwell, The Collected Essays, Journalism, and Letters of George Orwell: My Country Right or Left, 1940-1942 2:15-16.


3. RITP, Journal 1889, 93.

4. Murphy suggests that the very frequency of Huxley’s articles “would seem to indicate not that Huxley had arrived at a secure position, but that he was, to some degree, growing more uncertain.” (Murphy, Thomas Huxley and His New Reformation, 222.)

5. Wiltshire, Social and Political Thought of Herbert Spencer, 100.

6. Webb, My Apprenticeship, 90. Lauwers attributes the cause of Spencer’s deepening pessimism to his consciousness that the second law of thermodynamics meant that the universe was running down toward death and uniformity. This may have shaken Spencer’s faith in science. See Lauwers, “Herbert Spencer and the Scientific Movement,” 191.

7. Peel, Herbert Spencer, 31.

8. Wiltshire points to the surge of xenophobia, jingoism, and colonial expansion which overwhelmed Spencer’s stress on peace and progress and to the challenge to Spencer’s individualistic liberalism from the new liberalism of T. H. Green, which contained neo-Hegelian elements. See Wiltshire, Social and Political Thought of Herbert Spencer, 100.


12. Woolf, Moments of Being, 41. Stephen was, according to Virginia, impossible to live with. He became a “tyrant”—at times pathetically vulnerable and self-pitying but at other moments violent and exacting. “It was,” she remembered, “like being shut up in the same cage with a wild beast.” Ibid., 116.


14. Comments in a speech delivered in 1892 already reveal this feeling. [Stephen, Social Rights and Duties 1:38.] The death of his wife no doubt heightened Stephen’s sense of isolation.

15. Woolf, Moments of Being, 147.
22. Christine Fleming Heffner, "Incense and Salt," 15; Alan Montefiore, "Aspects of Agnosticism and Ecumenicalism," 27. The tendency of some unbelievers to put agnosticism to this use was commented upon at the turn of the century. In 1905 Armstrong asserted that Huxley detested intellectual laziness, but 'his own coined and patented appellation, 'Agnostic,' was worn as a badge by myriads who had never done a hard hour's thinking in their lives, but used it for a cover for sheer intellectual laziness and contented letting alone of the most stimulating and urgent questions that can occupy the mind of man.' (Armstrong, Agnosticism and Theism in the Nineteenth Century, 78.)
23. Maurice, What is Revelation, 331.
25. Demant has perceptively remarked on the paradoxical quality of the whole agnostic conception of our relation to nature. The agnostics said that science was helping us to subdue natural forces to human will, but they also affirmed that we are a product of nature and subject to natural law. There was always an unresolved tension between the determinism of those forces and their attempt to control nature in order to liberate humanity. (Canon V. A. Demant, "Man and Nature," Ideas and Beliefs of the Victorians, 236.) The same contradiction appears in agnostic efforts to construct a science of ethics.