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# Pope Huxley and the Church Agnostic: The Religion of Science\*

## BERNARD LIGHTMAN

The Bampton Lectures had bored the English public ever since their institution in 1780 as a forum for the most traditional sort of Christian apologetics. However in 1858 the lecturer's eloquence, wit and brilliant powers of analysis attracted to the Oxford University Church the largest congregation since the days of John Henry Newman. He was Henry Longueville Mansel (1820-1871), a Tory, a High Church Anglican, at that time Reader in Moral and Metaphysical Philosophy at Magdalen College, and his lectures on *The Limits of Religious Thought* were a sensation. The *Times* reported that "Sunday after Sunday during the whole series, in spite of the natural craving for variety, and some almost tropical weather, there flocked to St. Mary's a large and continually increasing crowd of hearers, to listen to discourses on the Absolute and the Infinite, which they confessedly could not comprehend."

Although the topic of the lectures was esoteric and philosophically complex, most of Mansel's hearers must have grasped just enough of his meaning to know that his ingenious arguments were radically new and considered to be powerful ammunition for the war on unbelief. Mansel told his audience that the findings of German biblical criticism, French positivism and English geological science were unacceptable if they came into conflict with the Holy Scriptures. In defending the doctrine of biblical infallibility he did not differ from his predecessors who had undertaken the Bampton lectureship; it was how he argued for his position which struck his listeners as novel and exciting. For Mansel seemed to defend the most ancient form of orthodoxy through the use of the most modern weapons drawn from the theologically suspect philosophy of Immanuel Kant. Since man is a finite being with a conditioned consciousness, Mansel argued, his capacity for knowledge has definite limits. Both God and the transcendental world are beyond these limits and thus are unknowable. Therefore man is in no position to criticize the Bible as it represents a communication from an inscrutable being, God. The infallibility of the Bible in all matters cannot be questioned.

In view of Mansel's unimpeachable Christian piety it does not seem possible that an unbeliever like Thomas Henry Huxley (1825-1895), professor at the Royal School

<sup>\*</sup> The author would like to express his gratitude to the Social Sciences and Humanities Research Council of Canada for providing him the time in which to research and write this article while on one of their Postdoctoral Fellowships. I also wish to thank the Royal Institution of Great Britain and the Imperial College of Science and Technology for permitting me to quote from the Tyndall and Huxley papers.

<sup>1.</sup> Two editions appeared almost immediately in 1858, two more in 1859, and a fifth was published in 1867.

<sup>2. &</sup>quot;Mansel's Bampton Lectures", The Times, 10 January 1859, p. 10.

of Mines, would enthusiastically recommend the Bampton Lectures to his friends. Yet the famous geologist Charles Lyell relates in a letter of 1859 the following description of Huxley's rather high opinion of Mansel's *The Limits of Religious Thought*:

A friend of mine, Huxley, who will soon take rank as one of the first naturalists we have ever produced, begged me to read these sermons as first rate, "although, regarding the author as a Churchman, you will probably compare him, as I did, to the drunken fellow in Hogarth's Contested Election, who is sawing through the signpost of the other party's public house, forgetting that he is sitting at the outer end of it. But read them as a piece of clear and unanswerable reasoning."

The picture referred to by Huxley is part of a series of four paintings by William Hogarth (1697-1764) entitled An Election: Four Pictures. The second painting in the series, Canvassing for Votes, was completed in 1757. In front of a quaint village inn we see smiling politicians asking for and buying votes. However behind this tranquil scene is an image of brutal violence, for in the distance a throng of men is trying to tear down a building whose owner is defending it by firing upon the unruly mob. Above the seething crowd of men in the background, perched atop a signpost, is a figure sawing down the sign of the party he opposes. However the man has probably had a bit too much to drink as he seems to be entirely unaware that if he succeeds in his task he too will fall! Hogarth is pointing out that a vicious war between political factions is ultimately self-defeating, for in cutting down one's opponent one destroys the English political system and hence one's own party.

Huxley took what was a tiny detail from Hogarth's painting in order to articulate his reaction to Mansel's Bampton Lectures. Originally set within a political context by Hogarth, the metaphor of mistakenly causing one's own downfall in sawing through the enemy's signpost is placed by Huxley within a theological context. The parties vying for power were no longer Whigs and Tories, but believers and unbelievers, Christians and scientific naturalists. In Huxley's hands the motley mob in the distance now becomes orthodox Christian theologians led by Mansel, the fellow up on the signpost. Mansel was drunk, in Huxley's opinion, for by attempting to cut down unbelievers using a saw fashioned from Kantian metal Mansel had unwittingly destroyed the foundations of Christian theology.

But Huxley's reaction to the Bampton Lectures indicates that Mansel not only worked against himself by undermining his own position, he also supplied unbelievers with arguments which enabled them to construct a new form of religious scepticism later labelled by Huxley, during one of the earliest Metaphysical Society meetings in 1869, as agnosticism. Mansel's reasoning was so "clear and unanswerable" that it became the essence of the agnostic viewpoint. The familiar agnostic claim that

<sup>3.</sup> Mrs. Charles Lyell, ed., Life, Letters and Journals of Sir Charles Lyell (London, 1881), II, pp. 321-2. The reality of Lyell's story is confirmed by Huxley's letter to Kingsley in 1860. "When Mansel took up Hamilton's argument on the side of orthodoxy(!)," Huxley wrote, "I said he reminded me of nothing so much as the man who is sawing off the sign on which he is sitting, in Hogarth's picture." Leonard Huxley, ed., Life and Letters of Thomas H. Huxley (New York, 1900), I, p. 234.

knowledge was limited to the phenomenal world was based on Mansel's examination of the structure of the mind and his conclusion that the very nature of thought precluded penetration into the transcendental. In part one of First Principles (1862), titled "The Unknowable", Herbert Spencer (1820-1903) not only modelled his strategy on Mansel's position, but also lifted pages of quotes from the Bampton Lectures to demonstrate the unknowableness of God. Both Huxley and Leslie Stephen (1832-1904) followed Spencer in adapting Mansel's approach to their own ends. They referred many times to the limits of reason and affirmed that man cannot think of transcendental matters, including God, without falling into hopeless contradiction. <sup>4</sup> As strange as it may seem, agnosticism owed a great debt to an eminent High Church Anglican and Huxley was perversely fond of pointing out the similarity between Mansel's position and his own. In an article of 1895, Huxley remembered that when he came across The Limits of Religious Thought, "I said to myself 'Connu!'; and the thrill of pleasure with which I discovered that, in the matter of Agnosticism (not yet so christened), I was as orthodox as a dignitary of the Church, who might any day be made a bishop."5

Huxley's paradoxical attitude toward Mansel epitomizes the larger relationship between agnosticism and Christianity. On the one hand Huxley, speaking for chief agnostics Spencer and Stephen, as well as John Tyndall (1820-93), and William Kingdon Clifford (1845-79),<sup>6</sup> saw agnosticism as fighting to the death with what he called ecclesiasticism or "the championship of a foregone conclusion as to the truth of a particular form of Theology". Clifford in particular distinguished himself in his scintillating attacks on ecclesiasticism. He earned the nickname "the delicious enfant terrible" from William James through such impudent disregard for orthodox Christianity as was displayed in the humourous song "Poor Blind Worm". One verse

Leslie Stephen, "Mr. Maurice's Theology", Fortnightly Review, XV (1874), p. 617; idem, An Agnostic's Apology and Other Essays (1893; reprint ed. Westmead, England, 1969), pp. 19 and 78; idem, History of English Thought in the Eighteenth Century (London, 1876), I, pp. 119 and 315; idem, The Science of Ethics (London, 1882), p. 2; T.H. Huxley, Science and Christian Tradition (New York, n.d.), pp. 236-7.

<sup>5.</sup> T.H. Huxley, "Mr. Balfour's Attack on Agnosticism", Nineteenth Century, XXXVII (1895), p. 534.

<sup>6.</sup> Spencer, the great "synthetic philosopher", put forward a full blown program of agnosticism in 1860 and later accepted the term coined by Huxley as an accurate designation for his religious position. Tyndall and Clifford were scientists, the former being appointed professor of natural philosophy at the Royal Institution in 1853 and the latter by virtue of his professorship in applied mathematics at University College, London, from 1871 until his death eight years later. Stephen is known for his work as a philosopher, critic and biographer (he edited the Dictionary of National Biography).

<sup>7.</sup> T.H.Huxley, Science and Christian Tradition, p. 312.

crooned by Clifford delighted the fellows of Cambridge University who had gathered for a dinner party in 1870:

If you and God should disagree On questions of theologee, You're damned to all eternitee, Poor blind worm!8

To this aspect of agnostic thought belongs the commitment to scientific naturalism so carefully analysed by Turner.9 With other scientific naturalists of the second half of the nineteenth century the agnostics put forward new interpretations of man, nature and society derived from the theories, methods and categories of empirical science. This cluster of ideas and attitudes was naturalistic in the sense that it would permit no recourse to causes not present in empirically observed nature and it was scientific since nature was interpreted according to three major mid-century scientific theories, the atomic theory of matter, the conservation of energy and evolution. This standpoint amounted to a claim to intellectual independence from traditional Christian modes of thought, for scientific naturalists argued for an empirically based Weltanschauung which need not take into account the Bible (as interpreted by the orthodox), the doctrines of the Anglican Church or the opinions of the clergy. Behind the fight for autonomy of thought lay the desire on the part of the new professional middle class, to which the scientific naturalists belonged, to provide a rationale for their leaders to wrest cultural and social prestige from the English clergy. Huxley, as a scientific naturalist and sworn enemy of ecclesiasticism, relished the spectacle of Mansel's precarious position up on that signpost.

On the other hand, what had put Mansel "out on a limb", represented only one element of Christian thought which the agnostics retained in their views on religion, ethics and science. It is at this point that we can bring to bear Young's perceptive analysis of the line of continuity running from early nineteenth century natural theology to the scientific naturalism of the latter half of the century. Young has argued

<sup>8.</sup> William James, Essays in Pragmatism (New York, 1948), p. 92; Moncure Daniel Conway, Autobiography (1904; reprint, New York, 1970), II, p. 354.

<sup>9.</sup> Frank Turner, Between Science and Religion (New Haven, 1974), chapter 2; idem, "Rainfall, Plagues, and the Prince of Wales: A Chapter in the Conflict of Religion and Science", Journal of British Studies, XIII (May 1974), pp. 46-65; idem, "The Victorian Conflict Between Science and Religion: A Professional Dimension", Isis, LXIX (1978), pp. 356-76; idem, "Victorian Scientific Naturalism and Thomas Carlyle", Victorian Studies, XVIII (1975), pp. 325-43. Scientific naturalism was a broader movement of thought than agnosticism. Many scientific naturalists were not agnostics, for example Frederic Harrison and Grant Allen, but all agnostics were scientific naturalists.

that the scientific naturalists and Christian theologians were merely fighting over the 'best ways of rationalizing the same set of assumptions about the existing order'.' <sup>10</sup>

The significance of the fact that the majority of the original agnostics were born and raised within evangelical households has not escaped the attention of scholars. Although the agnostics experienced a moral revulsion to a number of Christian doctrines most readily identified with evangelicalism they still retained the evangelical fervour for sincerity, truth, earnestness and upright conduct. Leslie Stephen, whose grandfather was a member of the Clapham Sect, inherited a puritanical streak from his evangelical upbringing. His daughter, Virginia Woolf, described Stephen as "spartan, ascetic, puritanical". '1 Scholars and contemporaries have also been quick to perceive the missionary spirit of agnostics in their attempt to spread the good news of modern science. "The Agnostics," Annan has remarked, "in a sense, were a new Nonconformist sect." '12 One author has dubbed Spencer, Darwin, Tyndall and Huxley as the "four Evangelists" of agnosticism. Huxley has been referred to as the "great apostle of the modern gospel of science", "the John Knox of Agnosticism", "prelate", "priest", and "prophet of science", whose lay sermons presented a "Creed of Science for its Thirty-nine Articles". In the heat of controversy Huxley

<sup>10.</sup> Robert Young, "The Historiographic and Ideological Contexts of the Nineteenth-Century Debate on Man's Place in Nature", Changing Perspectives in the History of Science, ed. Mikulas Teich and Robert Young (London, 1973), p. 376. The interpretive approaches of Young and Turner need not be viewed as irreconcilable, and it is possible for the historian to apply insights derived from both in order to enrich his understanding of what was a complex social, political and intellectual process. Young discusses the continuity of ideologies based on natural theology and scientific naturalism but he does treat them as representative of two social orders and intellectual frameworks. Turner's interest in the sociology of change leads him to focus on how English society moved from one order to the next. Jacyna draws on both perspectives in his "Scientific Naturalism in Victorian Britain" (Ph.D. thesis, University of Edinburgh, 1980), and Moore, although underlining in his The Post-Darwinian Controversies Young's view in his rejection of the military metaphor as a valid image to describe the relation between science and religion in Victorian England, has also employed Turner's analysis. See James R. Moore, "Charles Darwin Lies in Westminster Abbey", Biological Journal of the Linnean Society, XVII (1982), pp. 97-113. Even Turner has pointed to the continuity between scientific naturalism and natural supernaturalism in his "Victorian Scientific Naturalism and Thomas Carlyle", Victorian Studies, XVIII (1975), pp. 325-43, and Young has discussed the changes wrought by the fragmentation of the common intellectual context provided by natural theology in his "Natural Theology, Victorian Periodicals and the Fragmentation of a Common Context", Darwin to Einstein, ed. Colin Chant & John Fauvel (Burnt Mill U.K., 1980), pp. 69-107.

<sup>11.</sup> Virginia Woolf, Moments of Being, ed. Jeanne Schulkind (Sussex, 1976), p. 68.

<sup>12.</sup> Noel Annan, "The Strands of Unbelief", *Ideas and Beliefs of the Victorians*, Harman Grisewood et al. eds. (New York, 1966), p. 155.

 <sup>[</sup>William Barry], "Professor Huxley's Creed", Quarterly Review, CLXXX (January 1895), p. 160.

Jacob Gould Schurman, Agnosticism and Religion (New York, 1896), p. 11; John Skelton, The Table-Talk of Shirley (Edinburgh, 1895), p. 294; Cyril Bibby, T.H. Huxley (New York, 1960), p. 45; [William Barry], "Professor Huxley's Creed", p. 165; Franklin L. Baumer, Religion and the Rise of Scepticism (New York, 1960), p. 174.

tended to preach his message dogmatically, a fact which led Richard Holt Hutton (1826-97) to playfully name him "Pope Huxley". Huxley, Hutton maintained, responded to criticism "in the tone of a Papal bull, — containing violent censures . . . as well as dogmatic decrees". <sup>15</sup>

But attributing to the agnostics characteristics which resemble the Christianity they attacked is often done tongue-in-cheek by scholars. There is no serious intent to imply that the agnostics preserved any substantial religious element drawn from Christianity. Christian ethics were retained but in a secularized form and religious language was used by agnostics merely for the dramatic effect it had on the audience. It is far more common to find scholars viewing agnosticism as essentially irreligious, atheistical and hostile towards all forms of Christianity. This is taking a cue from Henry Wace, Huxley's contemporary and a conservative Anglican, who charged that the adoption of the term agnostic was only a disguise for atheism, for the agnostic's "real name is an older one — he is an Infidel, that is to say, an unbeliever". 16 Whereas the Victorian Christian attacked the agnostics for going too far from an acceptable orthodox position, the Marxists, who saw in the agnostics inconsistent atheists, criticized Huxley and his ilk for not going far enough. Lenin charged that Huxley's "agnosticism serves as a fig-leaf for materialism". 17 John Fiske, an American caught up in the enthusiasm for evolutionary thought in the latter part of the century, tickled the assembled guests for tea at Huxley's one day in 1874 with a story about Huxley's reputation for heterodoxy among his fellow countrymen. Fiske had run across an Englishman in New York who was surprised at the great interest the Americans took in the work of Huxley and other scientific naturalists. The Englishman exclaimed, "What, 'Uxley! 'orrid old hinfidel! Why, we don't think hanything of 'im in Hingland; we think 'e's 'orrid. You don't say you hadmire 'Uxley? 'E's perfectly 'orrid!''18

However agnosticism was not anti-Christian; neither was it irreligious, nor was it atheistic. It was true that the agnostics believed that ecclesiasticism had established its base of operations in Victorian Christianity and there could be no peace with this foe.

<sup>15. [</sup>R.H. Hutton], "Pope Huxley", Spectator, XLIII (29 January 1870), p. 136. Richard Holt Hutton was editor of the Spectator, a Broad Churchman and member of the Metaphysical Society. As the self-appointed chronicler of the agnostic movement he supplied the readers of the Spectator with a steady stream of articles on Huxley and was the first to publish Huxley's coinages "agnostic" and "agnosticism". See Robert H. Tener, "R.H. Hutton and 'Agnostic", Notes and Queries, XI (November 1964), pp. 429-31 and Robert H. Tener, "Agnostic", Times Literary Supplement, 10 August 1967, p. 732.

<sup>16.</sup> Henry Wace, Christianity and Agnosticism (Edinburgh, 1895), p. 6.

<sup>17.</sup> V.I. Lenin, Materialism and Empirio-criticism (Moscow, 1970), p. 195. Agnosticism is usually viewed as either a disguised form of atheism or some middle ground between theism and atheism. Theistic agnosticism, in both cases, is considered as an impossibility. In his article on "Agnosticism" in The Dictionary of the History of Ideas, Nielsen denies that one can be a Jew or a Christian and be an agnostic and asserts that "theistic agnosticism" is a contradiction". See Kai Nielsen, "Agnosticism", Dictionary of the History of Ideas, ed. Philip P. Wiener (New York, 1968), I, p. 17.

<sup>18.</sup> Ethel F. Fiske, ed., The Letters of John Fiske (New York, 1940), p. 300.

But the objection was to the Christianity of the day. "The Church founded by Jesus," Huxley declared in a letter of 1889, "has not made its way; has not permeated the world but did become extinct in the country of its birth." Victorian Christianity was a perversion of the original creed taught by Christ in the New Testament.

The solution was to bring about what Huxley called a "new reformation" and recover what had been lost.20 Huxley and Tyndall were quite fond of drawing a comparison between the rise of agnosticism and the beginnings of Protestantism. They saw themselves as continuing the process of theological purification and moral improvement initiated by Luther.21 Taking advantage of some free time while he studied at Marburg in Germany for his degree in science, Tyndall in 1849 went on "a pilgrimage to the scenes of Luther's life''. 22 Many years later, when Tyndall was at the height of his career and about to deliver his notorious "Belfast Address" (1874) as the incoming president of the British Association for the Advancement of Science, he drew a parallel between the opposition he anticipated from bigoted Christians and that which Luther encountered from dogmatic Catholics. "I will go to Belfast as Luther did to Worms if necessary," Tyndall wrote, "and meet if requisite all the Devils in Hell there."<sup>23</sup> The new reformation could involve the founding of new, pure institutions to replace the corrupt churches of the day. Huxley was quite serious in 1871 when he talked of the possibility of "the existence of an Established Church which should be a blessing to the community. A Church in which, week by week, services should be devoted, not to the iteration of abstract propositions in theology, but to the setting before men's minds of an ideal of true, just, and pure living."24

But the founding of a new religion entailed certain risks, the primary one being the possibility that too much of the old order would return through the back door. For Huxley, religion was an inward state which involved both reverence for an ethical ideal and some form of theology. It was the role of the latter in the agnostic religion which led to important divisions between the leading agnostics. Huxley was always concerned with the human tendency to transform fluid and living inner religious experience into rigid statements about objective reality. As the years rolled by, he

Leonard Huxley, ed., Life and Letters of Thomas Henry Huxley (New York, 1900), II, p. 243.

<sup>20.</sup> Bruce Gordon Murphy, "Thomas Huxley and His New Reformation" (Ph.D. thesis, Northern Illinois University, 1973), p. 8.

<sup>21.</sup> Anthony Cockshut, The Unbelievers (New York, 1966), p. 151.

<sup>22.</sup> Royal Institution of Great Britain (hereafter RIGB), John Tyndall Papers, Correspondence between Thomas Archer Hirst and John Tyndall, p. 24, Tyndall to Hirst, 11 June 1849.

<sup>23.</sup> Ibid., Tyndall Correspondence, p. 2375, Tyndall to H. Debus, undated. In 1847, while on his Rattlesnake voyage, Huxley discussed his religious doubts and difficulties as if they were, like Luther's position on the sins of Catholicism, the result of honest and sincere reflection. "'Ich kann nicht anders! Gott hilfe mir!' Morals and religion are one wild whirl to me — of them the less said the better." Julian Huxley, ed., T.H. Huxley's Diary of the Voyage of the H.M.S. Rattlesnake (Garden City, N.Y., 1936), p. 26.

<sup>24.</sup> T.H. Huxley, *Method and Results* (London, 1904), pp. 283-4. Years later in 1893 Hooker was still impressed with Huxley's conception of a National Church. See Leonard Huxley, *Life and Letters of Sir Joseph Dalton Hooker* (London, 1918), II, p. 67.

became more and more uneasy. In his *First Principles* Spencer asserted that one could legitimately affirm the existence of some transcendental being, which he called the Unknowable, even though this being could never become an object of knowledge. Huxley was at first willing to talk of the Unknowable in his essays.<sup>25</sup> Later he came to believe that Spencer had succumbed to idolatry in his worship of "negative abstractions".<sup>26</sup> In order to distinguish his position from Spencer's he not only stopped using the Spencerian term for God, the Unknowable, by the late sixties, but he also coined the term agnostic in 1869.<sup>27</sup> However this strategy backfired when Spencer commandeered the term for his own use. Huxley's frustration mounted as he moved closer to Leslie Stephen's brand of agnosticism, which neither affirmed nor denied the existence of God, while the majority of agnostics gravitated towards Spencer's interpretation of agnosticism as a worship of the Unknowable.

The pope of agnosticism actually was Spencer, whose "Unknowable" was looked upon by other agnostics as a handbook to a new religion. Huxley admitted in 1889 that, if a sect of Agnostics existed, "I am not its acknowledged prophet or pope", in effect giving up the honourary title of pope which Hutton had earlier bestowed. Among Spencer's disciples were Samuel Laing, Richard Bithell and Frederick James Gould, men who attempted to popularize science and agnosticism by putting forward the agnostic position in a systematic and comprehensive fashion. Huxley took Laing to task in "Agnosticism" (1889) for drawing up a series of eight articles for the "Church of No Belief", one of which affirmed the existence of an "inscrutable First Cause". His criticisms were equally applicable to Bithell, who proclaimed that "we not only can worship the Unknowable, but that it is the only

<sup>25.</sup> Huxley had referred to the "altar of the Unknown" in one of his essays in 1866. See T.H. Huxley, Method and Results, p. 38.

<sup>26.</sup> Edward Clodd, Thomas Henry Huxley (Edinburgh, 1902), p. 221.

<sup>27.</sup> In 1889 Huxley wrote that he did not "care to speak of anything as 'unknowable'" and confessed in 1893 that "long ago, I once or twice made this mistake, even to the waste of a capital 'U'." See T.H. Huxley, Science and Christian Tradition, p. 311.

<sup>28.</sup> Spencer's advantage was in having a comprehensive statement published in 1860, while Huxley's major articles focusing on agnosticism came rather late in the development of the new creed. Although he coined the term in 1869 it was twenty years later than he publicly aired his views in a series of essays on agnosticism. These articles were in part an attempt to prevent agnosticism from degenerating any further into a new ecclesiasticism.

<sup>29.</sup> T.H. Huxley, Science and Christian Tradition, p. 210.

<sup>30.</sup> Samuel Laing, "The Agnostic's Creed", Pall Mall Gazette, 29 December 1888, p. 13; T.H. Huxley, Science and Christian Tradition, p. 209. A barrister, an official of the Board of Trade, three times a member of parliament for the Liberals (1852, 1868, 1873), and a successful chairman of the London, Brighton, and South Coast Railway, Samuel Laing (1812-97) became an author at age seventy and produced a series of books which garnered him an influence with the general public almost equal to that of the chief thinkers of the day. See J.M. Robertson, A History of Freethought in the Nineteenth Century (London, 1969), II, p. 422. His 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).

proper object of supreme worship'',<sup>31</sup> and Frederick James Gould, who made belief in a God a principle of agnosticism on the basis that Spencer's "doctrine of the Unknowable is assented to by so many professed Agnostics''.<sup>32</sup> Not only had Huxley lost his exalted post as pope of agnosticism; he realized that his position on the curtailment of theology could lead to the possibility of excommunication. Huxley fumed in a private letter of 1883 that "agnostics' are assuming the character of a recognized sect" and indicated his dissension from the movement by declaring that if there were called a "General Council of the Church Agnostic very likely I should be condemned as a heretic".<sup>33</sup>

It was Huxley's hope that science would eventually purge religion, as well as Spencerian agnosticism, of all false theology. "If the religion of the present differs from that of the past," Huxley avowed, "it is because the theology of the present has become more scientific than that of the past; because it has not only renounced idols of wood and idols of stone, but begins to see the necessity of breaking in pieces the idols built up of books and traditions and fine-spun ecclesiastical cobwebs." Huxley believed that it was crucial to distinguish between religion and theology. In an anonymous editorial in *The Reader* in 1864 titled "Science and 'Church Policy'" he claimed that "religion has her unshakeable throne in those deeps of man's nature which lie around and below the intellect, but not in it. But Theology is a simple branch of Science or it is nought." Theology, then, was distinct from religion, and since it operated in the world of intellect in embodying feelings in concrete facts it was potentially in conflict with science. 36

<sup>31.</sup> Richard Bithell, Agnostic Problems (London, 1887), p. 122. Bithell, B.Sc. and Ph.D., and a Fellow of the Institute of Bankers, became more involved with the secularists in the nineties. Among his important works are The Worship of the Unknowable, Agnostic Problems (1887), and A Handbook of Scientific Agnosticism (1892). In the last book Bithell claimed that he had consulted leading agnostics in order to state accurately the view of the majority. He asserted that "that Supreme Power — call it what you will — dwelling in the infinite unknown, in which many Agnostics believe, inspires a sense of wonder, awe, and reverence such as the gods of the pulpit — for they are many — could never command." Richard Bithell, A Handbook of Scientific Agnosticism (London, 1892), p. 61.

<sup>32.</sup> F.J. Gould, Stepping-Stones to Agnosticism (London, 1890), p. 91. Other works by Gould are The Agnostic Island (1891) and The Life-Story of a Humanist (1923). F.J. Gould (1855-1938) went through an agnostic phase in the late eighties and early nineties before becoming heavily involved in the Ethical Movement and organized secularism. See Who Was Who 1929-1940 (London, 1947), III, p. 536.

<sup>33.</sup> Imperial College of Science and Technology (hereafter ICST), Huxley Papers, vol. 28, pp. 196-7, Huxley to Charles Watts, 10 September 1883.

<sup>34.</sup> T.H. Huxley, Method and Results, p. 38.

<sup>35. [</sup>T.H. Huxley], "Science and 'Church Policy'", The Reader, IV (1864), p. 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, Huxley Papers, vol. 15, p. 129. For a similar view of the relation between science and religion from Huxley's later thought see Science and Hebrew Tradition (New York, 1898), p. 161.

<sup>36.</sup> Maurice Mandelbaum, History, Man, and Reason (Baltimore, 1977), p. 35.

By separating religion and theology Huxley could maintain the basic harmony between science and religion. They were only at war if religion was wrongly identified with theology. For Huxley religion belonged to the realm of feeling while science was part of the realm of intellect. Science and religion, if rightly conceived, could never come into conflict since each realm was distinct and without authority outside its proper sphere of interest. Huxley affirmed in 1859 that "true science and true religion are twin-sisters, and the separation of either from the other is sure to prove the death of both. Science prospers exactly in proportion as it is religious; and religion flourishes in exact proportion to the scientific depth and firmness of its basis."37 Those sections in Huxley's work which are often quoted to support the thesis that a state of war existed between science and religion in Victorian England are therefore only examples of Huxley's perception of the antagonism between science and false theology, or agnosticism and ecclesiasticism. Huxley's view of science and religion, as being in harmony, provides evidence for the inadequacy of the military metaphor as a valid image for characterising the debates over evolution in the later nineteenth century. The war was not between those who supported religion and those who defended science; rather two Weltanschauungs which shared much in common, each with their own notions of religion and science and their relationship, were vying for cultural supremacy. Although the majority of the other agnostics differed with Huxley on the content of a scientific theology, they did agree that science and religion were complements and not opposites. After all, the avowed purpose of Spencer's "Unknowable" was to bring about a reconciliation between science and religion.

Science not only would purify religion in its negative role as destroyer of false theology, but it would also supply a new theology. "The serious question," Huxley wrote, "is whether theological men of science, or theological special pleaders, are to have the confidence of the general public." Huxley argued that only a new religion centred on a theology generated by science would be acceptable. As early as 1859 he observed that "we are on the eve of a new Reformation and if I have a wish to live thirty years, it is that I may see the God of Science on the necks of her enemies. But the new religion will not be a worship of the intellect alone." Although the other agnostics could not always agree with Huxley on the sort of theology science could produce, they did offer parallel ideas of a religion of science. Stephen's discussion of the religion of the future in his essay, "The Religion of All Sensible Men", pointed to science as "the fixed fulcrum, an unassailable nucleus of definite belief, round which all other beliefs must crystallise". On Before Clifford died he sketched the contents of a

<sup>37. [</sup>T.H. Huxley], "Science and Religion", The Builder, XVIII (1859), p. 35.

<sup>38.</sup> T.H. Huxley, Science and Christian Tradition, p. 270.

<sup>39.</sup> ICST, Huxley Papers, vol. 15, p. 107, Huxley to Dyster, 30 January 1859. More than thirty years later, in 1894, Huxley scribbled an aphorism which put forward a similar thought. "The religion which will endure is such a daydream as may still be dreamed in the noon tide glare of science." Cyril Bibby, T.H. Huxley: Scientist, Humanist and Educator (New York, 1960), p. 48.

<sup>40.</sup> Leslie Stephen, An Agnostic's Apology and Other Essays p. 369.

book to be called *The Creed of Science*. <sup>41</sup> When Tyndall gave his last lecture at Queenwood in 1848 before going off to Marburg, he told his students that he wanted to study the physical sciences not only to know about natural things, but also to come closer to God. "What are sun, stars, science, chemistry, geology, mathematics," Tyndall believed, "but pages of a book whose author is God! I want to know the meaning of this book, to penetrate the spirit of this author and if I fail then are my scientific attainments apple rinds without a core." <sup>42</sup> For many of the agnostics science represented a way to draw near to the mysterious power behind the natural world.

The new natural theology of agnosticism emphasized the order and harmony of nature as a whole and viewed as vulgar the Paleyian stress on a grand mechanic who constantly intervened in the workings of nature to adapt each and every part of its environment. The deity of agnosticism was virtually synonymous with the laws of nature. All Nature was therefore looked upon with reverence and even awe. To Huxley the object of the physical inquirer 'is the discovery of the rational order which pervades the universe''. All In 1859 he hinted that science was a divinely sanctioned activity which confirmed the order in both the physical and mental world. 'The winning of every new law by reasoning from ascertained facts,'' Huxley declared, 'the verification by the event, of every scientific prediction, is, if this world be governed by providential order, the direct testimony of that Providence to the sufficiency of the faculties with which man is endowed, to unravel, so far as is necessary for his welfare, the mysteries by which he is surrounded. '15 For Huxley the theology of science was the ferreting out of God's will through the study of the laws by which He ruled nature.

When Clifford was wasting away in 1878 due to the consumption which would claim his life a year later, he could still summon the strength and wit to answer a newspaper report that he was converting back to Christianity. Flatly contradicting the story, he stated that his "M.D. had certified he was ill, but 'twas not mental

<sup>41.</sup> William Kingdon Clifford, *Lectures and Essays*, eds. Leslie Stephen and Frederick Pollock (London, 1879), I, p. 71.

<sup>42.</sup> RIGB, Tyndall Papers, Journals of John Tyndall, vol. 2, p. 383, 25 September 1848.

<sup>43.</sup> Young, "The Historiographical and Ideological Contexts", p. 428.

<sup>44.</sup> T.H. Huxley, Method and Results, p. 60.

<sup>45. [</sup>T.H. Huxley], "Science and Religion", p. 35.

<sup>46.</sup> Despite Huxley's attack on Spencer and other agnostics for going beyond a neutral position on the existence of God, he tended to approach nature with the sort of reverence reserved for a deity. The impersonal, but "great unknown underlying the phenomena of the universe" in a letter to Kingsley of 1863, is referred to in 1868 as "a strong angel who is playing for love" in the chessgame of life. See Leonard Huxley, Life and Letters of Thomas H. Huxley, I, p. 260; T.H. Huxley, Science and Education (New York, 1914), p. 82. The mysteriousness of nature, more appropriately captured in poetry such as aphorisms by Goethe, which Huxley translated for the readers of Nature in 1869, was reaffirmed by Huxley twenty-five years later. See T.H. Huxley, "Nature: Aphorisms by Goethe", Nature, I (November 1869-April 1870), pp. 9-11; idem, "Past and Present", Nature, LI (November 1894-April 1895), pp. 1-3.

derangement". <sup>47</sup> Due to sarcastic statements about Christianity such as the foregoing Clifford has been likened to an atheist by the majority of scholars. But even he talked of "cosmic emotion", or a sense of "awe, veneration, resignation, submission" felt "in regard to the universe or sum of things, viewed as a cosmos or order". <sup>48</sup> Clifford discussed in an approving tone the view of nature in *The Golden Verses* of the fifth century Neoplatonic philosopher Hierokles. Here indeed was a conception of nature which was fit for evoking a feeling of cosmic emotion, for *The Golden Verses* taught us "to look upon Nature as a divine Order or Cosmos, acting uniformly in all of its diverse parts; which order, by means of its uniformity, is continually educating us and teaching us to act rightly". <sup>49</sup> Other agnostics agreed with Huxley and Clifford and added a theology of science to their theology of the Unknowable.

For some agnostics the almost divine quality of nature touched them deepest when they were on the slopes of the Alps. In a review of Tyndall's *The Glaciers of the Alps* (1860), Huxley noticed that some supporters of science displayed a version of muscular Christianity in their romance with mountain climbing. "An ingenious speculator," Huxley affirmed, "indeed, might develope [sic] the parallel between the ecclesiastical and the scientific sects to a great length. The difficulties and obstacles which the Alps present to a scientific explorer are of a very similar order to those which a poaching village on the borders of the New Forest, or a parish in the Potteries, offer to a reforming rector." Huxley's observation could be applied to Leslie Stephen, who not only talked of how "the Oberland is to me a sacred place" and his desire "to worship there again", but also appreciated the challenge which mountain climbing offered as a test of character. 51

However it was Tyndall who, as Huxley put it, was the "mightiest evangel" of "that sect of muscular philosophers whose best-known church is the Alpine Club". <sup>52</sup> To Tyndall the Alps were a tonic to cure the ill-effects of London life. At a dinner party in 1869 he was overheard by the American Charles Eliot Norton (1827-1908) to exclaim in his Irish brogue, "Ah! the mountain tops, 'I is there that man fales himself nearest the devine. I always sakes the mountain tops for relafe from the tile and care of the wurrld." <sup>53</sup> Tyndall could not resist launching into a rhapsody on the splendor of nature when he was high upon Alpine peaks. The Jungfrau he described as

<sup>47.</sup> Walter White, The Journals of Walter White (London, 1898), p. 167.

<sup>48.</sup> William Kingdon Clifford, Lectures and Essays, II, p. 253.

<sup>49.</sup> Ibid., p. 267.

 <sup>[</sup>T.H. Huxley], "Reviews. The Glaciers of the Alps", Saturday Review, X (21 July 1860),
p. 81.

<sup>51.</sup> Frederic William Maitland, The Life and Letters of Leslie Stephen (London, 1906), p. 296; Phyllis Grosskurth, Leslie Stephen (Harlow, Essex, 1968), p. 17. Tolleson argues that "Stephen's religious emotions took the form of enjoyment of mountain grandeur and pessimistic, satiric literature." Floyd Clyde Tolleson, Jr., "The Relation Between Leslie Stephen's Agnosticism and Voltaire's Deism" (Ph.D. thesis, University of Washington, 1955), p. 249.

<sup>52. [</sup>T.H. Huxley], "Reviews. The Glaciers of the Alps", p. 81.

<sup>53.</sup> Sara Norton and M.A. DeWolfe Howe, eds., Letters of Charles Eliot Norton (Boston, 1913), I, p. 313.

"consecrated ground", and the summit of the Weisshorn drew from his lips an ode to "the transcendent glory of Nature" in which "I entirely forgot myself as man". <sup>54</sup> A sense of the order and oneness of nature, of which man too was a part, often overwhelmed Tyndall during his mountain-climbing expeditions. From the vantage point of the top of the Weisshorn Tyndall could see a number of mountains, the peaks of which were illuminated in such a way that "they seemed hung in heaven like a chain of opals; fit to form a necklace for their Almighty Maker". <sup>55</sup> In 1889 he was indignant upon discovering that a little church had been constructed near his retreat on Alp Lusgen. "They have built a little church here," Tyndall wrote, "and as I write the thin wiry sound of a bell which the young clericals, by the aid of the young ladies, have mounted on the church comes up to me. It is rather a desecration to mix this sound with the glucking of the cowbells." <sup>56</sup>

Although the agnostics were content to treat science as a religion since it was the study of divine natural law, they would have reacted in a hostile manner to the suggestion that the primary principles upon which science was based were mere articles of faith. We are now back to Mansel and the impact of his notion of the limits of knowledge on agnosticism. The philosophy of nescience became useful as ammunition in the agnostic attack on ecclesiasticism. However by severely limiting knowledge the agnostics inadvertantly created problems for themselves in their attempt to justify the validity of scientific principles. Some of these principles were in fact closely connected to the belief in a natural order which was the basis of the agnostic religion. The holy trinity of agnosticism consisted of the universality of the law of causation, the uniformity of nature, and the existence of an objective, external, natural world. In 1887 Huxley referred to them as "postulates" from which "all physical science starts", and admitted that they are "neither self-evident nor are they, strictly speaking, demonstrable".57 The sceptical element in the Victorian agnostics' thought made it difficult for them to acknowledge the reality and validity of all first principles whether they be religious, philosophical or even scientific.

In 1855 Spencer went to Folkestone to spend a few days with Tyndall, and was disturbed by his friend's question, "Do you believe in matter?" just as they were to part for the night. Spencer, who always feared undue cerebral stimulation, declared that "persistence in this kind of thing was out of the question, and I had to abridge my stay". Sh All of the agnostics were confronted by the problem of grappling with a scientific agnosticism which tended to dismiss both God and an external world as transcendent entities. Similarly, the notion of the uniformity of nature could not be shown to be universal, necessary, or true from the vantage point of the agnostic

<sup>54.</sup> John Tyndall, Hours of Exercise in the Alps (London, 1871), p. 186; idem, The Glaciers of the Alps and Mountaineering in 1861 (London, 1906), p. 239.

<sup>55.</sup> RIGB, Tyndall Papers, Journals of John Tyndall, p. 1237, 18 August 1861.

<sup>56.</sup> Ibid., Tyndall Correspondence, p. 2185, Tyndall to Juliet Pollock, September 1889.

<sup>57.</sup> T.H. Huxley, Method and Results, pp. 60-1.

<sup>58.</sup> Herbert Spencer, "The Late Professor Tyndall", New McClures Magazine (March 1894), p. 404.

position even though Huxley and Stephen both agreed that to deny its validity would virtually destroy natural science.<sup>59</sup> In 1866 Huxley remarked that since observation and experiment could confirm that nature operates in a uniform fashion, a belief in the natural order was justification "not by faith, but by verification".<sup>60</sup> However, in later life, Huxley was willing to stake the validity of important scientific axioms on faith. "The one act of faith in the convert to science," Huxley wrote, "is the confession of the universality of order and of the law of causation. This confession is an act of faith, because by the nature of the case, the truth of such propositions is not susceptible of proof."<sup>61</sup>

Huxley's use of the metaphor drawn from Hogarth's painting is actually doubly ironic. As far as Huxley is concerned it is ironic to come across a Christian theologian who, in holding to the notion of the limits of knowledge, is self-destructive and supplies unbelievers with powerful arguments. However a second irony is concealed in Huxley and the agnostics' adoption of Mansel's way of conceiving of the limits of knowledge. A philosophical justification of the axioms upon which science must be based could not be undertaken if the agnostics restricted knowledge to the same degree as Mansel had indicated. Andrew S. Pringle-Pattison (1856-1931), the Scottish philosopher, once compared the argument of Mansel's Bampton Lectures to "edged tools" whose inventor might escape evil, but "the next to handle them will surely cut their fingers". 62 Scepticism in general has been found to be a dangerous weapon, for it can often backfire. The variety of scepticism embraced by Mansel and Huxley was particularly potent, and they both "cut their fingers" on the blade of the saw they used to bring down their enemies. It is in the spirit of Hogarth's satiric art that we can visualize a drunken Huxley sitting right next to an equally inebriated Mansel on that signpost, watching Mansel fall and then sawing off his own section of wood. For whereas Huxley was correct that Mansel undermined orthodox Christianity, it is equally evident that Huxley undercut the certainty of science. Although the agnostics themselves saw in their work a profound religious dimension, the religion of science shared more in common with Christianity than they would have liked to admit.

T.H. Huxley, Science and Christian Tradition, p. 70; The Bodleian Library, Oxford, Metaphysical Society Papers, Leslie Stephen, "Belief and Evidence", 12 June 1877, p. 4.

<sup>60.</sup> T.H. Huxley, Method and Results, p. 41.

<sup>61.</sup> T.H. Huxley, "On the Reception of the 'Origin of Species'", The Life and Letters of Charles Darwin, ed. Francis Darwin (New York, 1887), I, p. 553. Clifford and Stephen were not happy with Huxley's resort to faith here but their justification of scientific axioms tended to rely on pragmatic arguments which in no way supported the universal and necessary status they granted to the notion of cause or the uniformity of nature. D.W. Dockrill, "The Origin and Development of Nineteenth Century English Agnosticism", Historical Journal (University of Newcastle, New South Wales), 1 (1971), p. 24; Bernard Lightman, "Henry Longueville Mansel and the Genesis of Victorian Agnosticism" (Ph.D. thesis, Brandeis University, 1979), pp. 393-434.

<sup>62.</sup> Andrew Seth, Scottish Philosophy (Edinburgh, 1890), p. 180.