

# Secularism and the cultures of nineteenth-century scientific naturalism

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**Abstract.** This essay examines Secularism as developed by George Jacob Holyoake in 1851–1852. While historians have noted the importance of evolutionary thought for freethinking radicals from the 1840s, and others have traced the popularization of agnosticism and Darwinian evolution by later Victorian freethinkers, insufficient attention has been paid to mid-century Secularism as constitutive of the cultural and intellectual environment necessary for the promotion and relative success of scientific naturalism. I argue that Secularism was a significant source for the emerging new creed of scientific naturalism in the mid-nineteenth century. Not only did early Secularism help clear the way by fighting battles with the state and religious interlocutors, but it also served as a source for what Huxley, almost twenty years later, termed ‘agnosticism’. Holyoake modified freethought in the early 1850s, as he forged connections with middle-class literary radicals and budding scientific naturalists, some of whom met in a ‘Confidential Combination’ of freethinkers. Secularism became the new creed for this coterie. Later, Secularism promoted and received reciprocal support from the most prominent group of scientific naturalists, as Holyoake used Bradlaugh’s atheism and neo-Malthusianism as a foil, and maintained relations with Huxley, Spencer and Tyndall through the end of the century. In Holyoake’s Secularism we find the beginnings of the mutation of radical infidelity into the respectability necessary for the acceptance of scientific naturalism, and also the distancing of later forms of infidelity incompatible with it. Holyoake’s Secularism represents an important early stage of scientific naturalism.

In the mid-1840s, a philosophical, social and political movement named Secularism evolved from the radical tradition of Thomas Paine, Richard Carlile, Robert Owen and the radical periodical press.<sup>1</sup> George Jacob Holyoake (1817–1906) founded and named Secularism at mid-century. Born and raised in Birmingham and educated at a Wesleyan Sunday School and the Birmingham Mechanics’ Institute, Holyoake, who had worked as an apprentice whitesmith, became an Owenite social missionary, a ‘moral force’ Chartist, and a leading radical editor and publisher.<sup>2</sup> An innovation of the artisan freethought tradition of which Carlile had been a leading exponent in the 1820s,

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The author wishes to thank Lori R. Price for reading and commenting on numerous drafts of this paper.

1 Secularism will be defined and discussed throughout this paper, but for Holyoake’s own words on the subject see esp. George Jacob Holyoake, *The Principles of Secularism Illustrated*, London: Austin & Co., 1871.

2 Lee Grugel, *George Jacob Holyoake: A Study in the Evolution of a Victorian Radical*, Philadelphia: Porcupine Press, 1976, pp. 2–3. In addition to Grugel’s biography, for biographical sketches of Holyoake see Edward Royle, *Victorian Infidels: The Origins of the British Secularist Movement, 1791–1866*, Manchester: University of Manchester Press, 1974, esp. pp. 3–6, 72–74 and 312; Joseph McCabe, *Life and Letters of George Jacob Holyoake*, 2 vols., London: Watts & Co., 1908; and J.M. Wheeler, *A Biographical Dictionary of Freethinkers of All Ages and Nations*, London: Progressive Pub. Co., 1889.

Secularism drew from the social base of artisan intellectuals who came of age in the era of self-improvement; the diffusion of knowledge; and agitation for social, political and economic reform – but it also enrolled the support of middle-class radicals. Freethought, which Holyoake defined as ‘fearless thinking, based upon impartial inquiry, not regarding doubt as a crime’,<sup>3</sup> sometimes but not always led to atheism or infidelity. Holyoake’s experiences with virulent proponents of anti-theism and infidelity and the hostile reaction to them by state, church and periodical opponents led him to try a different tack, eventually developing the movement he called Secularism at mid-century.

As a particular movement and belief system, Secularism may be viewed as a local, albeit important, stage in the much longer and broader developments of European secularization.<sup>4</sup> First, Secularism represented an option that arose from religious preconditions.<sup>5</sup> It also bore remnants of its religious provenance in ceremonies, Sunday schools, Secular sermons, hymns and so on.<sup>6</sup> Yet, as a particular movement and creed, mid-century Secularism was distinct in that it became inclusive of a naturalistic epistemology, morality and politics that is absent from secularization per se.

In retrospect, Holyoake claimed that he used the words ‘Secular’, ‘Secularist’, and ‘Secularism’ for the first time in his periodical the *Reasoner* (founded 1846), from 1851 through 1852, ‘as a general test of principles of conduct apart from spiritual considerations’, to describe ‘a new way of thinking’, and to define ‘a movement’ based on that thinking, respectively.<sup>7</sup> His bold claims for the original mobilization of the terms are corroborated by the *OED*.<sup>8</sup> In using the words, he reclaimed what had been almost

3 Holyoake, op. cit. (1), p. 9.

4 Scholars have recently challenged the dominant accounts of secularization. For example, the philosopher Charles Taylor, in *A Secular Age*, Cambridge, MA: Belknap Press/Harvard University Press, 2007, criticizes accounts of secularization for their reliance on what he calls ‘subtraction stories’, or narratives of the progressive loss and compartmentalization of religious belief attendant upon the rise of science, industrialization, urbanization and so forth. Taylor argues that as a consequence of disenchantment resulting from religious reformism that began before the Protestant Reformation, faith was undermined as a default position, requiring that ‘belief’ become a matter of positive declaration. Unbelief became a distinct possibility for a growing number, and for non-elites, for the first time. The secular age is marked not by the hegemonic advance of unbelief, but by a condition under which choices are opened up for belief, unbelief and a suspension between the two. Rather than a history of progressive religious decline, secularity changed conditions for both belief and unbelief within itself. Taylor’s account of secularization is useful for understanding Secularism as a nineteenth-century development. Edward Royle, in *Radicals, Secularists and Republicans: Popular Freethought in Britain, 1866–1915*, Manchester: University of Manchester Press, 1980, suggests that Secularism has little to do with modern notions of the secular. This is an unsatisfactory argument that ignores the relationship between Secularism and the broader phenomenon of secularity.

5 Timothy Larsen, *Crisis of Doubt: Honest Faith in Nineteenth-Century England*, Oxford: Oxford University Press, 2006, p. 11.

6 Royle, op. cit. (2), pp. 199–249.

7 George Jacob Holyoake, *English Secularism: A Confession of Belief*, Chicago: Open Court Pub. Co., 1896, pp. 45–49.

8 According to the *OED*, the word ‘secular’ had referred to worldly as opposed to spiritual concerns since as early as the late thirteenth century. The first usage applied to clergy who lived outside of monastic seclusion (*OED* Online: [www.oed.com/view/Entry/174620?redirectedFrom=secular](http://www.oed.com/view/Entry/174620?redirectedFrom=secular)). But never before Holyoake’s mobilization had it been used as an adjective to describe a set of principles or as a noun to positively delineate principles of morality or epistemology (*OED* Online: [www.oed.com/view/Entry/174621?redirectedFrom=Secularism](http://www.oed.com/view/Entry/174621?redirectedFrom=Secularism), pp. 307–308).

an epithet, or what had referred to the meaner concerns of worldly life, for a 'positive' system of knowledge and morality. The Secular principle was in effect an ontological demarcation stratagem, dividing the metaphysical, spiritual or eternal from 'this life' – the material, the worldly or the temporal: 'Secularity draws the line of demarcation between the things of time and the things of eternity'.<sup>9</sup> Like Huxley's later agnosticism, Secularism deemed that whatever could not be 'tested by the experience of this life' should simply be of no concern to the science practitioner, progressive thinker, moralist or politician. The 'Secularist' was one who restricted efforts to 'that province of human duty which belongs to this life'.<sup>10</sup> But, as in Huxley's agnosticism, atheism was not a prerequisite for Secularism. Secularism represented 'unknowingness without denial'.<sup>11</sup> Holyoake did warn against the affirmation of deity and a future life, given that reliance on them might 'betray us from the use of this world' to the detriment of 'progress' and amelioration, but belief was not a disqualification for the pursuit of scientific knowledge or progress, only a possible obstacle. One's beliefs in the supernatural were a matter of speculation or opinion to which one was entitled, unless such beliefs precluded positive knowledge or action.

It is important to distinguish this brand of Secularism from that of Holyoake's eventual rival for the leadership of the Secularist movement, Charles Bradlaugh. Unlike for Bradlaugh, for Holyoake the goal of Secularism was not strictly negative, or aimed essentially at abolishing religious ideology from law, education and government. Holyoake sought to supersede both theism and atheism with a new scientific, educative and moral system. This distinction is not a minor one. The broader process of secularization that has followed and to a great extent preceded Secularism can be faulted for lack of these 'positive' elements adamantly insisted upon by Holyoake, and later jettisoned by Bradlaugh. Most importantly for this discussion, however, Holyoake's Secularism represented the necessary conciliation with respectable middle-class unbelief and liberal theology that would allow for an association with the scientific naturalism of Huxley, Tyndall and Spencer.

As Frank M. Turner has pointed out, 'although a considerable literature has accumulated about the scientific publicists [Thomas Huxley, John Tyndall *et al.*] and their polemical careers, historians have too rarely sought to understand from what previous intellectual tradition or traditions they emerged'.<sup>12</sup> Much work has been done

<sup>9</sup> *Reasoner* (1852) 12, p. 127 footnote. Holyoake thus advanced a demarcation argument over a century before Karl Popper in *The Logic of Scientific Discovery* (New York: Basic Books, 1959).

<sup>10</sup> *Reasoner* (1852) 12, p. 34.

<sup>11</sup> Holyoake, *op. cit.* (7), pp. 36–37. Cf. Herbert Spencer's later *First Principles* (London: Williams and Norgate, 1862), where he asserted the existence of the Unknowable.

<sup>12</sup> Frank M. Turner, *Contesting Cultural Authority: Essays in Victorian Intellectual Life*, Cambridge: Cambridge University Press, 1993, pp. 132–133. To locate these traditions, Turner harks back to eighteenth-century rationalism and Kant's metaphysics. For the most nearly contemporary traditions, he points to the institutions and publications of the nineteenth-century popular enlightenment – 'the Mechanics' Institutes, the Owenite Halls of Science, and the publications of Knight and Chambers'. Given its artisan provenance, he dismisses Secularism out of hand, because, he notes, the new publicists 'had hoped to recruit support from the upper and middle classes'. Such a dismissal ignores the efforts and success of Holyoake's Secularism in securing such support (see discussion below). Turner credits Carlyle for the moral discipline and temperament

over the past twenty or so years to roll back the advent of scientific naturalism from the watershed publication event of 1859 to earlier decades.<sup>13</sup> Historians have noted the importance of evolutionary doctrines to the social and political objectives of earlier freethinking radicals from the 1840s (notably those connected with Holyoake); Adrian Desmond has shown that, even before the publication of *Vestiges of the Natural History of Creation* (1844), radical science advocates among the artisan class marshalled doctrines of species transmutation to advance their anti-clerical, democratic and levelling sociopolitical objectives.<sup>14</sup> More recently, John van Wyhe has argued for the importance of phrenology for the emergence of scientific naturalism by mid-century. Drawing on Robert M. Young's metaphor, 'the river of nineteenth-century naturalism was fed by many streams', Van Wyhe argues that phrenology represented 'another important fountainhead of naturalism'.<sup>15</sup> Others have focused on the promotion of scientific naturalism by Victorian Secularists in the 1880s. Bernard Lightman has noted the importance of late Victorian agnosticism for the spread of scientific naturalism to cloth-cap readers, while Suzanne Paylor has studied the role of Edward B. Aveling in popularizing Darwinian evolution and in turn bolstering atheism.<sup>16</sup> Yet insufficient attention has been paid to mid-century Secularism as constitutive of the cultural and intellectual environment necessary for the promotion and relative success of scientific naturalism beginning in the 1850s.

I argue that Secularism was a significant source for what James R. Moore refers to as the emerging new 'creed' of scientific naturalism in the mid-nineteenth century.<sup>17</sup> Not only did early Secularism help clear the way by fighting battles with the state and religious interlocutors, but it also served as a source for what Huxley, almost twenty years later, termed 'agnosticism', a disposition of scientific naturalism developed to set the limits of scientific knowledge and to protect scientific naturalists from the charges of infidelity and atheism. Holyoake modified freethought in the early 1850s, as he forged connections with middle-class literary radicals and budding scientific naturalists,

of the later naturalists. It is just as conceivable, however, that the self-disciplined, self-improvement tradition of artisan freethought served as a moral example for the new naturalists. See also Bernard Lightman, *The Origins of Agnosticism*, Baltimore: Johns Hopkins University Press, 1987, p. 4.

13 John van Wyhe, *Phrenology and the Origins of Victorian Scientific Naturalism*, Aldershot: Ashgate, 2004, p. 12.

14 Adrian Desmond, 'Artisan resistance and evolution in Britain, 1819–1848', *Osiris* (1987) 3, 2nd series, pp. 77–110; *idem*, *The Politics of Evolution: Morphology, Medicine, and Reform in Radical London*, Chicago: University of Chicago Press, 1989; James Secord, *Victorian Sensation: The Extraordinary Publication, Reception, and Secret Authorship of Vestiges of the Natural History of Creation*, Chicago: University of Chicago Press, 2000, pp. 299–335.

15 Van Wyhe, *op. cit.* (13), pp. 11–12.

16 Bernard Lightman, 'Ideology, evolution and late-Victorian agnostic popularizers', in James Moore (ed.), *History, Humanity and Evolution: Essays for John C. Greene*, Cambridge: Cambridge University Press, 1989, pp. 285–309; *idem*, *Victorian Popularizers of Science: Designing Nature for New Audiences*, Chicago: University of Chicago Press, 2007, pp. 264–265; Suzanne Paylor, 'Edward B. Aveling: the people's Darwin', in *Endeavour* (2005) 29(2), pp. 66–71; Royle, *op. cit.* (2), pp. 149–177.

17 James R. Moore, 'Freethought, secularism, agnosticism: the case of Charles Darwin', in Gerald Parsons (ed.), *Religion in Victorian Britain*, vol.: *Traditions*, Manchester and New York: Manchester University Press, 1988, pp. 274–319.

including Benthamite utilitarians, liberal theists and religious sceptics, some of whom met in a ‘Confidential Combination’ of freethinkers. Secularism became the new creed for this coterie. Later, Secularism promoted and received reciprocal support from the most prominent group of scientific naturalists, as Holyoake used Bradlaugh’s atheism and neo-Malthusianism as a foil, and maintained relations with Huxley, Spencer and Tyndall through the end of the century.<sup>18</sup> The circuit of exchange that developed between Holyoake and the scientific naturalists suggests that Secularism had been important to scientific naturalism all along – and well before the scientific naturalists incorporated Darwinism into their programme – offering a form of naturalism from which Huxley could borrow, and softening the religious animus against naturalistic forms of thought. Although Secularists ‘made little use of Darwin’ before Charles Albert Watts’s emphasis on evolutionary theory in the early 1880s, in Holyoake’s Secularism we find the beginnings of the mutation of radical infidelity into the respectability necessary for the acceptance of scientific naturalism, and also the distancing of later forms of infidelity incompatible with it. Holyoake’s Secularism represents an important early stage of scientific naturalism – a developing creed of freethought that existed between the earlier infidelity and ‘Bradlaugh’s rather crude anti-clericalism and love of Bible-bashing’.<sup>19</sup>

### Print culture from 1840s freethought to Secularism

The development of Secularism can be traced in the periodicals, pamphlets and other publications with which George Holyoake was associated. The roots of this position can be found in two periodicals of 1840s radical infidelity – the *Oracle of Reason; Or, Philosophy Vindicated* (founded 1841) and the *Movement and Anti-persecution Gazette* (founded 1843). The founding of Secularism was announced in the *Reasoner*. These publications eluded the stamp requirement by avoiding the publication of news.<sup>20</sup> However, their editors, especially those of the *Oracle of Reason*, faced arrest in connection with the publication and promotion of blasphemous material. All three magazines began as eight-page weeklies printed in small type, on cheap paper, ranging in price from one, one and a half, to two pennies. Like the useful-knowledge periodicals that began publication before them (for example the *Penny Magazine*), they were glutted with printed matter, and included few illustrations.

This series of freethought periodicals began as working-class productions aimed at working-class readers and others with interests in the condition of the working classes. The ‘Defiant Syndicate of Four’ (Charles Southwell, William Chilton, Maltus Questell Ryall and Holyoake),<sup>21</sup> each of whom was at one time or another an editor of the *Oracle*, hailed from artisan backgrounds. The policies of Secularism changed that

18 Gowan Dawson, *Darwin, Literature and Victorian Respectability*, Cambridge: Cambridge University Press, 2007, p. 151; Lightman, ‘Ideology’, op. cit. (16), p. 301; Michael Mason, *The Making of Victorian Sexual Attitudes*, Oxford: Oxford University Press, 1994.

19 Lightman, ‘Ideology’, op. cit. (16), pp. 287–288.

20 The stamp duty on news had been greatly reduced by 1836 and was eliminated entirely in 1855.

21 George Holyoake, *Sixty Years of an Agitator’s Life*, 2 vols., London: T.F. Unwin, 1892, vol. 1, p. 142.

exclusive basis. Even as early as the *Movement*, the publication founded by Holyoake and Maltus Questell Ryall to replace the *Oracle of Reason* and support the Anti-persecution Union,<sup>22</sup> contributors included middle-class freethinkers such as W.J. Birch, Arthur Trevelyan, George Gwynne and Sophia Dobson Collet.<sup>23</sup>

The *Oracle*, which its editors claimed was ‘the only exclusively ATHEISTICAL print that has appeared in any age or country’,<sup>24</sup> was printed by William Chilton, and published by Southwell, and later by Holyoake. It lasted for two full volumes. Initially relatively successful, attaining a circulation of some four thousand copies per week, publication was interrupted and the circulation likewise fell with the imprisonment of its first editor, Charles Southwell, on 15 January 1842.<sup>25</sup> The *Movement* – printed, published and edited by Holyoake – reportedly circulated in all the northern towns of England but ended several numbers short of two volumes. The *Reasoner* was published by James Watson and later by Holyoake’s brother, Austin Holyoake. It ran for twenty-six volumes, from 1846 to 1861. A new *Reasoner* series, the *Reasoner Review*, began sporadic, monthly publication in 1868. The *Secular Review*, which became the organ of the new breakaway British Secular Society (BSS), began publication in 1876 with Holyoake and Charles Watts as editors. But Holyoake gave little support to the BSS and soon ceased involvement with the publication.<sup>26</sup>

*The Reasoner* was enlarged to sixteen pages with the thirty-eighth number in 1847.<sup>27</sup> Its price varied throughout and the size and the cost of the publication varied in connection with its relative success or financial woes.<sup>28</sup> Its circulation ranged between 1,500 and 5,000, with the greatest success in the early 1850s, when the Secular Society was gaining members in London and branches were founded in the provinces. The *Reasoner* declined from the mid-1850s, when Charles Bradlaugh challenged Holyoake for leadership of the Secularist movement.<sup>29</sup>

The publishing of these radical periodicals was often interrupted by emergencies, such as Charles Southwell’s year-long imprisonment for blasphemy, forcing a lapse of at least a month between numbers of the *Oracle* while William Chilton relocated the publishing of the magazine from Bristol to London and Holyoake was drafted to become its editor.<sup>30</sup> Chilton, Holyoake, Southwell and others continually lamented the exigencies,

22 The Anti-persecution Union was established in 1843 to provide funds for legal aid to arrested freethought editors and booksellers.

23 Royle, op. cit. (2), p. 87.

24 *Oracle of Reason* (1842) 1, p. ii.

25 *Oracle of Reason* (1842) 2, p. iii; Royle, op. cit. (2), p. 74. Adrian Desmond, ‘Artisan resistance’, op. cit. (14), p. 86 n. 31, puts the highest circulation of the *Oracle* at six thousand. For Southwell’s trial and imprisonment see Charles Southwell and William Carpenter, *The Trial of Charles Southwell: (editor of ‘the Oracle of Reason’) for Blasphemy, Before Sir Charles Wetherall [i.e. Wetherell] Recorder of the City of Bristol, January the 14th, 1842*, London: Hetherington, 1842.

26 Grugel, op. cit. (2), pp. 142–143.

27 *Reasoner* (1847) 3, p. 298.

28 The price ranged from one to two pennies. Edward Royle, op. cit. (2), Appendix III, pp. 302–303 and 321–323, tracks the prices, circulation and income of the periodical. For the hardships of publication see, for example, ‘Propagandism’, *Reasoner* (1847) 3, pp. 298–302.

29 Royle, op. cit. (2), pp. 302–303.

30 *Oracle of Reason*, Preface (1843) 2, p. iii.

sacrifices, pains and prosecutions of radical advocacy publishing. Work was long, personal sacrifice was the norm, income was never guaranteed and the publications were produced at great personal risk, including the risk of imprisonment. Add to these dangers the exposure to vehement criticism from other periodicals and the detriments could often seem to outweigh the benefits. Such was the case for Southwell. After being released from his year-long imprisonment in Bristol jail for publishing the *Oracle*, he decided not to take on the additional burden of debt associated with it. As a printer and a writer, Chilton often composed articles while standing to typeset them and later argued that his writing should be read with these conditions in mind. He limited the effects to the 'rough and rude' style of his entries, but the material conditions informed not only the style but also the very ideas that were voiced, ideas that eventually influenced even 'respectable' radicals.<sup>31</sup>

The publication of Holyoake's *Reasoner* marked the shift of freethought from radical infidelity to Secularism, and its influence on literary radicals and middle-class reformers was also apparent in the *Leader*, for which Holyoake was a contributor and 'commissariat' or business manager.<sup>32</sup> Holyoake opened the pages of the *Reasoner* to 'respectable' radicals such as Thornton Hunt, Francis W. Newman and Harriet Martineau, while regularly recognizing the work of Herbert Spencer, J.A. Froude, Francis Newman, George Henry Lewes, James Martineau, Harriet Martineau and the founder of French positivism, Auguste Comte.<sup>33</sup> Holyoake's 'moral soundness' and conciliatory freethought stance with reference to theists attracted Newman and other liberal theists and managed to unite them with sceptics under Secularism's broadened tent. In 1855, Newman granted Holyoake open-ended permission to reprint in the *Reasoner* 'various articles which have already appeared from my pen'. He based his decision on Holyoake's 'uncompromising hostility to false or unjust systems, and a tender and just allowance for the men who carry on those systems' as well as his desire that Holyoake become 'a political spokesman for English operatives'.<sup>34</sup> Holyoake reprinted several of Newman's 'Political Fragments' in the *Reasoner*,<sup>35</sup> and published Newman's short book of letters, *Personal Narrative*.<sup>36</sup> Hunt was impressed by Holyoake's tolerance of the free expression of opposing opinion.<sup>37</sup> He granted Holyoake open-ended permission to use a number of his *Leader* articles, and reprints appeared in the *Reasoner*.<sup>38</sup> Martineau wrote letters to the *Reasoner* in answer to various correspondents and commented favorably on the periodical in correspondence with Holyoake, preferring it over the *Leader* for its tone and

31 *Reasoner* (1847) 3, pp. 607–610, 607.

32 Holyoake, op. cit. (21), vol. 1, pp. 238–239.

33 'The "Positive philosophy of Auguste Comte"', *Reasoner* (1854) 16, pp. 8–9, 120.

34 *Reasoner* (1855) 10, p. 154, reprinted in Holyoake, op. cit. (1), back matter.

35 Grugel, op. cit. (2), p. 84.

36 Francis W. Newman, *Personal Narrative, in Letters: Principally from Turkey, in the Years 1830–3*, London: Holyoake, 1856.

37 Holyoake, op. cit. (1), back matter.

38 Thornton Hunt to George Holyoake, 27 January 1851, the National Co-operative Archive, Manchester (subsequently NCA). Articles included 'The National Charter and Social Reform Union', *Reasoner* (1855) 10, p. 16.

content.<sup>39</sup> Subscribers and financial supporters of the *Reasoner* included the relatively wealthy middle-class advocates of freethought, such as W.H. Ashurst and W.J. Birch, amongst others.<sup>40</sup>

Holyoake's alliance of artisan and middle-class unbelievers preceded by over thirty years a similar attempt by the son of the famous Secularist Charles Watts, Charles Albert Watts, who appropriated the idea of agnosticism for his *Agnostic Annual* in 1884, 'to move towards an alliance with eminent middle-class unbelievers and away from secularism's radical working-class roots'.<sup>41</sup> Secularism, while never disavowing its artisan class origins, had already forged such alliances with eminent middle-class unbelievers, in fact, attracting them on the basis of its programme of greater inclusion. Secularism was meant to reach a segment of the many thousands who were, of whatever class or nationality, 'without the pale of Christianity', despite the best efforts of the clergy or evangelicals. Of these many thousands, neither the vice-ridden sensualist nor the intellectually maladroit was aimed at, but rather those who had given careful thought to the question of belief.<sup>42</sup>

### Working-class evolution before Darwin

Lamarckian transmutation theory played a major role in the freethought movement from the 1840s. In the 'hungry forties', evolutionary ideas were marshalled to counter a static, hierarchical, theocratic social order with a vision of a transformative, 'uprising' nature. An anti-theistic explanation for workings of nature was welded to undercut the authority of the clerics and the basis of the state church. The malleability of the natural order spoke to the possibilities of changing social conditions.<sup>43</sup>

Beginning with the first number in November of 1841, the *Oracle* included a serial article begun by Charles Southwell and continued by William Chilton entitled 'Theory of regular gradation', with woodcut illustrations of primitive man, fossils and 'early' organisms. Serial publication lent itself well to the illustration of a theory of serial species change and development. As Secord notes, the first instalment of 'Theory of regular gradation' began with an engraving of 'Fossil Man',<sup>44</sup> 'a racist fantasy lifted from the writings of the hack naturalist Pierre Boitard',<sup>45</sup> and representing 'man underdeveloped, as we are justified in supposing he was at that stage of his progress, when he was not exactly either monkey or man'.<sup>46</sup> The third instalment began with a quote from William

39 Harriet Martineau, 'Letter from Miss Martineau in reply to "Old Theology"', *Reasoner* (1854) 16, p. 332; 'Miss Martineau's answer', *Reasoner* (1854) 17, p. 12; Harriet Martineau to George Jacob Holyoake, 17 May 1854, in *Harriet Martineau: Selected Letters* (ed. Valerie Sanders), Oxford: Clarendon Press, 1990, pp. 127–128.

40 Royle, op. cit. (2), p. 216; Desmond, 'Artisan resistance', op. cit. (14), p. 107.

41 Bernard Lightman, 'Huxley and scientific agnosticism: the strange history of a failed rhetorical strategy', *BJHS* (2002) 35, pp. 271–289, 284.

42 Holyoake, op. cit. (1), p. 25.

43 Desmond, 'Artisan resistance', op. cit. (14); Moore, op. cit. (17), pp. 284–285.

44 [Charles Southwell], *Oracle of Reason* (6 November 1841) 1(2), pp. 5–6.

45 Secord, op. cit. (14), p. 311.

46 William Chilton, *Oracle of Reason* (20 November 1841) 1(3), pp. 21–23, 21.



Lawrence, the materialist and former professor of anatomy and physiology at the Royal College of Surgeons, whose expulsion had become a cause célèbre for the radical infidel Richard Carlile.<sup>47</sup>

By the seventh instalment of the article, with Charles Southwell imprisoned in Bristol jail for blasphemy in connection with the publication of his Christian-goading, anti-Semitic article ‘The Jew Book’, Holyoake had taken over active editorship of the *Oracle*. William Chilton began authorship of ‘Theory of regular gradation’. Chilton, whom Holyoake described as ‘the only absolute atheist I have ever known’,<sup>48</sup> immediately worked to establish first principles, arguing

that the inherent properties of dull matter, as some bright portions of it have designated it, are good and sufficient to produce all the varied, complicated, and beautiful phenomena of the universe – however numerous the differences in other spheres may be in addition to those of our own . . .

The usual objections to materialism, Chilton argued, were based on an inadequate and impoverished conception of matter as ‘dull’ and inert. Instead, he saw matter as eternal and inherently possessing all of the properties necessary to produce its multifarious emanations, found throughout time and space:

For believing matter to be infinitely extended, to be infinitely divisible, and capable of infinite combination or arrangement of the particles – we see no reason in flying to supernaturalism for an explanation of the ultimate causes which produce the results we witness . . .<sup>49</sup>

Chilton even dismissed the usual distinction between living and non-living matter. Stones and crystals were ‘alive’. They changed and evolved in the same sense as did ‘organic’ matter.

For such materialists, matter was the sole creative force in the universe, capable of doing anything previously ascribed to God, including the production of new species. God was a phantasm invented to strip matter of its rightful throne. Chilton posited an inherent, *a priori*, teleological disposition in nature, a tendency toward complexity and progress, and proffered the Lamarckian notion of adaptation to changed conditions by species from the remotest ancestor to the present:

it adapted itself to alterations in the surrounding circumstances which were continually taking place; and, in process of time, resulted in a form so distinct from the first, as, without the intermediate modifications, to warrant the supposition that it never could have been produced from, or had any connexion with, it.<sup>50</sup>

As Secord notes, under Chilton’s pen, in addition to general principles, ‘Theory of regular gradation’ included ‘recondite details’ from the works of ‘Cuvier, Robert Grant and other authorities’.<sup>51</sup> The series began to follow Chambers’s *Information for the*

47 Joel Wiener, *Radicalism and Freethought in Nineteenth-Century Britain: The Life of Richard Carlile*, Westport, CT: Greenwood Press, 1983, pp. 110–112.

48 Holyoake, op. cit. (21), p. 142.

49 William Chilton, ‘Theory of regular gradation’, *Oracle of Reason* (19 February 1842) 1(9), pp. 77–78.

50 Chilton, op. cit. (49), p. 78.

51 Secord, op. cit. (14), p. 311.

*People*, adducing some of the same source material that would be used in *Vestiges of the Natural History of Creation* (1844), but appropriating it for avowedly materialist, atheistic ends. For example, Chilton adopted the nebular hypothesis as found in *Information for the People*,<sup>52</sup> nevertheless ridiculing the admission by ‘Messrs. Chambers’ that they found the hypothesis ‘new and startling’. The nebular hypothesis served Chilton’s evolutionary agenda. Such ideas, Chilton claimed, had been propounded ‘years before, by the despised, insulted, and persecuted Infidel’, well before they had been safely accepted and ‘given to the world by respectable men’.<sup>53</sup>

The species transformism of the *Oracle* preceded the appearance of evolutionary thinking in Chambers’s *Vestiges* by a few years.<sup>54</sup> In fact, by the time *Vestiges* had been published, Chilton had already mined many of the same sources that Chambers used for his evolutionary cosmogony. In the process, he virulently criticized ‘the cowardice and dishonesty’ of scientific men and science publishers like Chambers, who failed to openly avow the atheistic implications of recent findings in the physical sciences. Rather than removing error from the public mind, error was compounded by the mixing of scientific facts with religious speculation.<sup>55</sup>

By 1844 and the publication of *Vestiges*, the *Oracle* had been superseded by the *Movement* and the ‘Theory of regular gradation’ had been discontinued. Before ending the series, Chilton apologized to readers of the *Oracle* for his apparent failure to engage his readers with the material. He admitted that the series might have been made unnecessarily dry and difficult. ‘This course in other hands might have been fraught with beneficial results, but in my case I fear it has failed’, he wrote in the thirty-eighth instalment.<sup>56</sup> Chilton recognized *Vestiges* as a ‘successful’ version of his efforts when the treatise appeared only a year later.

Chilton’s response to *Vestiges* corroborates Secord’s claim that Chambers had ‘domesticated’ evolutionary theory by bringing it into the middle-class Victorian home.<sup>57</sup> While claiming that the work included ‘nothing new’, Chilton suggested that the treatise nevertheless presented evolutionary ideas that were ‘new to the world’ and thus had the potential to ‘startle many a pedant from his slumbers’.<sup>58</sup> However, such potential had to be drawn out by the freethinker. Chilton saw the publication as an opportunity to reinterpret evolutionary theory so that its radical implications could be made clearer, likewise undermining its domesticating effect. Two years after its publication, he continued to write about *Vestiges* in the *Reasoner*, criticizing both

52 William Chilton, ‘Theory of regular gradation’, *Oracle of Reason* (2 April 1842) 1(15), pp. 123–125.

53 William Chilton, ‘Theory of regular gradation’, *Oracle of Reason* (9 April 1842) 1(16), p. 134, original emphasis.

54 The first instalment of ‘Theory of regular gradation’ was on 6 November 1841.

55 William Chilton, ‘The cowardice and dishonesty of scientific men’, *Oracle of Reason* (4 June 1842) 1(24), pp. 193–195.

56 William Chilton, ‘Theory of regular gradation’, *Oracle of Reason* (24 June 1843) 2(80), pp. 219–221, 220.

57 J.A. Secord, ‘Behind the veil: Robert Chambers and *Vestiges*’, in James Moore (ed.), *History, Humanity and Evolution: Essays for John C. Greene*, Cambridge: Cambridge University Press, 1989, pp. 165–194, 182–187.

58 William Chilton, ‘*Vestiges*’, *Movement* (8 January 1845) 2, pp. 9–12, 12.

its theism and the accusations of its critics, who insisted that its author was a materialist: ‘The author of the “Vestiges” is no materialist. He looks through matter up to matter’s god; he is, in fact, “a pure Theist”’.<sup>59</sup> Holyoake also seized on the opportunity to use *Vestiges* as a vehicle for extending the reach of freethought. In 1845, he devoted a Sunday lecture to ‘the origin of man as set forth in that extraordinary work just published, entitled *Vestiges of the Natural History of Creation*’, and, as a letter from Chilton attests, even planned to write a book on the topic.<sup>60</sup> While Holyoake never completed his digest of *Vestiges*, his consideration of the project speaks volumes of his desire to enter into other circles for the promulgation of freethinking ideas.

### A ‘Confidential Combination’ and the *Leader*

In July of 1849, Holyoake initiated his foray into radical middle-class literary circles with the review of George Henry Lewes’s *The Life of Maximilien Robespierre* in the *Reasoner*.<sup>61</sup> He sent a copy of the review along with other numbers of the periodical to the biography’s author at Bedford Place. Although unsure how long the papers had ‘been lying there’ before taking notice, by August Lewes had read the review and was impressed with its ‘tone & talent’ although ‘dissent[ing] from most of its conclusions’. In the company of Thornton Hunt, the son of radical poet Leigh Hunt, Lewes fired off a missive to the *Reasoner* offices and invited Holyoake for a cigar the following Monday, a night that Hunt was also available.<sup>62</sup> Thus began lasting friendships that signalled Holyoake’s most significant literary success and began the bridge-building to respectable society that would gain him admittance into the salons of numerous literary, political and scientific luminaries of the day. The connections initiated the cross-pollination of working- and middle-class freethought that would result in Secularism. Doubtless, Holyoake’s notoriety as a leading artisan radical (presumably the last to serve jail time for atheism<sup>63</sup>) and journalist with sober judgement had facilitated this welcome into middle-class radical society, where he met and discussed politics and philosophy with the legatees of philosophical radicalism, including Francis Place, Robert Owen, W.H. Ashurst, Francis Newman, Thornton Hunt, George Henry Lewes, Harriet Martineau, Herbert Spencer, Louis Blanc and others.<sup>64</sup> As noted above, a few of these heterodox thinkers even contributed articles to the *Reasoner*.

59 William Chilton, “Materialism” and the author of the “Vestiges”, *Reasoner* (1846) 1, pp. 7–8. See also *idem*, ‘Anthropomorphism’, *Reasoner* (1846) 1, pp. 36–37; F.B. Barton, B.A., ‘The laws of Nature’, *Reasoner* (1846) 2, pp. 25–30.

60 William Chilton to George Holyoake, 1 February 1846, NCA. Here Chilton reveals to Holyoake that he knows the name of the author of *Vestiges*.

61 *Reasoner* (18 July 1849) 7(164), pp. 33–37; *Reasoner* (25 July 1849) 7(165), pp. 49–53.

62 George Henry Lewes to George Holyoake, 8 August 1849, NCA.

63 George Holyoake, *The History of the Last Trial by Jury for Atheism in England: A Fragment of Autobiography*, London: Watson, 1850.

64 McCabe, *op. cit.* (2), vol. 1, p. 145; Royle, *op. cit.* (2), pp. 154–155; Barbara J. Blaszak, *George Jacob Holyoake (1817–1906) and the Development of the British Cooperative Movement*, Lewiston: E. Mellen Press, 1988, p. 17; Rosemary Ashton, *142 Strand: A Radical Address in Victorian London*, London: Vintage, 2008, pp. 8–9.

As a liberal activist and rising journalist, Thornton Hunt was a gentlemanly counterpart of Holyoake. The two became fast friends despite Holyoake's humbler background and Hunt's unorthodox orientation toward sexual relations, which, embraced by a working-class radical, would have been a greater scandal. By the end of 1849, Hunt already considered Holyoake an intimate to be included in his various activist schemes. His organizational plans for a 'Confidential Combination' of freethinkers and a 'Political Exchange' may have proven significant for Secularism. Edward Royle considers the Political Exchange foundational.<sup>65</sup> But the draft proposals that Hunt sent to Holyoake suggest that the Confidential Combination, with which the former has been confused, was envisioned as a means to enlist wary middle-class freethinkers into an anonymous group where they might voice advanced opinions on 'politics, sociology, or religion' without fear of reprisal.<sup>66</sup> The Political Exchange, on the other hand, never came to fruition, and Hunt's proposal makes clear that it was intended as a public group for the commingling of persons of various political persuasions, not as an organization for the advancement of radical thought.<sup>67</sup> Considering Hunt's confessions to Holyoake in correspondence regarding his position on marital infidelity and his lack of respect for 'the existing moral code in this country',<sup>68</sup> one may surmise that the 'sociology' to be discussed at the Confidential Combination had at least something to do with marital policy and a scientific system of morality, and 'religion' with secular ideas, both of which might involve 'opinions considerably in advance of those which they [publicly] avow'.<sup>69</sup> The club's purpose was to circumvent the 'tyranny which keeps down the expression of opinion in our time, [which] though less dangerous than it has been in times past, is more domesticated, more searching, and constraining'.<sup>70</sup> This anonymous club no doubt included Holyoake, Lewes, Hunt, Herbert Spencer, W. Savage Landor, W.J. Linton, W.E. Forster, T. Ballantine and George Hooper, all of whom became contributors to the *Leader*. The members met at the Whittington Club at the old Crown and Anchor on the Strand. There Holyoake regularly met with Herbert Spencer, whom Holyoake described as having 'a half-rustic look' and giving 'the impression of being a young country gentleman of the sporting farmer type'.<sup>71</sup> Spencer and Holyoake remained lifelong friends, with regular correspondence continuing to 1894 (although Spencer's refusal in 1882 to travel to America on the same ship as Holyoake, owing to Holyoake's earlier days as a reputed radical atheist, surely indicated the limits of this friendship).<sup>72</sup>

65 Royle, op. cit. (2), p. 154.

66 Thornton Hunt to George Holyoake, 18 December 1849, NCA.

67 Thornton Hunt to Henry Travis, 21 October 1850, Holyoake Papers, Bishopgate Institute Library, London.

68 Thornton Hunt to George Holyoake, 13 September 1852, NCA.

69 Thornton Hunt to George Holyoake, 18 December 1849, NCA.

70 Thornton Hunt to George Holyoake, 18 December 1849, NCA.

71 McCabe, op. cit. (2), vol. 1, pp. 162–163.

72 Herbert Spencer to George Holyoake, 17 September 1894, NCA; Herbert Spencer to George Holyoake, 4 April 1882, NCA. Spencer's avoidance of such public association with Holyoake is explicable in terms of the former's concern for his reputation in the press. It does not, however, negate the support that Spencer provided Holyoake otherwise. See the following section.

The group also included W.H. Ashurst, '[Robert] Owen's lawyer and advisor to a generation of radical leaders'. Ashurst encouraged Holyoake in the development of the new Secularist movement and with one hundred pounds bankrolled the reissue of the *Reasoner* in 1849. According to Royle, it was to Ashurst that Holyoake owed the use of the words 'Secular' and 'Secularist' to describe the new branch of freethought then under formation, although no mention of the terms can be found in correspondence between the two.<sup>73</sup> In any case, the anonymous club was undoubtedly the breeding ground of middle-class support for the budding Secularist movement and served to germinate the programme of Secularism eventually expounded by Holyoake.

Many from this same circle of London writers, including Holyoake, also met at 142 Strand, the home and publishing house of John Chapman, the publisher of the *Westminster Review*, the organ of philosophical radicalism.<sup>74</sup> Contributors to the periodical included Lewes, Marian Evans (soon to adopt the penname of George Eliot), Herbert Spencer, Harriet Martineau, Charles Bray, George Combe and, by 1853, Thomas Huxley. Many of the *Westminster* writers, especially John Stuart Mill and Frederic Harrison, showed an avid interest in the writings of Auguste Comte 'and in his platform for social improvement through a progressive elaboration of the sciences'.<sup>75</sup> Marian Evans reviewed for the *Westminster* Robert William Mackay's *The Progress of the Intellect* (1850), a work of Comtean orientation.<sup>76</sup> Holyoake came to know Comte's ideas through his association with Lewes and Evans, as well through Harriet Martineau, who was then preparing her translation of his *Positive Philosophy*. Holyoake's contact with Comtean ideas was essential for the step that he was contemplating—to take freethought in a new direction.<sup>77</sup> In the *Reasoner* in the 1850s, Holyoake regularly cited Comte's famous phrase, 'Nothing is destroyed until it is replaced', which he appropriated for Secularism. Like Comte, Holyoake believed that religion had to be replaced with a 'positive' creed rather than being simply negated by atheism. Martineau approvingly noticed the new direction in which Holyoake was taking freethought:

The adoption of the term Secularism is justified by its including a large number of persons who are not Atheists, and uniting them for action which has Secularism for its object, and not Atheism . . . [I]f by the adoption of a new term, a vast amount of impediment from prejudice is got rid of, the use of the term Secularism is found advantageous.<sup>78</sup>

The *Westminster Review* ran an article on Secularism in 1853, stressing that with Secularism, freethought had 'abandoned the disproof of deity, contenting itself with the

<sup>73</sup> Royle, op. cit. (2), pp. 154–155.

<sup>74</sup> Ashton, op. cit. (64). For Holyoake, see esp. pp. 8–9.

<sup>75</sup> Paul White, *Thomas Huxley: Making the 'Man of Science'*, Cambridge: Cambridge University Press, 2003, p. 70.

<sup>76</sup> [George Eliot], 'Mackay's progress of the intellect', *Westminster Review* (October 1850) 54, pp. 353–368.

<sup>77</sup> Royle, op. cit. (2), p. 156.

<sup>78</sup> Harriet Martineau, *Boston Liberator* (November 1853), quoted in the *Reasoner* (1 January 1854) 16(1), p. 5. The quote circulated widely and was found as far afield as the *Scripture Reader's Journal* for April 1856, pp. 363–364.

assertion that nothing could be known on the subject'.<sup>79</sup> In 1862, the *Westminster* claimed, rather wishfully, that Secularism had become the belief system of the silent majority of the working classes, whatever the number of those who subscribed to its periodicals or associated with its official organizational structures.<sup>80</sup>

Adrian Desmond paints a picture of a London literary and intellectual avant-garde in which Holyoake had moved from the radical artisan fringes to become a central figure, in which "Secularism" was their watchword, and the *Reasoner* the leading propagandist organ.

At age twenty-five and not yet a fellow in the Royal Society, Huxley was introduced to the leading lights in the scene, including Spencer, Lewes, Marian Evans and, undoubtedly, Holyoake.<sup>81</sup> As a writer for the *Westminster* by 1853, he could not have but taken notice of the new notion of Secularism then in circulation.

Hunt's aspirations for the public voicing of radical opinion was more nearly realized with the weekly newspaper, the *Leader*, founded in 1850 and edited by himself and Lewes. In March of 1850, Hunt sent the prospectus for the periodical to his friends, including Holyoake, and the paper began publication on the thirtieth. The weekly positioned itself at the forefront of liberal opinion. George Lewes was responsible for the reviews of literature and the arts and Marian Evans assisted him with editing and writing. Hunt was the chief political editor and contributor. Holyoake had secured the premises in Crane Court, was retained as the business manager, and contributed regular articles on the cooperative movement under the pseudonym 'Ion'.<sup>82</sup>

By the early 1850s, cross-pollination between the middle- and working-class freethought movements was well under way. Holyoake's reviews and notices of the works of Francis Newman, Lewes, Martineau and others in the *Reasoner*, together with his work at the *Leader* and the notices of his Secularism in the *Westminster*, completed a two-way circuit of exchange. The exchange went beyond literary circles. In 1847 and 1849, Holyoake had been sponsored to take classes at the London University, 'a reformist melting pot', where Broughamite educational reformers and medical and political radicals mingled. These included George Birkbeck and Thomas Hodgskin, who had battled for control of the new London Mechanics' Institute and the *Mechanic's Magazine* in the early 1820s;<sup>83</sup> *Lancet* editor Thomas Wakley's medical-reform coterie, including Robert Grant, D.D. Davis and George Dermott; and future secretary to the People's Charter Union, C. Dobson Collet. Although this was an activist hodgepodge, common ideological commitments can be discerned, including a progressive scientific

79 [Ebenezer Syme], 'Contemporary literature of England', *Westminster and Foreign Quarterly Review*, 1 July 1853, p. 129. The article was a review of several books, including of the debate between Reverend Brewin Grant and Holyoake as recorded in Brewin Grant and George Holyoake, *Christianity and Secularism: Report of a Public Discussion between Brewin Grant and George Jacob Holyoake, Esq.*, London: Ward, 1853.

80 [William Binn], 'The religious heresies of the working classes', *Westminster Review* (1862) 77, pp. 32–52.

81 Adrian Desmond, *Huxley: From Devil's Disciple to Evolution's High Priest*, Reading, MA: Addison-Wesley, 1997, p. 160.

82 Royle, op. cit. (2), p. 154.

83 Michael Rectenwald, 'The publics of science: periodicals and the making of British science', PhD thesis, Carnegie Mellon University, 2004, pp. 104–111.

naturalism, ‘plebeian participation in science and medicine’, and social and political meliorism.<sup>84</sup> It was in this setting that Holyoake finally met the father of English socialism, Robert Owen.<sup>85</sup>

Holyoake was admittedly flattered by his reception among middle-class intellectual circles, and boasted of it in his writing. He paid tribute to Eliot and Lewes in his book *Bygones Worth Remembering* (1905), stating that until he was received by such company, his had been ‘an outcast name, both in law and literature’. His inclusion in the *Leader* was ‘the first recognition of the kind I have received’.<sup>86</sup> In what is perhaps a fitting ending to the story, the mingling of these groups found its ultimate expression at Holyoake’s burial in Highgate Cemetery. Years before, Holyoake had purchased a plot at the head of the graves of Eliot and Lewes, where his ashes were buried in January 1906 during a service attended by thousands of Owenite cooperators and old friends.<sup>87</sup>

This conciliation with non-atheists and middlebrow radicals was seen by many of Holyoake’s older working-class acquaintances as the gentrification of working-class infidelity as it merged with the gradualist, middle-class scientific meliorism ascribed to George Eliot by Charles Bray and others:

She held as a solemn conviction . . . that in proportion as the thoughts of men and women are removed from the earth . . . are diverted from their own mutual relations and responsibilities, of which they alone know anything, to an invisible world, which alone can be apprehended by belief, they are led to neglect their duty to each other, to squander their strength in vain speculations . . . which diminish their capacity for strenuous and worthy action, during a span of life, brief indeed, but whose consequences will extend to remote posterity.<sup>88</sup>

This view was representative of Secularism, which evolved philosophically in connection with such influences and was developed by Holyoake expressly in order to accommodate them.

### Holyoake, Secularism and the scientific naturalists

As Gowan Dawson notes, while ‘Darwin’s deliberate and often rather haughty eschewal’ of the Bradlaugh wing of Secularism is well known, ‘the simultaneous endeavours of some of his principal supporters, including Huxley and John Tyndall, to forge closer connections with those free-thinkers and radicals’ in the Holyoake camp of Secularism ‘are less well known’. Yet, he continues, the ‘complex negotiations’ with such freethinkers ‘were crucial to the endeavour to establish Darwinism’.<sup>89</sup>

The connection of Holyoake’s Secularism to scientific naturalism consisted of a philosophical family resemblance, but it also entailed a communications network and mutual support system. In the 1850s, in connection with the new Secularist circle

84 Desmond, ‘Artisan resistance’, op. cit. (14), pp. 105–106.

85 Holyoake, op. cit. (21), vol. 1, p. 117.

86 George Holyoake, *Bygones Worth Remembering*, London: T.F. Unwin, 1905, p. 64.

87 Grugel, op. cit. (2), p. 155.

88 George Eliot quoted in Edith Simcox, ‘George Eliot’, *Nineteenth Century* (May 1881) 9, p. 787; Edith Simcox quoted in Jane Hume Clapperton, *Scientific Meliorism and the Evolution of Happiness*, London: K. Paul, Trench & Co, 1885, pp. vii–viii.

89 Dawson, op. cit. (18), p. 120.

surrounding the *Reasoner* and the *Leader*, Holyoake had made contact with Spencer. By the 1860s, as correspondence and other evidence shows, Holyoake had secured the confidence of the leading lights as they forged ahead in establishing the hegemony of scientific naturalism. He had proven himself a trustworthy figure, ‘the former firebrand’<sup>90</sup> whose opinions and behavior were congruent with middle-class morality (or elite culture).<sup>91</sup> Holyoake’s Secularism could not be mistaken for the old infidelity and he conveniently used Bradlaugh’s atheism and neo-Malthusianism as a foil to differentiate his strand. In return for the support of the scientific naturalists, Holyoake provided a safe bridge back to working-class unbelief for the promotion of evolutionary science and respectable scientific naturalism.

From as early as 1860, until the end of the century, Holyoake regularly corresponded with Spencer, Huxley and Tyndall. The topics of these letters were various, and generally the tone grew from polite cordiality to greater warmth as the relationships developed. The letters covered numerous issues, including polemics against religious interlocutors,<sup>92</sup> the mutual promotion of literature,<sup>93</sup> the naturalists’ financial and written support for Secularism and Secularists<sup>94</sup> and health,<sup>95</sup> amongst other topics.

Therefore Dawson is mistaken when he suggests that the relationship between the Holyoake camp and the scientific naturalists was based exclusively on birth control and sexual policy. According to this interpretation, the fallout occasioned by the republication and legal defence of Knowlton’s *The Fruits of Philosophy* in 1877 by Charles Bradlaugh and Annie Besant became the primary reason for the division between the Holyoake and Bradlaugh camps. Birth control and sexual policy, Dawson argues, ‘were by far the most divisive issue[s] within the British freethought movement in the nineteenth century’. According to Dawson, the distinction between what Michael Mason refers to as the ‘anti-sensual progressive’ (Holyoake) and the ‘pro-sensual’ (Bradlaugh) Secularist camps was the sole basis for the different esteem the two camps were accorded by the Darwinian circle. Bradlaugh’s ‘neo-Malthusian’ position was deplored by Darwin, Huxley, Tyndall and others, who ‘vehemently opposed any attempts by radicals to appropriate evolutionary theory to justify their support for contraception’.<sup>96</sup> They found Holyoake acceptable due to his compatible sexual policies.

90 Desmond, op. cit. (81), p. 160.

91 Here I am recognizing the divergent views of Desmond and White; Desmond figures Huxley as a champion of industrial, middle-class values, while White sees him as working to construct science as part of an elite culture that stood in judgement of middle-class values.

92 Thomas Huxley to George Holyoake, 2 April 1873, NCA; John Tyndall to George Holyoake, 16 November 1876, NCA; George Holyoake to Thomas Huxley, 20 April 1887, T.H. Huxley Papers, Imperial College London (subsequently HP); Thomas Huxley to George Holyoake, 31 March 1891, NCA.

93 George Holyoake to Thomas Huxley, 26 March 1891, HP; Herbert Spencer to George Holyoake, 22 April 1860, NCA.

94 Herbert Spencer to George Holyoake, 14 July 1879, NCA; John Tyndall to George Holyoake, 18 June 1883, NCA; George Holyoake to Thomas Huxley, 26 March 1891, HP.

95 Thomas Huxley to George Holyoake, 2 November 1875, NCA; Herbert Spencer to George Holyoake, 28 April 1875, NCA; Tyndall to Evans Bell, 15 April 1875, NCA.

96 Dawson, op. cit. (18), p. 119.



Dawson's interpretation ignores the earlier relationships between Holyoake and the scientific naturalists, as well as the fundamental division within Secularism. The primary split dated to the early 1850s and went to the definition of Secularism itself. Years before the Knowlton affair, Holyoake had denied that Bradlaugh was a Secularist at all.<sup>97</sup> Bradlaugh and company insisted on atheism as an essential conviction for the Secularist and bitterly reproached Holyoake and his followers for their conciliation with theists. In fact, Bradlaugh's rise had much to do with the trenchant anti-theistic and anti-clerical rhetoric he and others conducted in the *National Reformer*.<sup>98</sup>

As Huxley struggled to dissociate himself from materialism and atheism throughout his polemical career, Holyoake provided ready assistance.<sup>99</sup> For example, in April 1873, four years before the Knowlton affair, Huxley wrote to Holyoake,

I am too lazy to defend myself against injustice although I am all the more obliged to men who are generous enough to take the tumble for me—so I offer you my best thanks for your successes [in arguing] against [Moncure] Conway's association of me with Bradlaugh & Co.—for whom & all their ways and works I have a peculiar abhorrence.<sup>100</sup>

Such abhorrence involved 'the coarse atheistic philosophy of Bradlaugh and his secularists [which] had always repelled Huxley and many of his scientific naturalist colleagues'.<sup>101</sup>

Nevertheless, the secession of Holyoake, Charles Watts and other freethought radicals from the National Secular Society, and their founding of the British Secular Union in August 1877 in the wake of the Knowlton affair, certainly did much to cement relations between the Holyoake Secularist wing and the Darwinian naturalists. In July 1877, when the controversy was raging, Tyndall wrote to Holyoake thanking him for a clipping from the *Birmingham Weekly* (in which Holyoake denounced the publication of *Fruits of Philosophy*), adding the remark, 'I do not agree with you in all political things, but I have always recognized your straightforwardness and truth.'<sup>102</sup> In his presidential address to the Birmingham Midland Institute in October 1877, Tyndall extolled Holyoake as an exemplar of secular morality:

To many of you the name of George Jacob Holyoake is doubtless familiar, and you are probably aware that at no man in England has the term 'atheist' been more frequently pelted. There are, moreover, really few who have more completely liberated themselves from theologic notions. Among working-class politicians Mr Holyoake is a leader. Does he exhort his followers to 'Eat and drink, for to-morrow we die?' Not so.<sup>103</sup>

97 George J. Holyoake and Charles Bradlaugh, *Secularism, Scepticism, and Atheism: Verbatim Report of the Proceedings of a Two Nights' Public Debate between Messrs. G.J. Holyoake & C. Bradlaugh: Held at the New Hall of Science... London, on the Evenings of March 10 and 11, 1870*, London: Austin, 1870; George Jacob Holyoake, 'The field of action', *Secular Review*, 6 August 1876.

98 Royle, op. cit. (2), pp. 91–92.

99 White, op. cit. (75), p. 90; Desmond, op. cit. (81), pp. 232 and 319–321.

100 Thomas Huxley to George Holyoake, 2 April 1873, NCA.

101 Lightman, *Victorian Popularizers*, op. cit. (16), p. 264.

102 John Tyndall to George Holyoake, 21 July 1877, NCA.

103 John Tyndall, *Fragments of Science: A Series of Detached Essays, Addresses, and Reviews*, vol. 2, New York and London: D. Appleton and Company, 1915, p. 366.

From the 1860s through the 1870s, Holyoake became a correspondent for the radical British and American presses, reporting on meetings of the British Association for the Advancement of Science, just as the scientific naturalists had emerged as dominant players.<sup>104</sup> In 1870, when Huxley became president of the BAAS and presided over the proceedings in Newcastle upon Tyne, Holyoake, who was covering the meeting, wrote to Huxley to complain about the treatment of the press. ‘If science, as Prince Albert said, is to be popular, you know the press is one of its agents. No association treats the press more coldly than the Brit. Assn.’ He lamented the ‘Reporter Admission’ (£15) and the BAAS’s refusal to give him a copy of Huxley’s presidential address: ‘What can be the cost of a copy – even if the applicant known to be of the press misused it – compared with the service which as a rule they render?’ Holyoake ended by promising to ‘celebrate your [Huxley’s] reign to the ends of the earth’, if only he would ‘mitigate this ignominious parsimony’.<sup>105</sup>

It is tempting to consider the treatment of Holyoake by the BAAS as based upon his reputation as a former radical atheist and in terms of a bias against the press outlets for which he was reporting. Yet at the BAAS Annual Meeting in 1867 in Dundee, Sir John Lubbock publicly praised Holyoake, who was present as a reporter. During a session at the meeting over which Lubbock presided, Lubbock thanked Holyoake for the services he had rendered freethought: ‘The baronet declared, that but for the labors of Mr Holyoake, it might not have been possible for them, the *savans*, to speak as freely as they do in these days’.<sup>106</sup> Returning the favor, Holyoake, reporting on the meeting for the *New York Tribune*, celebrated Tyndall’s ‘materialism’ and noted the consternation of the new chair of the BAAS, the Duke of Buccleugh, during Tyndall’s address.<sup>107</sup>

The relationships between Holyoake and the members of the Darwinian circle could also be quite personal and involved support during illness. In April 1875, Spencer asked for a copy of Holyoake’s *History of Cooperation*, offered his condolences to Holyoake for the latter’s (temporary) blindness, and promised to contribute to the fund established to support him during his indisposition.<sup>108</sup> In the same month, Tyndall also responded, writing to Evans Bell, who had established the fund:

Permit me to say that I have received with genuine sorrow the intelligence it conveyed of Mr Holyoake’s failing health. And allow me also to thank you for giving me the opportunity of showing, even in the smallest way here open to me, my appreciation of the character of one upon whose life is stamped, with singular distinctness, the image and superscription of ‘an honest man’.<sup>109</sup>

In November 1875, Huxley wrote to Holyoake, wishing him ‘with all my heart a speedy return to the visible world – which is on the whole a pleasant spectacle’. He also

104 See, for example, ‘Science – the British Association for the Advancement of Science’, *New York Tribune*, 27 September 1867, p. 2; ‘The priesthood of science: their visit to Norwich’, *Reasoner Review*, November 1868.

105 George Holyoake to Thomas Huxley, 21 June 1871, NCA.

106 Richard J. Hinton, *English Radical Leaders*, New York: G.P. Putnam’s sons, 1875, pp. 71–72.

107 ‘Science – the British Association for the Advancement of Science’, op. cit. (104).

108 Herbert Spencer to George Holyoake, 28 April 1875, NCA.

109 John Tyndall to Evans Bell, 15 April 1875, NCA.

contributed to the fund for the man, 'who has so long & so faithfully served the cause of Free thought'.<sup>110</sup>

As he often liked to remind readers and audiences, Holyoake had earlier paid a price for scepticism that the scientific naturalists and agnostics of the later part of the century would never have to pay. Holyoake had paved the way by fighting battles with the clergy, in the press and in lectures, long before Huxley took up this charge.<sup>111</sup> Yet he continued to engage in the ongoing fray, defending Huxley, Tyndall and others against their religious antagonists.<sup>112</sup> He served Huxley religiously when Huxley complained that controversy was 'hard upon a poor man who has retired to "make his sowl" as the Irish say, in the sea side hermitage'.<sup>113</sup> In a eulogy to Tyndall, Holyoake claimed that Tyndall had paid him what was perhaps the highest compliment that the scientific naturalists could have rendered him:

I remember meeting Tyndall one day in Dundee, when the British Association for the advancement of science met there. The Duke of Buccleugh was President. Narrow-minded, of little knowledge, and possessing a larger share than was due to him of Scottish intolerance, the Duke had a bad time in the chair while Tyndall was addressing the saints and philosophers assembled. When the meeting was over I said to Tyndall, 'It's very well for you, you have come to Dundee late; the Duke's ancestors would, and I think he would, treat you like a witch, and try the persecution of fire upon you.' 'Ah! Holyoake', he replied, 'it's very well you went before us. We do but gather where you have sown.'<sup>114</sup>

Tyndall was pointing to Holyoake's efforts in the freethought movement – his battles for free expression, his trial and imprisonment for blasphemy and, finally, his partial victories against religious prejudice – for making possible the open expression of naturalistic views. As we have seen, similar remarks were made publicly by John Lubbock at a meeting of the BAAS in 1867.

By the 1870s, gentlemen freethinkers no longer felt compelled to meet in secret clubs like Hunt's Confidential Combination. Instead, the liberal theologian Moncure Conway founded an 'Association of Liberal Thinkers' in June 1878, boasting of 'the first effort ever made to unite persons interested in the religious sentiment and the moral welfare of mankind on a plan absolutely free from considerations of dogma, race, names, or shibboleths'.<sup>115</sup> Holyoake might have found such a declaration galling, given his decades-long attempt to do the same with Secularism. The club's purpose was to bring together for candid discussion men of various political, theological and philosophical positions. Huxley was elected president, while Tyndall, Clifford, Kalisch and Holyoake were nominated vice presidents.<sup>116</sup> Darwin was invited to join, and although he sent a donation, 'ally himself publicly with organized freethought he would not'.<sup>117</sup> The

110 Thomas Huxley to George Holyoake, 2 November 1875, NCA.

111 Grant and Holyoake, op. cit. (79).

112 George Holyoake to Thomas Huxley, 20 April 1887, HP.

113 Thomas Huxley to George Holyoake, 31 March 1891, NCA.

114 George Jacob Holyoake, 'Characteristics of Prof. Tyndall', in *idem*, *John Tyndall Memorial*, Buffalo, NY: H.L. Green, 1894, p. 2.

115 Desmond, op. cit. (81), p. 501.

116 McCabe, op. cit. (2), vol. 2, p. 74.

117 Moore, op. cit. (17), pp. 303–304.

organization was short-lived, lasting a mere six months before collapsing for lack of a common mission. But Holyoake's inclusion and nomination shows the extent to which he had become acceptable in respectable circles. A similar club had met in 1873 and apparently for the same purpose. It included 'Catholics, High Churchmen, Broad Churchmen, Dissenters, Come-Outers, Infidels, Positivists, Materialists, Spiritualists, and Atheists'. Members included 'Dr [John Henry] Newman, Archbishop Manning, Dr Pusey, Mr Gladstone, Maurice, Huxley, Mill, Lewes, Bishop Wilberforce, and Mr Holyoake'. The question for discussion in one meeting was, 'Is There a God?'<sup>118</sup> In both societies, unbelief was now a question that could be vetted in polite company, and Holyoake was invited.

Holyoake's contribution to freethought and scientific naturalism would be incomplete without reference to the Rationalist Press Association (RPA), founded in 1899 by Charles Albert Watts, the son of Secularist Charles Watts. Despite serving as the chairman of the board of the RPA until his death in 1906, Holyoake's direct role in the organization was limited. But it begins with his association with the older Watts, and the latter's split with Bradlaugh after the Knowlton trial.<sup>119</sup> The younger Watts converted his antipathy for Bradlaugh and his experience as a printer and businessman into a publishing venture, the RPA.<sup>120</sup> Leaving the editorship of the *Secular Review* to William Stewart Ross in 1883 and taking charge of Watts & Company, Charles Albert Watts launched the *Agnostic Annual* in 1884.<sup>121</sup> The annual was modelled on the symposium format introduced in the *Nineteenth Century* by James Knowles seven years earlier. Like Knowles, the younger Watts sought to enlist prestigious writers. Watts secured the contributions of Francis Newman, Leslie Stephen, Edward Clodd, Ernst Haeckel and Thomas Huxley, among others.<sup>122</sup>

Bernard Lightman has treated this publishing venture and the popularizers who disseminated Darwinian ideas to the cloth-cap audience of 'new agnostics'. Recently, Bill Cooke has written a centenary history of the RPA, suggesting that Charles Albert Watts's business acumen and amicable personality enabled him to identify a new market niche that included both middle- and working-class readers and successfully target them with a new class of mass freethought publications that included contributions from eminent, respectable writers.<sup>123</sup> This publishing trajectory parallels that of the atheist Darwinian popularizers derived from the Bradlaugh wing, in particular Edward A. Aveling, the socialist who branded his form of Darwinism for the members of the National Secular Society through the Freethought Publishing

118 *Index* (1873) 4, p. 89.

119 See Jonathon Green and Nicholas J. Karolides, *Encyclopedia of Censorship*, New York: Fact On File, 2005, p. 186.

120 Lightman, 'Ideology', op. cit. (16), p. 286.

121 Bill Cooke, *The Gathering of Infidels: A Hundred Years of the Rationalist Press Association*, Amherst, NY: Prometheus Books, 2003, p. 14. The *Agnostic Annual* was to become the *RPA Annual*, the *Rationalist Annual*, and finally *Question*.

122 Laurel Brake and Marysa Demoor, *Dictionary of Nineteenth-Century Journalism*, Ghent: Academia Press and London: British Library, 2009, pp. 8–9; Cooke, op. cit. (121), p. 12.

123 Lightman, 'Ideology', op. cit. (16); *idem*, *Victorian Popularizers*, op. cit. (16), pp. 264–265; Cooke, op. cit. (121), pp. 5–29.

Company.<sup>124</sup> But the RPA, as Royle points out, was ‘the biggest breakthrough of all in freethought publishing’, a remarkably successful printing, publishing and propagandist venture that earned money and ‘secured the pens of the leading figures of the day, including T.H. Huxley’.<sup>125</sup>

The audience for the RPA grew from the wing of Secularism that Holyoake had founded and tended. It included a new class of educated workers who benefited from national education undertaken on a secular basis. The new liberalism had been born and Watts successfully identified and catered to the market. Watts eschewed not only the kind of bombast and negation expected from the National Secular Society but also the internecine squabbles characteristic of Secularism’s history.<sup>126</sup> Many of the RPA writers despised atheism more than they did theology, and valued religious sentiment as a part of human culture. Publications of the RPA mostly avoided radical politics as well. As Royle notes, ‘this was respectable freethought indeed, and the market was largely that toward which G.J. Holyoake had struggled, somewhat prematurely, in vain’.<sup>127</sup> According to Lightman, the RPA was one of the major means of delivering scientific naturalism and Darwinian evolution to mass audiences.

But what was the relationship between the RPA and the scientific naturalists? Although Spencer, Clifford and Huxley had works reprinted by the RPA, Huxley’s publication record with the RPA provides the most curious and illustrative example.<sup>128</sup> It begins with a case of apparent piracy by Watts,<sup>129</sup> and continues with the publication of Huxley’s later works with the approval of Huxley himself and, posthumously, with the approval of his son, Leonard, and his widow, Henrietta.<sup>130</sup>

In September 1883, Watts had written to Huxley to announce the forthcoming publication of his new *Agnostic Annual*, asking Huxley’s ‘advice and assistance because I am convinced that you are desirous of guiding and influencing the thought of the nation, to which you have already rendered such incalculable service’.<sup>131</sup> Misunderstanding or deliberately misrepresenting Huxley’s intentions, Watts took what Huxley had considered private correspondence and published it in the first edition of the first volume of the *Agnostic Annual*. Huxley complained bitterly to Watts in a series of letters, while also expressing his outrage in other correspondence and in letters to the press.<sup>132</sup> Worse yet, after the first edition of Volume 1 quickly sold out, Watts also

124 Paylor, op. cit. (16).

125 Royle, op. cit. (4), p. 165.

126 Lightman, ‘Ideology’, op. cit. (16); *idem*, *Victorian Popularizers*, op. cit. (16), pp. 264–265; Cooke, op. cit. (121), pp. 5–29.

127 Royle, op. cit. (4), p. 165.

128 For a list of RPA publications, including reprints and original publications, see Cooke, op. cit. (121), Appendix 1, pp. 305–317.

129 Desmond, op. cit. (81), p. 527.

130 Cooke, op. cit. (121), pp. 12–13, 38. Leonard Huxley was listed among the honorary associates of the RPA in the *Agnostic Annual and Ethical Review* (1907), p. 82.

131 Quoted in Cooke, op. cit. (121), p. 12.

132 In late 1883, Huxley wrote to Tyndall about Watts’s ‘impudence’ for ‘printing this without asking leave or sending a proof, but paraded me as a “contributor”’. Thomas Huxley to John Tyndall, 25 November 1883, Tyndall Papers; Lightman, *Victorian Popularizers*, op. cit. (16), p. 264.

published the series of letters between himself and Huxley in the second edition of Volume 1, in an attempt to vindicate himself and the RPA.<sup>133</sup> But, in 1892, Huxley entrusted Watts with his “Possibilities and impossibilities” for the 1892 volume of the annual,<sup>134</sup> and, in 1902, Leonard Huxley successfully lobbied the Macmillan publishing house, who had rights in Huxley’s *Lectures and Essays*, to grant the RPA permission to reprint the collection. By 1905, the RPA reprint had run to twenty editions and sold 750,000 copies, making it one of the RPA’s most successful publications.<sup>135</sup>

Adrian Desmond suggests that the pioneering young Watts exploited Huxley’s coinage for his new *Agnostic Annual* in order ‘to trade on agnosticism’s respectability’ and its promise of ‘intellectual upward mobility’, and that ‘Huxley lost control [of the word ‘agnostic’] as the monthly *Agnostic* in 1885 preceded a spate of books capitalizing on the need for agnostic texts’.<sup>136</sup> Yet, as Cooke points out, this interpretation leaves unexplained Huxley’s later, voluntary involvement with the RPA, as well as that of his son and widow.<sup>137</sup>

The apparent contradiction may be explained partly in terms of the RPA’s differentiation from the Bradlaugh camp. After all, Huxley would never have agreed, under any conditions, to put his name on a Freethought Publishing Company text. Any prejudice that Huxley might have held with reference to the RPA would have been exacerbated by the initial publication debacle. Yet Watts was later able to rescue his relationship with Huxley, to secure his work and forge connections with his son and widow. Leonard Huxley even became an honorary associate of the RPA beginning in 1902.<sup>138</sup> Thus it appears that Thomas Huxley’s inclination was to work with the RPA.

In May of 1884, Huxley wrote to Holyoake on the Watts episode, referring specifically to Watts’s use of his private correspondence:

Many thanks for your note & enclosure. I was very wroth with Mr Watts at the issue . . . I wish every one had given as complete a refutation to the . . . doctrine that freethinkers [can] ‘make free’ in their ways . . . as per always [you] have my word indeed.<sup>139</sup>

Although the enclosure is missing from the record, Holyoake’s habit had been to include clippings of articles in which he had supported the scientific naturalists in the press.<sup>140</sup>

133 Cooke, op. cit. (121), pp. 12–13.

134 T.H. Huxley, ‘Possibilities and impossibilities’, *Agnostic Annual* (1892), pp. 3–10. J. Vernon Jensen, *Thomas Henry Huxley: Communicating for Science*, Newark: University of Delaware Press, 1991, p. 122, suggests that Huxley voluntarily published the essay in the *Agnostic Annual*.

135 Royle, op. cit. (4), p. 166. Bill Cooke, op. cit. (121), p. 38, argues that ‘Leonard Huxley’s willingness to ensure his father’s work was reprinted by the RPA is further evidence that his father had relented of his early low opinion of Watts’.

136 Desmond, op. cit. (81), pp. 527–528.

137 Cooke, op. cit. (121), pp. 12–13, 38.

138 Desmond, op. cit. (81), p. 580; Cooke, op. cit. (121), Appendix 2, p. 318.

139 Thomas Huxley to George Holyoake, 9 May 1884, NCA.

140 Thomas Huxley to George Holyoake, 2 April 1873, NCA; George Holyoake to Thomas Huxley, 20 April 1887, HP; Thomas Huxley to George Holyoake, 26 April 1887; John Tyndall to George Holyoake, 16 November 1876; John Tyndall to George Holyoake, 21 July 1877, NCA; Herbert Spencer to George Holyoake, 14 July 1879, NCA.

Likewise, it is apparent that Huxley was congratulating Holyoake on his 'refutation' of the 'doctrine' of making free with others' words. Watts's ability to secure Huxley's later work was due, in part, to the confidence that Holyoake's nominal involvement in the RPA provided.

## Conclusion

Adrian Desmond has shown the importance of artisan radicals for the spread of Lamarckian determinism from the 1840s, while Bernard Lightman and Suzanne Paylor have treated the popularization of Darwinian ideas in the 'new agnosticism' and the Bradlaughian atheistic Secularist camp, respectively, from the 1880s. But little attention had been paid to mid-century Secularism in the context of scientific naturalism. This essay has focused on publications that contributed to the Secularism founded by George Holyoake as well as correspondence linking it to the scientific naturalists. This material bears evidence of the importance of freethought radicalism to the emergence of the powerful discourse of scientific naturalism in the second half of the century. It is apparent that with mid-century Secularism, a cultural and intellectual work was done that contributed significantly to what Moore has called the new 'creed' of scientific naturalism. Secularism solved many of the problems posed by and for freethought radicalism itself, such as the desideratum to conduct free and open inquiry and expression without abdication to religious authority and unhampered by the legal and customary threats encountered in a theocracy. In periodicals, pamphlets, lectures and organizational work, Holyoake modified freethought by pruning its atheistic rhetoric, allowing freethinkers to discount the supernatural and to disavow the clergy in matters relating to knowledge and morals, without the expected bombast and negation. By excluding questions of belief from those of positive knowledge, Secularism provided a precursor for solving the problem of the science-religion conflict, paving the way for a partial détente between belief and unbelief that would be characteristic of agnosticism as a disposition of the later scientific naturalism. Secularism's contribution of an early form of agnosticism, I have suggested, did much to advance the world view developed and promulgated by Huxley and Tyndall.

The connection between artisan Secularism and scientific naturalism sheds light on the class character and origins of scientific naturalism itself. The scientific naturalists, it should be recalled, were young men during the 1840s. Both Tyndall and Huxley hailed from lower-middle-class backgrounds. Tyndall went to mechanics' institutes regularly. Holyoake was read by an audience of sophisticated working-class and lower-middle-class readers, a group to which Tyndall, Huxley and even Spencer belonged in the 1840s, before they rose to prominence. Secularism and pre-Secularism doubtless would have been familiar to them, especially to Huxley as he became part of the *Westminster* coterie at 142 Strand and the *Westminster* reported on Secularism in its pages. More work remains to be done, however, on the periodical reading diets of the scientific naturalists as they formulated their world view and gauged the temperature for its pronouncement.

Much work also remains to be done on the changing meanings and uses of science in the freethought movement, from Richard Carlile's *Address to Men of Science* in 1821, through the mobilization of Lamarckian transmutation theory in the 1840s, to the uptake of Darwinism from the 1880s. This essay should be considered an instalment in that much broader history, a history that gains in importance given the significance of Secularism to the rise of scientific naturalism.