

## The International Scientific Series and the Communication of Darwinism\*

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### **Abstract:**

In this paper I examine whether or not the International Scientific Series (ISS) disseminated Darwinian views of the relationship between science and religion throughout its existence as a unique experiment in publishing. Initially, the key players were Thomas Henry Huxley, John Tyndall, Herbert Spencer, and Edward Youmans, all evolutionary naturalists, and they shared a complex perspective on the relationship between science and religion. Although the ISS began as a publishing project devoted to the dissemination of evolutionary naturalism, I will argue that by the early 1880's a new course had been set when the original founders of the series were no longer in control.

**Key Words:** Darwinism, evolutionary naturalism, International Scientific Series

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## 1. INTRODUCTION

Over three decades ago, historians gauged Darwin's impact on the relationship between science and religion by pointing to the popularity of John William Draper's *History of the Conflict Between Religion and Science* (1874). In his book, Draper, president of the medical school and professor of chemistry at New York University, insisted that science and religion were on a collision course that would profoundly affect the modern world. "The history of Science," he declared, "is not a mere record of related discoveries; it is a narrative of the conflict of two contending powers, the expansive force of the human intellect on one side, and the compression arising from traditionary faith and human interests on the other." The growing divergence between faith, "in its nature unchangeable, stationary," and science, which was "in its nature progressive," was "the most important of all living issues." Draper believed that it wasn't too late for Protestant Christianity to change course and reconcile itself to Science. But the more dogmatic Roman Catholic Church, he insisted, had "insuperable obstacles in the way." Indeed, in the wake of the Syllabus of Errors (1864) and the proclamation in 1870 of the infallibility of the Pope, Roman Catholicism became the focus of Draper's criticism. According to Draper, the Syllabus of Errors had rejected evolution by "bluntly insisting that the Church believes in distinct creative acts," rather than embracing the reign of law at the heart of modern science.<sup>1</sup>

Before he wrote his *History of the Conflict Between Science and Religion*, Draper was involved in an important episode in the history of the relationship between evolution and Christianity. Draper gave a paper on Darwin and the intellectual development of Europe at the famous "showdown" between Thomas Henry Huxley and Bishop Samuel Wilberforce at Oxford University during the annual British Association meeting in 1860. Just as the Huxley-Wilberforce debate has in the past been used to support the idea that science and religion are inevitably opposed, so has Draper's book. In his classic study of the reaction of Anglo-American Protestant theologians to come to terms with evolution from 1870 to 1900, titled The Post-Darwinian Controversies (1979), James Moore points to Draper's book as one of the first to present the "military metaphor," or the idea that science and religion are at war.<sup>2</sup> Since then, the military metaphor has been used extensively to describe the relationship between science and religion, though Moore's book marked the beginning of a rejection of it by scholars. It is important to recall that Draper's book was number twelve of the International Scientific Series (ISS), an ambitious project initiated in 1871 to disseminate scientific knowledge to a global audience. Selling close to 20,000 copies, Draper's *History of the Conflict Between Science and*

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<sup>1</sup> John William Draper, *History of the Conflict Between Religion and Science* (New York: D. Appleton & Co., 1876), vi-vii, 247, 358, 362-364.

<sup>2</sup> James R. Moore, *The Post-Darwinian Controversies* (Cambridge: Cambridge University Press), 20-29.

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*Religion* was among the most successful of the books published in the ISS. It went through twelve editions in English and was translated into French and German.<sup>3</sup>

Looking at Draper's book as an integral part of the ISS raises an interesting question. Did Draper's book encapsulate the aim of the entire ISS on the subject of the implications of evolution for understanding the true relationship between science and religion? To answer that question we would need to find out who the key players were in the creation of the ISS, examine their position vis a vis evolution and religion, and to determine whether or not their views were embedded in the books published in the series from beginning to end. Initially, the key players were Thomas Henry Huxley, John Tyndall, Herbert Spencer, and Edward Youmans, all evolutionary naturalists, and they shared a complex perspective on the relationship between science and religion with some similarities to Draper's. Although the ISS began as a publishing project devoted to the dissemination of evolutionary naturalism, I will argue that by the early 1880's a new course had been set when the original founders of the series were no longer in control. Since the ISS existed until 1911, the evolutionary naturalists dominated only the first ten of its forty-year life span. Previous scholarship on the ISS neither takes this point sufficiently into account; nor does it attempt to evaluate the role of the ISS in the dissemination of the military metaphor. Roy MacLeod gives no indication that a change in direction took place. He asserts that during the 1880's the series increasingly devoted itself to exploring the implications to be drawn from Darwinian biological theory and that it "illuminated this sense of a unified, comprehensive evolutionary dynamic." Disagreeing with MacLeod, Howsam demonstrates that the ISS was not as stable throughout its life span as it appeared to its readers. She points out that some books published near the end of the century contained loose definitions of science that the original founders would have rejected. But she places the shift in direction in the 1890's and does not attribute it to Charles Kegan Paul.<sup>4</sup>

## 2. SETTING UP A NEW PUBLISHING EXPERIMENT

The International Scientific Series was one of the most famous of all Victorian attempts to codify and popularize scientific knowledge in a systematic fashion to a wide reading public across national boundaries. Published over the course of four decades, it included ninety-eight books, some published in five languages. Six publishers from six countries were involved and contributors were recruited from Britain, North America, and continental Europe. The ISS was the product of the entrepreneurial vision of Edward Livingstone Youmans, who was on the staff of the New York publishing firm of D. Appleton and Company. Youmans was also one of Herbert Spencer's American disciples. In 1860, after reading the prospectus for Spencer's multi-volumed *Synthetic Philosophy*, a monumental attempt to synthesize all knowledge into an

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<sup>3</sup> Roy M. MacLeod, "Evolutionism, Internationalism and Commercial Enterprise in Science: The International Scientific Series 1871-1910," in *Development of Science Publishing in Europe*, Ed. A. J. Meadows (Amsterdam, New York, Oxford: Elsevier Science, Publishers, 1980), 74.

<sup>4</sup> *Ibid.*, 76; Leslie Howsam, "An Experiment with Science for the Nineteenth-Century Book Trade: The International Scientific Series," *British Journal for the History of Science* 33 (2000), 206.

evolutionary system, Youmans offered to become Spencer's American agent. He met Spencer in London in 1861 and upon returning to New York began to proselytize in America for the grand Spencerian concept of evolutionary development.<sup>5</sup>

The idea for the ISS was based on diffusing Spencerian evolution beyond America to the world at large. In 1870 Youmans proposed to Appleton the idea of launching a new "International Scientific Library" for the general reader composed of the finest work of the most important, current scientific thinkers. To attract eminent scientists, Youmans dreamed of recruiting publishers in several different countries to participate in a scheme that would counter the absence of legislated international copyright agreements. All authors would receive a fixed percentage royalty on their books and would receive that royalty in every country in which their books were sold. Youmans sailed to England in June 1871 determined to put this ambitious plan in place. After Youmans talked to Spencer about the project, the latter wrote on July 4<sup>th</sup>, "I am anxious to do all that is possible to extend and establish the arrangement you are making with English authors—arrangements which practically amount to international copyright."<sup>6</sup> Huxley, Tyndall, and Darwin also wrote letters of support.<sup>7</sup> In August, Youmans went to the British Association for the Advancement of Science meeting in Edinburgh to enlist potential contributors to the series. Spencer accompanied Youmans, and introduced him to important men of science.<sup>8</sup> A meeting organized to discuss the project was attended by Spencer, Huxley, Joseph Dalton Hooker, W. B. Carpenter, W. K. Clifford, Balfour Stewart, and Alexander Bain. Here it was decided that Huxley, Tyndall and Spencer would form an advisory committee that would consult with the London publisher.

After the Edinburgh meeting, Youmans went to London where he began negotiations with Henry S. King to undertake the role of publisher for the British component of the project. King, formerly a banker and East India agent, had recently set up a publishing firm and was developing an impressive list of books, both fiction and non-fiction.<sup>9</sup> By October an agreement had been reached, and Youmans was now confident that his dream would become a reality. He estimated that in five years there would be seventy-five to one hundred volumes and that the ISS would be "the world's popular cyclopaedia of reading science." Spencer, he wrote to his sister, was delighted but "half bewildered; every once in a while he breaks out, 'Who would have thought such a result would arrive from your first beginnings with me?'"<sup>10</sup>

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<sup>5</sup> MacLeod, "Evolutionism, Internationalism and Commercial Enterprise in Science," 65-66; Howsam, "An Experiment with Science for the Nineteenth-Century Book Trade," 193.

<sup>6</sup> John Fiske, *Edward Livingston Youmans: Interpreter of Science for the People* (New York: Appleton and Company, 1894), 273.

<sup>7</sup> *Ibid.*, 274; Howsam, "An Experiment with Science for the Nineteenth-Century Book Trade," 195.

<sup>8</sup> Fiske, *Edward Livingston Youmans*, 278.

<sup>9</sup> Howsam, "An Experiment with Science for the Nineteenth-Century Book Trade," 196.

<sup>10</sup> Fiske, *Edward Livingston Youmans*, 285.

Youmans' next task was to find a French and a German publisher to join Appleton and King. In November, Spencer and Youmans went to Paris, and persuaded Henri Paul Baillière to participate in the scheme. From there, Youmans traveled to Berlin, but without Spencer. Youmans found it more difficult to locate a German publisher interested in the project. He was shocked to discover that in Germany no one had heard of Spencer. Moreover, German scientists seemed to find popular science contemptible.<sup>11</sup> But Youmans persisted, traveling to Leipzig. Here he found Brockhaus, who agreed in December to take the series. Youmans wrote to his sister, "it was Huxley's name which carried the thing." Though Huxley's reputation in Germany had served him well, Youmans was more interested in how he could facilitate the introduction of Spencer's ideas to German scientists and reading audiences. "Spencer will in time reap his greatest conquest in Germany," he told his sister. "The whole nation is pervaded with religious skepticism, and they are without any philosophic guidance."<sup>12</sup> His business in Germany concluded, Youmans went back to London, where, in mid-December, he dined with Spencer, Tyndall, and Huxley. Youmans wrote to his sister that the three would "make a pretty good committee" and that they agreed, "we have a great thing in prospect and well under way...which can hardly fail to result in large advantages to many authors and to the public also."<sup>13</sup>

Youmans and his British friends had good reason to be satisfied. During Youmans' trip he had arranged a scheme that involved publishers from New York, London, Paris, and Leipzig. Before he returned home he had also opened up negotiations that would extend his plan to Milan (Dumolard Fratelli) and St. Petersburg (Znanie). Of course the plan had limitations. Drawing on publishers from America, Britain, and Europe (Russia's role was marginal), it was based primarily in the West. Each publisher operated in a semi-autonomous fashion, keeping independent accounts and deciding whether or not to translate a book accepted into the series by another participating publishing house. But the provision that made international distribution possible, and that practically amounted to international copyright, was unique. This arrangement created new links between publishers. From Youmans' point of view, it established pathways that could potentially be used to increase the circulation of evolutionary ideas from one country to another.

### 3. THE BRITISH COMMITTEE AND EVOLUTIONARY NATURALISM

The British Committee, composed of Huxley, Tyndall, and Spencer, played a key role in the early years of the ISS. At the meeting in mid-December 1871, it was agreed that Huxley and Tyndall would give Youmans and King their opinion on the suitability of potential authors for the series on the condition that it would not take up significant amounts of their time. Spencer

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<sup>11</sup> MacLeod, "Evolutionism, Internationalism and Commercial Enterprise in Science," 69.

<sup>12</sup> Fiske, *Edward Livingston Youmans*, 290.

<sup>13</sup> *Ibid.*, 293.

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was to take on the more onerous responsibility of providing editorial guidance.<sup>14</sup> Initially, as members of the British Committee, Huxley, Tyndall, and Spencer had the power to exercise a fair degree of control over what was published in the British component of the ISS. Since King was involved in the majority of the publications that appeared in the first five years of the entire series, the London triumvirate was more important in determining the overall shape of the ISS than the committees in other countries. Out of the twenty-five books appearing in the series around the world from 1872-1876, King published twenty-two of them. Only eight of the twenty-five originated in France, Germany or Italy.<sup>15</sup>

Huxley, Tyndall, and Spencer were part of a group of reform-minded men who arrived on the British scientific scene in the middle of the nineteenth century. Referred to as “evolutionary” or “scientific naturalists” by scholars, these men put forward new interpretations of nature, society, and humanity derived from the theories, methods, and categories of empirical science. Evolutionary naturalists were naturalistic in the sense that they ruled out recourse to causes not present in empirically observed nature, and they were evolutionary in that they interpreted nature in accordance with Darwinian principles. Since they defended Darwin when his *Origin of Species* first appeared in 1859, they are sometimes labeled the “Darwinians.” The scientists who were part of the group aimed to secularize nature and professionalize science. Any attempts to achieve those goals brought them into conflict with the Anglican clergy and the older generation of scientists committed to conceiving of science as based on natural theology.

Huxley, Tyndall, and Spencer, as well as many of their fellow evolutionary naturalists, approached the issue of the relationship between science and religion with great care. They wished to avoid the charge of atheism since it was associated with working class unbelief. They sought the respectability required to maintain their position as members of the intellectual elite. Huxley’s coinage of the term “agnosticism” in 1869 was representative of the attempt by evolutionary naturalists to distance themselves from forms of unbelief considered to be morally disreputable. Instead of arguing that there was an inevitable conflict between science and religion, they maintained that the two had to be conceived of as possessing authority in completely separate domains. While religion belonged to the realm of feeling, science was a part of the world of intellect. If thought of in this way, Huxley and his friends believed, science and religion could never come into conflict because each realm was distinct and without authority outside its proper sphere of interest. Conflict only arose when theology was confused with religion. Theology operated in the scientific world of intellect because it claimed to embody feelings in concrete facts. Not only was theology subject to the authority of science, but the progressive undermining of theology by science outlined by Draper did not lead to the destruction of true religion. Huxley asserted that “the antagonism between science and religion

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<sup>14</sup> MacLeod, “Evolutionism, Internationalism and Commercial Enterprise in Science,” 70.

<sup>15</sup> The dominance of Britain continued beyond the first five years. The English part of the Series included 56 works that first appeared in London, 11 that first appeared in New York, 19 translated from the French, 11 from the German, and six from the Italian.

about which we hear so much, appears to me to be purely factitious—fabricated, on the one hand, by short-sighted religious people who confound a certain branch of science, theology, with religion; and, on the other, by equally short-sighted scientific people who forget that science takes its province only that which is susceptible of clear intellectual comprehension.”<sup>16</sup> The advantage of adopting this position was obvious. Huxley and his allies could attack theology—especially natural theology—as unscientific while maintaining that they did not intend to undercut authentic religion.

Unsurprisingly, one of the main reasons that the members of the British Committee became involved in the ISS project was to spread the ideals of evolutionary naturalism. The books selected for inclusion in the series in the early years were in line with those ideals. The very first book in the series, *The Forms of Water in Clouds and Rivers, Ice and Glaciers* (1872), was written by Tyndall, one of the members of the Committee. Though the title seems innocent enough, and though the target audience was primarily young readers, Tyndall appealed to the principles of evolutionary naturalism throughout the book. He started off with a discussion of the importance of the concept of cause and effect. “Every occurrence in Nature is preceded by other occurrences which are its causes,” Tyndall wrote, “and succeeded by others which are its effects. The human mind is not satisfied with observing and studying any natural occurrence alone, but takes pleasure in connecting every natural fact with what has gone before it, and what is to come after it.” Therefore, when studying rivers and glaciers, their causes and effects had to be taken into account. Tyndall then traces a river to its source, moving from mountain streams to rain, to clouds, and then, finally to the sun. This lesson in following out the chain of cause and effect is intended to emphasize that what we call Nature is composed of “interdependent” parts. But it also demonstrates that a satisfactory scientific explanation does not need to include supernatural causes.<sup>17</sup>

Tyndall’s presents a bolder critique of natural theology later in the book in a discussion of Count Rumford and his views on the properties of water. Rumford, a figure from the early nineteenth century, claimed that water was divinely designed so that it ceases to contract below a certain temperature. If it were any other way, Rumford argues, every living thing in a lake would be destroyed when cold enough temperatures were reached. Tyndall objected to Rumford’s “very harsh words” for those who did not share his views. Rumford referred to them as “hardened and degraded.” Moreover, Tyndall pointed out, water was not a solitary exception to an otherwise general law. Other molecules required more room in their solid crystalline condition than in their adjacent molten condition. In an agnostic mode, Tyndall acknowledged that there was an “inscrutable Power,” but he insisted that we could not know its

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<sup>16</sup> [T.H. Huxley], “Science and Religion,” *The Builder* 18 (1859), 35; Thomas H. Huxley, *Science and Hebrew Tradition* (London: Macmillan and Co., 1893), 160-161; Bernard Lightman, *The Origins of Agnosticism: Victorian Unbelief and the Limits of Knowledge* (Baltimore and London: Johns Hopkins University Press, 1987), 131-132.

<sup>17</sup> John Tyndall, *The Forms of Water in Clouds and Rivers, Ice and Glaciers* (New York: D. Appleton and Company, 1872), 1-3, 6, 14.

intentions. Tyndall charged that it was in fact natural theologians who were “degraded,” not to mention presumptuous, as they placed “upon the throne of the universe a magnified image of themselves, and make its doings a more colossal imitation of their own.” In accusing natural theologians of idolatry, and endorsing an account of nature limited to natural causes and effects, Tyndall conveyed the basic principles of evolutionary naturalism to his young audience. Tyndall’s book eventually sold a total of 14,750 copies.<sup>18</sup>

Walter Bagehot penned *Physics and Politics* (1872), the second volume in the series. A journalist, and then editor of the *Economist*, Bagehot applied the concept of natural selection to politics. He argued that there were two stages in the evolutionary development of civilization. In the first stage, when civilization first arose, it was necessary for humans to learn obedience. Permanence and fixity were required ingredients for establishing civilization. The Church played a crucial role in working together with the State to create “a cake of custom” that forbid free thought. By contrast, in the second stage allowing for variation was crucial. Free discussion was a necessary condition for breaking through the thick crust of custom. It led to tolerance, originality, and progress. Bagehot contrasted current examples of stagnant civilizations, such as India, to progressive, changeable civilizations (which were mostly western), such as Britain. Since he viewed science as providing vital criticism of religion without destroying what was really valuable, it was a key to progress. He pointed out that “at first some objection was raised to the principle of ‘natural selection’ in physical science upon religious grounds; it was expected that so active an idea and so large a shifting of thought would seem to imperil much which men valued.” But, according to Bagehot, this objection was disappearing and “the new principle is more and more seen to be fatal to mere outworks of religion, not to religion itself.”<sup>19</sup> Though he was not a part of the circle of evolutionary naturalists, Bagehot espoused a similar position. His book sold 12,500 copies in 1872.<sup>20</sup>

Spencer’s *The Study of Sociology*, published in 1873, was the fifth book in the series. Like Bagehot, Spencer aimed to apply evolutionary ideas to the human world. In his book he laid out a framework for examining the “growth, development, structure, and functions of the social aggregate.” He asserted that the study of sociology is “the study of Evolution in its most complex form.” Like Tyndall, Spencer insisted that the true scientist limited their study to natural causes and effects. “There can be no complete acceptance of Sociology as a science,” he declared, “so long as the belief in a social order not conforming to natural law, survives.” Spencer was critical of those who based their explanation of social phenomena on the idea of divine government. In ascribing all things to God, these individuals had a “mental attitude” that precluded sociology. But like Bagehot, he wanted to assure his audience that they had

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<sup>18</sup> Howsam, “An Experiment with Science for the Nineteenth-Century Book Trade,” 198.

<sup>19</sup> Walter Bagehot, *PHYSICS AND POLITICS; OR, THOUGHTS ON THE APPLICATION OF THE PRINCIPLES OF “NATURAL SELECTION” AND “INHERITANCE” TO POLITICAL SOCIETY* (New York: D. Appleton and Company, 1873), 26-27, 49, 61, 65, 157-158, 160, 161, 164-165.

<sup>20</sup> Howsam, “An Experiment with Science for the Nineteenth-Century Book Trade,” 198.



nothing to fear from the “theological thaw going on so fast.” Sloughing off discredited theological ideas was a sign of evolutionary progress. “Like the transformations that have succeeded one another hitherto,” he wrote, “the transformation now in progress is but an advance from a lower form, no longer fit to a higher and fitter form; and neither will this transformation, nor kindred transformations to come hereafter, destroy that which is transformed, any more than past transformations have destroyed it.”<sup>21</sup> The sales for Spencer’s book, 26,330 copies in Britain alone, were the series record.<sup>22</sup> By 1914 the French translation had gone through fourteen editions, making it the most popular foreign work in the French series.<sup>23</sup>

Besides the volumes by Tyndall, Bagehot, and Spencer, as well as Huxley’s *The Crayfish* (1880), over the first ten years of the existence of the ISS a number of books appeared that were written by figures associated with evolutionary naturalism or that dealt with evolutionary themes. This would include Alexander Bain’s *Mind and Body* (1873), Henry Maudsley’s *Responsibility in Mental Disease* (1874), Oscar Schmidt’s *The Doctrine of Descent and Darwinism* (1875), Norman Lockyer’s *Studies in Spectrum Analysis* (1878), J. L. A. Quatrefages de Breau’s *The Human Species* (1879), H. Charlton Bastian’s *The Brain as an Organ of Mind* (1880), Charles Darwin’s *The Formation of Vegetable Moulds* (1882), John Lubbock’s *Ants, Bees, and Wasps* (1882), and George Romanes’ *Animal Intelligence* (1882). The trio who composed the British Committee ensured that the agenda of evolutionary naturalism was well represented in the volumes published in the ISS over the course of the first ten years.

#### 4. CHARLES KEGAN PAUL AND THE BRITISH COMMITTEE

During the late 1870’s the active involvement of both King and Youmans in the ISS came to an end, resulting in a challenge to the authority of the British Committee. King became seriously ill, and sold his business in October of 1877. He died the following year. Youmans, whose health was also failing, was obliged to release the vital organizational work of the series to others. By 1880 he was no longer the driving force behind the ISS.<sup>24</sup> Charles Kegan Paul, who had been manager and publisher’s reader for several years at H. S. King and Company, purchased it from King. Although King and the British Committee had clashed on occasion, he had no strong objections to evolutionary naturalism. But Paul was another matter. Paul had been an Anglican minister and a master at Eton. Educated in the classics, he had little knowledge of science and not much sympathy for it. He was a Broad Churchman, but then abandoned his living in 1874 since he no longer could adhere to the teachings of the Church of England. Attracted to the ritual, he associated himself with Positivism. But in 1888 he began

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<sup>21</sup> Herbert Spencer, *The Study of Sociology*, 3<sup>rd</sup> edn (London: Henry S. King & Co., 1874), 30, 53, 313, 385, 394.

<sup>22</sup> Howsam, “An Experiment with Science for the Nineteenth-Century Book Trade,” 198.

<sup>23</sup> MacLeod, “Evolutionism, Internationalism and Commercial Enterprise in Science,” 73.

<sup>24</sup> *Ibid.*, 75.

to attend mass frequently and in 1890 he converted to Catholicism. Paul later claimed, even when he was a Positivist, he never lost his faith in a divine being.<sup>25</sup> When Paul took over the publishing house in 1877 he did not feel bound by the contract that Tyndall, Spencer, and Huxley had signed with King that required the publisher to consult with the British Committee before accepting a book into the series. In his *Memories*, Paul asserted that the series should have been placed from the start “in the hands of some responsible man of science.” Although he did not criticize Huxley, Spencer, and Tyndall, he raised questions about the role of the British Committee and insisted, “the real editorship remained then, as it always has remained since, with the publishers, and with them alone.”<sup>26</sup>

Denying the members of the Committee their traditional input in decisions about which books to include in the series could only lead to a showdown with Huxley, who continued to take an interest in the project. On January 20<sup>th</sup>, 1883, Paul sent Huxley seven new volumes for the series. Two days later Huxley wrote to Paul, saying that he was unaware that any of the volumes had been accepted. He demanded an explanation as to how it had come to pass that volumes had been included in the series without any consultation with the Committee.<sup>27</sup> Paul replied on January 26<sup>th</sup>, and offered a “short recapitulation of the facts.” Up to 1876 Spencer had represented the committee and was in frequent communication with King in regard to books to be admitted into the series. But in 1876, according to Paul, Spencer said he had done enough. Paul reminded Huxley of a long conversation in which Huxley had agreed, “the Publishers should take upon themselves a larger share of responsibility for the arrangement of the Series, but that they should consult you at any time when they felt any difficulty whatever.”<sup>28</sup> On March 3<sup>rd</sup> Huxley wrote to Paul, and withdrew from the editorship since, in his opinion, the reasons for which the position had been undertaken no longer seemed to exist.<sup>29</sup>

After Huxley left, the British component of the series, guided by Paul, took a different direction and no longer acted as a forum for the dissemination of evolutionary naturalism. Take, for example, George Henslow’s *The Origin of Floral Structures*, which was published as volume

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<sup>25</sup> C. Kegan Paul, *Memories* (London: Kegan Paul, Trench, Trübner & Co., 1899), 318. In his *Memories*, Paul explicitly raised the issue of how he dealt with books that were irreligious, including those proposed for the ISS. His partner at the publishing house, Alfred Trench was the seventh son of the liberal Anglican R. C. Trench, Archbishop of Dublin. When controversial works were submitted Paul used criteria articulated by Archbishop Trench as a guide to making a decision. Trench believed that when religious questions were treated “in a reverent and serious spirit we should by no means refuse to publish works of a free-thinking or agnostic type; but that we should sternly reject any that were merely flippant and written for the sake of destruction. On this advice we always acted, sometimes to the great indignation of persons who wished us to publish anti-Christian books...” *Ibid.*, 291.

<sup>26</sup> *Ibid.*, 281-282.

<sup>27</sup> Imperial College, Huxley Collection 24.76, 24.77.

<sup>28</sup> *Ibid.*, 24.78. Paul did not mention that Tyndall had withdrawn from the Committee at some point and had returned the one hundred pound retaining fee to the publisher.

<sup>29</sup> *Ibid.*, 24.81.

62 in the series in 1888, five years after Huxley's resignation from the Committee. Henslow was the son of John Stevens Henslow, Darwin's mentor at Cambridge, and, since 1880, Professor of Botany at the Royal Horticultural Society. Although the younger Henslow was on friendly terms with Darwin, he became more and more uncomfortable with the theory of natural selection and he embraced an updated version of natural theology. In his book for the ISS, Henslow recounted the development of his opinions. He recalled the difficulties he felt in accepting natural selection as the real origin of species and the deep reservations he had about "the idea that all those wonderful and 'purposeful' structures which Paley thought could only have been 'designed,' could be the ultimate result of any number of accidental and apparently at first 'purposeless' variations."<sup>30</sup> Since the publication of the *Origin of Species*, Henslow had put more emphasis on the effect of the environment.<sup>31</sup> Huxley would have been unhappy with other books published in the series while Paul was in command. From his point of view, books such as Hutcheson Posnett's *Comparative Literature* (1886) and Leone Levi's *International Law* (1887) would have seemed to be on unscientific topics. Huxley would have also been critical of Binet and Féré's *Animal Magnetism* (1887) and Ralph Vincent's *The Elements of Hypnotism* (1897).

But the first five years of the British series, when Huxley, Spencer, and Tyndall were most active, were its most productive. After they were no longer involved, the introduction of new titles faltered and declined.<sup>32</sup> If we examine the meaning of each of the terms in the title of the series, it becomes clear that it was a far more complex project than scholars have previously acknowledged.<sup>33</sup> It was international because it involved publishers and contributors from Britain, continental Europe, North America, and Russia, and also because some books were translated into four or five languages. But it was limited primarily to the west and was dominated, initially, by Anglo-American figures such as Youmans, Huxley, Tyndall, and Spencer. It was scientific, but from the point of view of the British Committee the meaning of "science" was defined in accordance with their evolutionary naturalism. Books dealt not only with the physical and life sciences—they also applied evolutionary concepts to the human sciences. Though it was referred to as a "series," even in one of its components, the British, the books that appeared over the years did not present a unified position on the relationship between science and religion.

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<sup>30</sup> George Henslow, *The Origin of Floral Structures Through Insect and Other Agencies* (New York: D. Appleton and Company, 1888), vi.

<sup>31</sup> Bernard Lightman, *Victorian Popularizers of Science: Designing Nature for New Audiences* (Chicago: University of Chicago Press, 2007), 87-94.

<sup>32</sup> Howsam, "An Experiment with Science for the Nineteenth-Century Book Trade," 198; MacLeod, "Evolutionism, Internationalism and Commercial Enterprise in Science," 77.

<sup>33</sup> Howsam also breaks down the title of the series but to make a point about how the ISS must be studied from the point of view of the history of the book. See Howsam, "An Experiment with Science for the Nineteenth-Century Book Trade," 193.

Throughout the course of its existence as a unique experiment in publishing, the role of the publishers loomed large although eminent scientists, such as Huxley, Tyndall, and Spencer, were members of the British editorial committee. The ISS began as vehicle for disseminating Spencerian perspectives due to Youmans. He dreamed of bringing the evolutionary philosophy of his hero to the world. But when Kegan Paul gained control of the British component of the series, he steered it away from its earlier emphasis on evolutionary naturalism, despite Huxley's protests. Youmans' original dream achieved limited success, and the influence of Huxley and his friends did not extend beyond the first ten years of the life of the series.