

Book review: *Physics and Psychics: The Occult and the Sciences in Modern Britain*, by Richard Noakes

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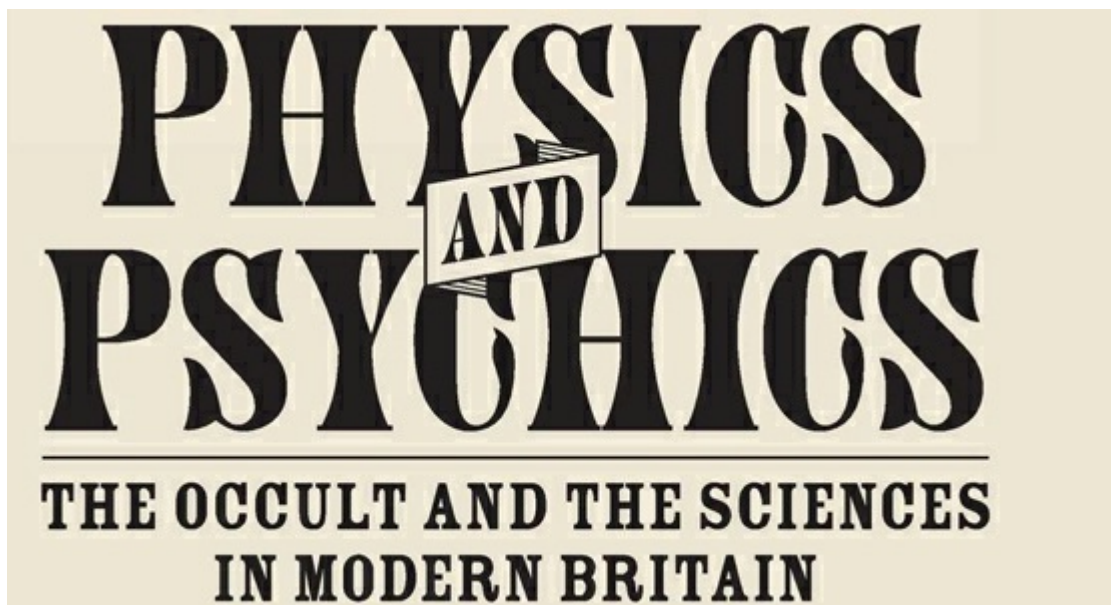
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Review: *Physics and Psychics: The Occult and the Sciences in Modern Britain*

In his *Fragments of Science for Unscientific People* (1871), the physicist and populariser of science John Tyndall (1820–1893) included a short essay on his investigation into modern spiritualism from the early 1860s. According to Tyndall, many spiritualists allegedly resented scientific researchers because of their so-called unwillingness ‘to apply to the “phenomena” those methods of enquiry which are found available in dealing with natural truths’ ([Tyndall, 1871](#)). Instead of affording spiritualists a fair hearing, with full consideration of the apparent evidence, scientific researchers tended to refute spiritualist claims by basing their rejections on mainly *a priori* assumptions. Thus, opposition to spiritualism was largely unempirical and injudicious; or at least that was how Tyndall characterised the spiritualist perspective. Tyndall rose to the challenge, however, and attended a séance to test the veracity of the spirit hypothesis – i.e. the idea that the phenomena produced by mediums at séances were the result of disembodied, intelligent spirits. Tyndall professed to have carefully observed a range of phenomena, engaged in critical conversation with the spiritualists attending the event, and subjected his findings to the so-called interpretive gaze of scientific naturalism. And yet despite immersing himself in a spiritualist performance, none of the manifestations that he witnessed convinced him of the legitimacy of spirit and psychic forces. Modern spiritualism had been weighed and measured, and it was still found wanting.

Figure 1



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Professor John Tyndall (1820–1893), physicist and mountaineer

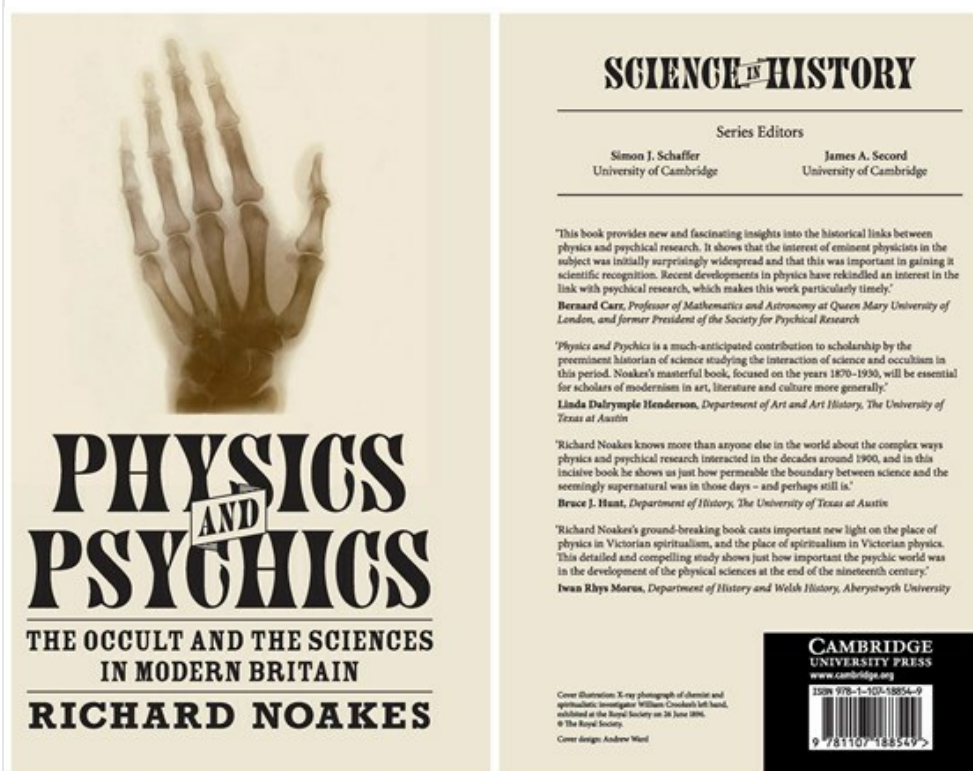
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We should be careful when reading Tyndall's account, not to be swept up in the rhetoric of the narrative. After all, like any

account, Tyndall's investigation into spiritualism should be carefully deconstructed. His narrative of the event was written with the aim of denouncing occultic belief, and framing spiritualists as antagonists of modern science was all part of his rhetorical strategy for discrediting the movement. His account, though, is still a fascinating example of Victorian science's complex and uneasy relationship with spirit and psychic phenomena. Why, for instance, did a leading scientific figure such as Tyndall devote so much space to spiritualism in his book if it was nothing more than the product of superstition and credulity? The answer is simple: because spiritualism played an important role in shaping the boundaries of modern scientific knowledge and belief. Thus, it could not be ignored, and required thoughtful consideration.

In his new book, *Physics and Psychics* (2019), Richard Noakes explores one aspect of this complicated history, by analysing the connection between the physical sciences and psychical research in Britain between 1870 and 1930; a period often regarded as the 'golden age' of the modern spiritualist movement. His core argument is this: that psychic phenomena occupied a significant place in late-nineteenth and early twentieth-century physical sciences and that the interaction between science and supposed psychic phenomena stimulated important transformations in physical theories and experimental practices. It is a sensitive and historically-informed book that in some respects offers a nuanced corrective to the seminal but somewhat whiggish work of Janet Oppenheim, *The Other World* (1985). Moreover, because this was a period of immense disciplinary development and professionalisation, Noakes looks at a broad range of historical actors, from amateur enthusiasts to elite practitioners. Therefore, the book covers an impressive breadth of topics and figures, with a notable degree of detail.

Figure 2



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Physics and Psychics: The Occult and the Sciences in Modern Britain, Cambridge University Press, 2019

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Noakes' book is a much-anticipated contribution to the historiography, having arisen out of his original doctoral research from the late 1990s. Although he has published extensively on the topic over the past two decades, this book synthesises these earlier publications and brings to light new and significant information on the historical relationship between the physical

sciences and psychical research. The book is divided into six chapters, starting with an analysis of animal magnetism at the start of the nineteenth century, all the way through to the development of psychical laboratories during the opening decades of the twentieth century. Many well-known Victorian scientific and medical figures appear throughout the chapters. For example, Michael Faraday (1791–1867), John Elliotson (1791–1868), William Benjamin Carpenter (1813–1885), William Huggins (1824–1910), James Clerk Maxwell (1831–1879), William Fletcher Barrett (1844–1925), and Oliver Lodge (1851–1940) are examined, and their engagement with spiritualism further demonstrates just how significant psychical research was for the development of the physical sciences during the modern period.

The book is also beautifully illustrated, highlighting the visual spectacle that was essential to all spiritualist performances. Some examples include a woodcut illustration depicting a late Victorian séance from *Frank Leslie's Illustrated Newspaper* in 1887; a 'double photograph' featuring the chemist William Crookes (1832–1919) and the medium Florence Cook (1856–1904) on one side of the image, and Crookes and the supposed physical materialisation of the spirit Katie King on the other side; and a scientific diagram of Crookes' 'phonautograph' from 1871, which was an automated machine for registering psychic forces ([Noakes, 2019](#)). It is also commendable, how Noakes is trying to establish 'alternative science' as an important and central field of study for the history of science broadly conceived. As he rightly contends, for much of the discipline's past, books on psychical research and spiritualism have tended to be framed as peripheral studies of pseudo-scientific topics. Yet, as *Physics and Psychics* demonstrates, the physical sciences' engagement with mediumship cut to the very core of what it meant to theorise and practice fields as diverse as chemistry, physics, physiology and psychology, to name a few.

Like any book, however, *Physics and Psychics* has its limitations. Noakes' often hyper-focused analysis of physical scientists' interaction with psychical research has the propensity to obscure the larger picture of Victorian science, which can lead to some interpretative issues. A good example is Noakes' portrayal of scientific naturalism, in which he conflates the X-Club's version as the sole definition of the paradigm. Yet as more recent works such as *Victorian Scientific Naturalism* has shown, the concept was far more complicated ([Dawson and Lightman, 2014](#)). For example, figures such as Alfred Russel Wallace (1823–1913), who was the co-discoverer of evolution by natural selection, diverged considerably from the more hard-lined verificationist assumptions of researchers such as the biologist Thomas Henry Huxley (1825–1895). That does not mean that Wallace was not a scientific naturalist. He still attempted to explain spirit and psychic forces by identifying the natural laws that governed them. ^[1] These criticisms aside, though, Noakes has written an important book that will quickly become staple reading for anyone interested in science and occultism and the making of modern science broadly construed.

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Tags

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Footnotes

1. For more on Wallace's scientific naturalist, particularly with regards to studies of spirit and psychic phenomena see: Efram Sera-Shriar, 'Credible Witnessing: A. R. Wallace, Spiritualism, and a "New Branch of Anthropology"', *Modern Intellectual History*, 1–28 (online version available, print publication date TBA: <https://www.cambridge.org/core/journals/modern-intellectual-history/article/credible-witnessing-a-r-wallace-spiritualism-and-a-new-branch-of-anthropology/24BDED3F341325758CB186CF1245F195>)

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2. Noakes, R, 2019, *Physics and Psychics: The Occult and the Sciences in Modern Britain* (Cambridge University Press), pp 46, 196 and 210
3. Oppenheim, J, 1985, *The Other World: Spiritualism and Psychical Research in England, 1850–1914*, Cambridge University Press
4. Tyndall, J, 1871, *Fragments of Science for Unscientific People: A Series of Detached Essays, Lectures, and Reviews*, 2 vols. (London: Longmans, Green and Co), pp 427–436 (on p 427)

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As Research Grants Manager for the Science Museum Group, Efram is responsible for the development and management of all grant-based research at SMG's five national museum sites. Efram is also an historian of the human sciences and received his PhD from the University of Leeds. His research focuses on three main areas: history of anthropology, the context of Victorian science, and the historical relationship between science and religion. He has held major grants and fellowships in North America and Europe, and he has published two books – *The Making of British Anthropology* (2013) and *Historicizing Humans* (2018) – and over 25 academic papers. His current research explores psychical research in the modern period. Since 2006 he has been an editor and co-investigator for the John Tyndall Correspondence Project