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## SPIRITUALISM AND A MID-VICTORIAN CRISIS OF EVIDENCE

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## SPIRITUALISM AND A MID-VICTORIAN CRISIS OF EVIDENCE\*

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**ABSTRACT.** *Historians writing on Victorian spiritualism have said little about the reported phenomena of the séance room, despite such events having been the primary reason given by spiritualists for their beliefs. Rather, such beliefs have been seen as a response to the so-called ‘crisis of faith’, and their expression as part of a broader scientific and cultural discourse. Yet the debate about séance phenomena was significantly problematic for the Victorians, in particular the reported phenomena associated with the best-known Victorian medium, Daniel Dunglas Home. In the attempt to provide a natural explanation for Home’s phenomena, two groups of experts were appealed to – stage conjurors and scientists – yet it seems clear that the former were unable to explain the phenomena, while scientists who tested Home concluded his phenomena were real. The overwhelming rejection of supernatural agency, and the nature of the response from orthodox science, suggests that such reported phenomena were less the result of a crisis of faith than the cause of a crisis of evidence, the implications of which were deemed scientific rather than religious.*

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In 1860, a journalist reported that he had attended a séance in a private drawing room in London, conducted by the celebrated medium, Daniel Dunglas Home. During this séance, if we are to believe the journalist, the medium had risen in the air and, for several minutes, had floated horizontally around the room. The journalist ruled out trickery or his own imagination as explanations for this extraordinary event, and his honesty was vouched for by the journal’s editor, William Makepeace Thackeray.<sup>1</sup>

Few people can read such an account without doubting its reliability. For most readers, the point at which doubt emerges is that part of the narrative in which the medium begins to float in the air. Details concerning when and where the séance took place present no such problem initially, though once the medium begins to rise, so may suspicions about such details. Given the problematic nature of such evidence, it is perhaps not surprising that historians have tended to focus on other aspects of spiritualism, despite the general agreement that the events of the séance room were central to spiritualist practice and belief. Victorian

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<sup>1</sup> [Robert Bell], ‘Stranger than fiction’, *Cornhill Magazine*, 2 (1860), pp. 211–24. When criticized for publishing the article, Thackeray replied, ‘had you seen what I have witnessed you would hold a different opinion’ (C. Weld, *Last winter in Rome* (London, 1865), pp. 179–81).

spiritualism has been studied in terms of class and gender, while spiritualists' beliefs have tended to be viewed in relation to the general decline in the authority of orthodox Christianity and, more specifically, as a response to the so-called 'Victorian crisis of faith' provoked by Biblical criticism and Darwinism.<sup>2</sup> Victorian spiritualism has also been recently discussed in terms of emerging lines of demarcation in the construction of scientific knowledge, and as part of a broader cultural discourse about the 'disenchanted' nature of modern society.<sup>3</sup>

In all these contexts, of course, spiritualist beliefs can be attributed (implicitly or explicitly) to reasons other than the phenomena that reportedly occurred in the séance room, and the problematic nature of séance reports is avoided, but then so is the primary topic of concern in the Victorian debate about spiritualism. Séance phenomena were, after all, the primary reason given by spiritualists for their initial conversion to spiritualism and for their continuing beliefs.<sup>4</sup> Written accounts of such events were invariably presented to the wider public as evidence that séance phenomena were real, and for many readers these would have been supplemented by personal accounts of acquaintances who had witnessed them at first hand. If such accounts are problematic for historians, they were significantly more so for those who read them as ostensibly accurate descriptions of what was going on at the time. But while historians might be able to dismiss them as inherently unreliable sources, this was somewhat more difficult for the Victorians. For one thing, witnesses included individuals of unquestionable intellect and social status whose testimony demanded to be taken seriously. Daniel Dunglas Home, by far the most famous of Victorian mediums, conducted séances for the British aristocracy and Continental royalty, for writers, artists, politicians, and scientists, as well as for countless respectable professionals. Those who became

<sup>2</sup> Logie Barrow, *Independent spirits: spiritualism and English plebeians, 1850–1910* (London, 1986); Alex Owen, *The darkened room: women, power and spiritualism in late Victorian England* (London, 1989). The relationship between spiritualism and the loss of faith in orthodox Christianity is suggested by those writers who, in brief notes, have lumped spiritualism together with a diverse range of unorthodox religious groups (S. Hynes, *The Edwardian turn of mind* (Princeton, NJ, 1968); Jose Harris, *Private lives, public spirits: Britain, 1870–1914* (London, 1993)), or have argued that it provided a more acceptable eschatology than Christianity (G. Rowell, *Hell and the Victorians* (Oxford, 1974); S. Budd, *Varieties of unbelief: atheists and agnostics in English society, 1850–1960* (London, 1977), p. 117). John J. Cerullo, *The secularization of the soul* (Philadelphia, 1982), presents spiritualism as a response to scientific materialism, while Janet Oppenheim, *The other world: spiritualism and psychical research in England, 1850–1914* (Cambridge, 1985), explicitly describes it as a response to the 'crisis of faith'.

<sup>3</sup> R. Noakes, 'Cranks and visionaries: science, spiritualism and transgression in Victorian Britain' (PhD thesis, Cambridge, 1998); Roger Luckhurst, *The invention of telepathy* (Oxford, 2001); Daniel Cottom, *The abyss of reason: cultural movements, revelations and betrayals* (New York, 1991); Pamela Thurschwell, *Literature, technology and magical thinking, 1880–1920* (New York, 2001); Simon During, *Modern enchantments: the cultural power of secular magic* (Cambridge, 2002).

<sup>4</sup> It was a continual theme in the writings of spiritualists that they had been forced to believe by what they had seen, for example: *Spiritual Magazine*, 1 (1860), p. 233; D. D. Home, *Incidents in my life* (London, 1863), p. 174; [Mrs Webster], *Scepticism and spiritualism: the experiences of a sceptic by the authoress of Aurelia* (London, 1865), p. 3; *Spiritual Magazine*, 4 (1869), pp. 368, 461; London Dialectical Society, *Report on spiritualism* (London, 1873), pp. 142–5, 157; *Spiritual Magazine*, 5 (1877), p. 552; Mme Home, *D. D. Home, his life and mission* (London, 1921), p. 87.

convinced that he had genuine powers included Robert Owen, John Ruskin, Elizabeth Barrett Browning, and Robert Chambers, while his patrons included Napoleon III and Tsar Alexander II. These, and countless others, became convinced because they were unable to provide an alternative explanation for what they saw. As this article argues, however, those who were not convinced that the phenomena were supernatural also struggled to provide a natural explanation, and when the reality of the phenomena was ostensibly validated by scientists, the problem of séance reports provoked a crisis of evidence, one that provoked a less than scientific response from orthodox science.

## I

Home's importance and influence has long been forgotten, outside the world of psychical research, as historians have tended to lump together the various individuals who conducted séances, most of whom were relatively clumsy performers who at one time or another either confessed or had their methods exposed.<sup>5</sup> While many Victorians no doubt made similar generalizations, those with an interest in spiritualism (whether believers or not) recognized Home to be rather different from other contemporary mediums.<sup>6</sup> His unique access to the rich and famous was facilitated by an appearance of respectability – he was fairly well educated and, unlike other mediums, he never accepted payment for his séances – along with a claim that his father was the natural son of the tenth earl of Home.<sup>7</sup> His success, however, relied upon an ability to produce a wide range of seemingly inexplicable phenomena in the séance room without any signs of trickery being involved.

A typical Home séance would take place in what witnesses described as good light, in conditions that allowed or encouraged critical scrutiny, and would involve not only raps, but movements of a heavy table, the appearance of 'spirit hands', and the playing of a musical instrument without apparent human contact. On other occasions, witnesses reported that he handled red-hot coals, elongated his body, caused the room to tremble, and levitated to the ceiling. In twenty-five years of conducting séances, he was never caught cheating, despite

<sup>5</sup> On confessions relating to the Fox sisters (Frank Podmore, *Modern spiritualism: a history and a criticism* (2 vols., London, 1902), I, pp. 185, 188), the discovery of Mrs Hayden's methods (Podmore, *Modern Spiritualism*, II, p. 10), the exposure of the Davenport brothers (S. W. Clarke, *The annals of conjuring* (New York, 1983), pp. 199–203), and see below for exposures of other mediums.

<sup>6</sup> That Home was uniquely impressive was regularly noted by spiritualists, admitted by critics, and has been agreed upon since by historians of psychical research, regardless of their position towards the reported phenomena (see respectively, for example: Mme Home, *Life and mission*, pp. 217–18; *All the Year Round*, 28 July 1860, pp. 370–4; Trevor Hall, *The enigma of Daniel Home: medium or fraud?* (Buffalo, 1984); Podmore, *Modern spiritualism*, II, p. 223.

<sup>7</sup> The middle name of Dunglas did not appear on his birth certificate, a fact that has been used to dispute the validity of this claim (Hall, *Enigma of Daniel Home*), but there is a signed document by a resident of Edinburgh, testifying that his father's lineage was well known (Society for Psychical Research collection, University of Cambridge library, SPR.MS 28/139).

many attempts to catch him, he was tested more thoroughly than any medium in this period, and he convinced many non-spiritualists in the existence of a natural (what became known as a 'psychic') force.<sup>8</sup> Whether he was a genuine medium or rather a skilled conjuror of the more mundane variety continues to be debated by psychical researchers, but the question was widely debated among the Victorian intellectual and social elite and more widely still in the periodical press. Home became the exemplar medium, continually cited by spiritualists in support of their beliefs, and the most challenging case for critics of spiritualism to deal with. For while less impressive mediums might be exposed as frauds and their phenomena explained away, spiritualists were keen to point out that '[a]n impostor, or a thousand impostors, as the friend of Thackeray has well observed, will not remove a single fact'.<sup>9</sup>

Naturally, a great deal of effort was directed to how one might explain what Home did without assuming that his witnesses were gullible or dishonest, yet no particular line was unproblematic. Suspicions emerged that witnesses reporting such extraordinary events might be victims of some kind of mental condition. Dr Charles Lockhart Robertson, Commissioner for Lunacy, for example, suggested Home's reported phenomena were the result of 'imaginings'. Yet explicit distinctions were made between insanity and the more common kinds of mental processes – such as hallucination and optical illusion – that might somehow account for what witnesses claimed they had seen. All of them, it has to be said, were strenuously denied by the witnesses themselves, one of whom was Lockhart Robertson himself, who later attended a Home séance and publicly admitted he had been wrong.<sup>10</sup> Mesmerism was another theory that appeared occasionally, but did not fare any better, in part because acknowledged experts on mesmerism – such as William Gregory and John Elliotson – both attended Home's séances and were adamant this was not the explanation (indeed, Elliotson was another who publicly changed his position after witnessing a Home séance).<sup>11</sup>

All the evidence suggests that the most common attribution of Home's phenomena was to trickery and, in support of that argument, two groups of experts were appealed to – stage conjurors and scientists. Both had vested interests in denouncing the claims of spiritualists and both had specific expertise relevant to the provision of a natural explanation for these ostensibly supernatural

<sup>8</sup> John Beloff, *Parapsychology: a concise history* (London, 1993), pp. 41–51; Stephen Braude, *The limits of influence: psychokinesis and the philosophy of science* (Lanham, 1997), pp. 63–94.

<sup>9</sup> *Spiritual Magazine*, 1 (1860), p. 388. The friend of Thackeray was Robert Bell, author of the *Cornhill* article referred to above.

<sup>10</sup> On Robertson's conversion, see: *Journal of Mental Science*, 4 (1857), pp. 385–6; *Spiritual Magazine*, 1 (1860), p. 342. For the rejection of hallucination by other witnesses, see: *Spiritual Magazine*, 2 (1861), p. 63; Mrs E. Baker, *Fraud, fancy, fact: which is it? An enquiry into the mystery of spiritualism, with a narrative of personal experience* (London, 1862), p. 11; *Spiritual Magazine*, 3 (1868), p. 36; *Human Nature*, 3 (1869), p. 140; *Spiritual Magazine*, 1 (1860), p. 233; London Dialectical Society, *Report*, p. 135; Eric Dingwall, 'Psychological problems arising from a report of telekinesis', *British Journal of Psychology*, 44 (1953), p. 63; P. P. Alexander, *Spiritualism: a narrative with a discussion* (Edinburgh, 1871), pp. 9–10.

<sup>11</sup> *Spiritual Magazine*, 5 (1864), p. 216; *Morning Post*, 3 Aug. 1868, p. 3.

phenomena. What is interesting, however, is that neither group appears to have known how the phenomena associated with the most famous medium of the period were produced. In their attempts to provide the public with some sort of explanation, they gave misleading responses and made unsubstantiated accusations, which failed to convince many non-spiritualists. The debate about Home's phenomena illustrates how knowledge and authority could be negotiated in the mid-Victorian period, how serious a threat such phenomena posed, in particular, to orthodox science, and suggests that spiritualist beliefs were more than a response to a 'crisis of faith', that while they clearly formed part of a broader scientific and cultural discourse, they deserve to be understood to a greater extent in terms of how they were expressed by spiritualists themselves.

## II

Home arrived in London in 1855, by which time critics had already provided the public with detailed explanations for reported séance phenomena. Table-tipping and table-turning had been explained by W. B. Carpenter in terms of 'ideomotor' action, the theory had been tested by Faraday, and the successful results disseminated in the press.<sup>12</sup> In the same year, G. H. Lewes had visited the medium, Mrs Hayden, then published an article in the *Leader* explaining how she answered spirit questions, and how he had caught her out.<sup>13</sup> It soon became clear, however, that Home would not be so easily exposed. Within weeks of his arrival, the former chancellor, Lord Brougham, attended one of Home's séances with Sir David Brewster, the expert on optics and author of *Letters on natural magic*, a book that had sought to provide natural explanations for ostensibly supernatural phenomena.<sup>14</sup> Brewster had been invited, he later explained, 'to assist in finding out the trick'.<sup>15</sup> Following the séance, Brewster wrote a letter to his sister in which he stated that, though he did not believe the phenomena to be the result of spirits, he could not conjecture as to how they were produced.<sup>16</sup> In October of that year, however, the *Morning Advertiser* included a statement suggesting David Brewster and Lord Brougham were spiritualists, and this prompted Brewster to write to the paper to reject the charge. In doing so, he suggested that the phenomena – which had included 'spirit raps', the movement of a table, and the ringing and movement of a bell without any apparent contact – 'could all be produced by human hands and feet'. Brewster's accusation of imposture provoked others present at the séance to question his recollection of events, and remind him that he had regarded the phenomena as inexplicable at the time. Brewster's second letter, however, offered more specific suggestions about how Home produced his

<sup>12</sup> [W. B. Carpenter], 'Electro-biology and mesmerism', *Quarterly Review*, 93 (1853), pp. 501–57; *Times*, 4 July 1853, p. 8; 'Faraday on table-moving', *Athenaeum*, 2 July 1853, pp. 801–3.

<sup>13</sup> Podmore, *Modern spiritualism*, II, p. 10.

<sup>14</sup> David Brewster, *Letters on natural magic* (London, 1832).

<sup>15</sup> Mrs M. M. Gordon, *The home life of Sir David Brewster* (Edinburgh, 1870), p. 257.

<sup>16</sup> *Ibid.*, pp. 257–8.

phenomena. The raps, he suggested, had been produced by displacement of a toe muscle, the table had been raised by Home's feet, the bell had been moved by some machinery attached to Home, and he now claimed to remember distinctly having seen Home's lower body move as other phenomena occurred. The success of the deception he attributed to the table having been covered with 'copious drapery, beneath which nobody was allowed to look'. This statement, however, was directly contradicted by others who had been present, and who wrote to the *Advertiser* to point out that Brewster had been invited to look under the table, that he had in fact looked under the table, and that he had admitted he was still unable to explain the phenomena. The inadequacy of his conjectures was further suggested by another account of Home's phenomena that appeared in the same paper, and which described additional phenomena, ruled out trickery as an explanation, and warned readers not to be impressed by Brewster's scientific credentials in such matters.<sup>17</sup>

It seems clear that Brewster did not know how to explain what he had seen and, as such a position would no doubt have been embarrassing for the author of *Letters on natural magic*, it is not surprising he came up with some conjectures, as he put it, 'for the information of the public'. While many no doubt simply accepted these theories, their shortcomings must have been obvious to any reader with more than a passing interest in the subject, and Brewster's apparent dishonesty made him a target of spiritualists for many years to come. Even the *Spectator*, no defender of spiritualism, later admitted that 'on the face of published correspondence, the hero of science does not acquit himself as we would wish or expect'.<sup>18</sup>

Over the following decade, Home's reputation grew considerably; he conducted regular séances for Napoleon III and Empress Eugénie, Queen Sophie of Holland, and Tsar Alexander II. Indeed, he married a goddaughter of the Tsar, his best man being Alexandre Dumas (père), and he met the pope but was later expelled from Rome on the charge of sorcery, an event that was discussed with some amusement in the House of Commons.<sup>19</sup> Not surprisingly, his London séances, attended by countless celebrities such as Owen, Ruskin, Thackeray, and the Brownings, received considerable press coverage. The periodical press invariably attempted to deal with how Home might cause a table to float in the air, or levitate himself, but provided little more than vague assertions about what might be done in the dark, the possibility of special apparatus or extensive preparations of the venue prior to the séance.<sup>20</sup> For anyone familiar with Home's

<sup>17</sup> Letters to the *Morning Advertiser*, 3 Oct. 1855, p. 4, to 16 Oct. 1855, p. 4. The relevant letters are also reproduced in Home, *Incidents*, pp. 237–61.

<sup>18</sup> Cited in Elizabeth Jenkins, *Shadow and the light: a defence of Daniel Dunglas Home* (London, 1982), p. 36.

<sup>19</sup> Biographies of Home include: Home, *Incidents*; Jean Burton, *Heyday of a wizard* (London, 1948); Jenkins, *Shadow and the light*.

<sup>20</sup> [G. H. Lewes], 'Seeing is believing', *Blackwood's Edinburgh Magazine*, 88 (1860), pp. 381–95; 'Spirit-rapping', *Literary Gazette*, 8 Sept. 1860, pp. 180–1; 'Modern magic', *All the Year Round*, 28 July



séances, which were often conducted in good light, in private rooms that he had not visited prior to the séance, such theories were wholly unconvincing, and witnesses invariably ruled out trickery as impossible.<sup>21</sup> The central argument in the periodical press, however, was an appeal to the authority of conjurors, that they were experts in such matters and would know how Home performed his tricks.<sup>22</sup> This recognition of conjurors as a reliable authority was a reflection of the changing cultural role that conjuring was undergoing.

### III

Conjuring as an entertainment may be seen within the context of leisure as a whole, as part of the increased ordering of leisure pursuits that took place from the end of the 18th century.<sup>23</sup> The virtue of particular leisure pursuits was increasingly proclaimed from this time, often in terms of providing 'useful knowledge', and this was not restricted to activities such as reading and debating. Hugh Cunningham has pointed out that, in the early nineteenth century, sports and popular entertainments were equally assertive in proclaiming their virtue as rational recreations.<sup>24</sup> Drawing on a private collection of early nineteenth-century printed ephemera, Robert Morris has identified a shift in the form of entertainment that relied upon wonder, particularly in terms of the content of exhibitions. He points out that '[t]he giantess and the dwarf were replaced by the reformed drunkard [and] the Christianized African', concluding that '[c]uriosity and amazement were still used to draw the audience but that audience was now offered explanation and the orderly knowledge of modernity'.<sup>25</sup> This conclusion, although based on a small set of sources, requires some consideration.

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1860, pp. 370–4; 'Home, great Home', *Punch*, 18 Aug. 1860, p. 63; 'Spirit conjuring', *Punch*, 25 Aug. 1860, p. 73; *News of the World* cited in *Spiritual Magazine*, 1 (1860), p. 438; 'Spiritualism', *Fraser's Magazine*, 66 (1862), pp. 521–2; [Abraham Hayward], 'Spiritualism, as related to religion and science', *Fraser's Magazine*, 71 (1865), pp. 22–42.

<sup>21</sup> For example: *Morning Advertiser*, 3 Nov. 1855, p. 3; Webster, *Scepticism and spiritualism*, p. 3; *Spiritual Magazine*, 5 (1871), p. 465; S. C. Hall, *The use of spiritualism* (London, 1884), p. 58; and see *Journal of the Society for Psychical Research*, 4 (1889), pp. 123–34, for several other examples.

<sup>22</sup> See, for example: *News of the World* cited in *Spiritual Magazine*, 1 (1860), p. 438; 'Spirit-rapping', *Literary Gazette*, 8 Sept. 1860, pp. 180–1; 'Spiritualism', *Fraser's Magazine*, 66 (1862), p. 521; 'The martyr medium', *All the Year Round*, 4 Apr. 1863, pp. 133–5; [Charles Lever], 'Cornelius O'Dowd upon man and women', *Blackwood's Edinburgh Magazine*, 96 (1864), pp. 10–17, at p. 16; [W. E. Aytoun], 'Modern demonology', *Blackwood's Edinburgh Magazine*, 97 (1865), pp. 192–208; 'Magic', *British Quarterly Review*, 42 (1865), pp. 76–97; 'At home with the spirits', *All the Year Round*, 3 Mar. 1866, pp. 180–4; *Spiritual Magazine*, 9 (1868), pp. 255–6; [J. C. Jeaffreyson], 'Report on spiritualism', *Athenaeum*, 28 Oct. 1871, pp. 556–8.

<sup>23</sup> Peter Bailey, *Leisure and class in Victorian England: rational recreation and the contest for control, 1830–1885* (London, 1978); R. J. Morris, *Class, sect and party: the making of the British middle class: Leeds, 1820–1850* (Manchester, 1990); J. M. Golby and A. W. Purdue, *The civilisation of the crowd: popular culture in England, 1750–1900* (Stroud, 1999).

<sup>24</sup> Hugh Cunningham, *Leisure in the industrial revolution, c.1780–c.1880* (London, 1980), p. 111.

<sup>25</sup> R. J. Morris, 'Leisure, entertainment and the associational culture of British towns, 1800–1900', 3rd International Urban History Conference, Budapest, 1996.

The sociologist, Zygmunt Bauman, has written that modernity's quest for order was a war against ambivalence. Elsewhere, he has extended Weber's notion of modernity as a 'disenchantment of the world', arguing that '[t]he war against mystery and magic was for modernity the war of liberation leading to the declaration of hostilities that made the unprocessed, pristine world into the enemy', an enemy he later describes as 'the grey area of ambivalence, indeterminacy, and undecidability'.<sup>26</sup> In this extended metaphor, magic and mystery were fought against because they made the world more ambivalent, less certain, less orderly. The role of leisure in this war can be seen in the rise of knowledge as entertainment, not only in public lectures but also in exhibitions that presented the wonders of nature and of science alongside 'the orderly knowledge of modernity'. But while such 'wonders' may have provoked wonder in the sense of admiration for nature, this is quite different from the wonder associated with conjuring. Conjuring relied upon wonder perhaps more than any other form of entertainment, and did so in a way that had obvious links to the mystery and magic that modernity fought against. It is, perhaps, worth clarifying this point. Conjuring has always been viewed to some extent as an art whose virtue is that it provokes wonder through providing the audience with an anomaly. In doing so, it leaves audiences uncertain about (lacking an explanation for) the conjuring effect, and it is this uncertainty or lack of explanation that causes wonder. While a particular agency may be guessed at – such as trapdoors or mirrors or sleight-of-hand – the very effectiveness of conjuring relies upon (and has always relied upon) the extent to which such agencies are ruled out.<sup>27</sup> It has also been the case throughout history that when audiences have witnessed a conjuring effect, and have been unable to explain how it might have been produced, some have attributed the effect to genuine magical or supernatural or psychic forces, an attribution that continues to this day.<sup>28</sup> In short, conjuring provokes wonder through presenting an effect for which the audience has no explanation, and that lack of explanation may lead some to a conclusion that is contrary to what might be called the modern scientific worldview. In terms of Bauman's war against ambivalence, conjuring's inherent anomaly (and subsequent wonder caused by uncertainty) would have been the enemy of modernity.

It is only recently that scholars have begun to discuss performance magic in these terms. James Cook has described the nineteenth-century theme of 'modern magic' as representing an epistemological shift in that performers explicitly disenchanted their performances, a transformation that culminated rather than originated in the late nineteenth century. According to Cook, this gradual shift

<sup>26</sup> Zygmunt Bauman, *Modernity and ambivalence* (Cambridge, 1991); Zygmunt Bauman, *Intimations of postmodernity* (London, 1992), pp. x–xvi.

<sup>27</sup> Peter Lamont and Richard Wiseman, *Magic in theory: an introduction to the theoretical and psychological elements of conjuring* (Seattle, 1999).

<sup>28</sup> Peter Nardi, 'Toward a social psychology of entertainment magic (conjuring)', *Symbolic Interaction*, 7 (1984), pp. 25–42; Lamont and Wiseman, *Magic in theory*, pp. 102–34.

saw magic changing from ‘a somewhat shady and morally suspect form of realism to a more self-conscious and respectable mode of illusionism’. Increasingly magicians saw disenchantment as their *raison d’être*, while their rise in respectability was aided not only by an antagonistic position towards the notion of genuine magic, and their willingness to expose frauds of all kinds (such as card sharps and fake spiritualist mediums), but also by embracing more broadly the aims and concerns of the middle class. The exemplar magician was, by the late nineteenth century, ‘well-dressed, well-mannered, and well-skilled in the art of exposé’.<sup>29</sup> Simon During has also recently described the development of ‘secular magic’ as a modern form of enchantment that won respectability in similar ways, including the denunciation of superstition and the exhibition and dissemination of scientific knowledge.<sup>30</sup>

That modern conjurors were in the business of disenchantment, antagonistic to any notion of real magic and presenting themselves as public defenders of natural law, can be seen in countless Victorian texts on conjuring, in pamphlets published and sold by conjurors, and in press reports of stage performances.<sup>31</sup> However, there was nothing new about conjuring being used in the war against superstition. It had been a theme since Scot’s *Discoverie of Witchcraft* (1584), and was part of the rational recreation discourse – late eighteenth-century conjuring texts ‘did not recommend vice or idleness’ and boasted that their contents ‘will wipe away many ill-grounded notions which ignorant people have imbibed’.<sup>32</sup> Moreover, the authors of texts that stressed the scientific basis of conjuring were often not professional conjurors, but scientists and educators who presented tricks as rational amusement, part of the scientific education of the young.<sup>33</sup> Unconcerned with the need to entertain, they exposed secrets not only in the interests of

<sup>29</sup> James Cook, *The arts of deception* (Harvard, 2001), pp. 163–213.

<sup>30</sup> During, *Modern enchantments*.

<sup>31</sup> See respectively, for example: J. N. Maskelyne, *Modern spiritualism: a short account of its rise and progress, with some exposures of so-called spirit media* (London, 1876); John Henry Anderson, *The magic of spirit-rapping* (London, c. 1849); *British Quarterly Review*, 42 (1865), p. 9.

<sup>32</sup> W. Hooper, *Rational recreations, in which the principle of numbers and natural philosophy are clearly and copiously elucidated, by a series of easy, entertaining, interesting experiments* (London, 1774), preface. See also: Reginald Scot, *The discoverie of witchcraft* (London, 1584); Thomas Ady, *A candle in the dark* (London, 1655); P. Breslaw, *Breslaw’s last legacy; or, the magical companion* (London, 1784). Simon During has recently noted that ‘rational recreation aimed at linking conjuring tricks to science and mathematical instruction’ (During, *Modern enchantments*, p. 87).

<sup>33</sup> For example: F. Accum, *Chemical amusement, comprising a serious of curious and instructive experiments* (London, 1817); J. J. Griffin, *Chemical recreations* (London, 1827); J. A. Paris, *Philosophy in sport made science in earnest* (London, 1831); [W. Clarke], *The boy’s own book: a complete encyclopedia of all the diversions, athletic, scientific and recreative, of boyhood and youth* (London, 1844); G. W. Septimus Piesse, *Chymical natural and physical magic* (London, 1859); J. Wyld, *The magic of science: a manual of easy and instructive scientific experiments* (London, 1861). More scholarly texts on natural magic by non-conjurors include: Walter Scott, *Letters on demonology and witchcraft* (London, 1830); Brewster, *Letters on natural magic*; R. Davenport, *Sketches of imposture, deception and credulity* (London, 1837); Charles Mackay, *Memoirs of extraordinary popular delusions* (London, 1841); William Godwin, *Lives of the necromancers* (London, 1843); [Religious Tract Society], *Magic, pretended miracles* (London, c. 1848).

scientific education but also to remove the sense of wonder about conjuring effects.<sup>34</sup> The conjurors who performed 'modern magic' might present themselves as advocates of science, but they rarely exposed their methods, and they regularly misrepresented scientific knowledge, most famously, Robert-Houdin's 'suspension ethereene', in which he claimed to levitate his son using the mysterious properties of ether.<sup>35</sup> Neither was there anything new about conjurors explicitly stating that what they did was trickery. Early modern jugglers, performing one type of magic while others were being persecuted because of associations with another type, seem to have been quite clear about what they did.<sup>36</sup> Nineteenth-century conjurors were, of course, noticeably different in how they looked and what they did, but in terms of what they claimed, the themes associated with the 'modern magic' narrative do not reflect the diversity of conjuring performance. On the contrary, with the emergence of 'Modern Spiritualism' from the mid-nineteenth century, a whole new breed of conjuror appeared who claimed that what s/he did was quite genuine and, in doing so, provoked the wrath of those who had been trying so hard to distance themselves from any notion of real magic.<sup>37</sup> It is only these latter conjurors, who explicitly stated they performed mere tricks, who fit into the 'modern magic' narrative. The conjurors of spirits, who usually performed for money, sometimes on stage, and who made quite different claims, complicate further any notion that conjurors were increasingly clear about the mundane source of their talents.<sup>38</sup> What does seem clear is that the public distinguished between conjurors of tricks and conjurors of spirits in terms of their respective claims, but tended to associate the methods of the latter with those of the former. As we have seen in the case of Home, however, this association was based largely on guesswork, and supported primarily by an appeal to the authority of the former (stage conjurors), claiming that they could explain the methods of the latter (spiritualist mediums). As we shall now see, this claim seems to have been unwarranted.

<sup>34</sup> Wyld, *Magic of science*, pp. 325–6; [Clarke], *The boy's own book*, p. 385.

<sup>35</sup> This, and other 'unscientific' illusions by adherents of 'Modern Magic' are described in Edwin A. Dawes, *The great illusionists* (Secaucus, 1979), pp. 81–2, 110–11, 124.

<sup>36</sup> Despite the obvious potential for jugglers to be accused of witchcraft, suggested by Reginald Scot's *Discoverie of witchcraft*, it is difficult to find much evidence of this having happened. See, for example: Louis B. Wright, 'Juggling tricks and conjury on the English stage before 1642', *Modern Philology*, 24 (1926–7), pp. 269–84; P. G. Maxwell-Stuart, *The occult in early modern Europe: a documentary history* (Basingstoke, 1999), p. 160; N. W. Bawcutt, 'Michael Vincent, alias Hocus Pocus: a travelling entertainer of the seventeenth century', *Theatre Notebook*, 54 (2000), pp. 130–8.

<sup>37</sup> According to During, 'spiritualism had a largely oppositional relation to the magic assemblage [secular magicians and related entertainment forms]', adding that their interactions were complex (During, *Modern enchantments*, pp. 152–3). However, his definition of 'secular magic' as magic 'which stakes no serious claim to contact with the supernatural' (p. 1) automatically distinguishes between the two groups.

<sup>38</sup> The vast majority of mediums, though not Home, charged for their services, and some of the most famous, such as the Davenport Brothers and Annie Eva Fay – had stage careers.

## IV

In stressing their scientific credentials, their willingness and ability to expose frauds, and their animosity towards any notion of genuine magic, stage conjurors were in an ideal position to claim authority in the fight against 'Modern Spiritualism', and the fight took place both on stage and in writing. Many of the most successful stage conjurors of the nineteenth century included performances that claimed to replicate the events of the séance room.<sup>39</sup> However, they relied upon apparatus and conditions that could hardly have been available to Home, and those who had attended Home's séances made this point.<sup>40</sup> How convincing others found such 'spirit-rapping' demonstrations is, of course, difficult to say, though as far as the very popular *Family Herald* was concerned, 'there is no more resemblance between [stage conjurors'] rapping and [those of the séance] than there is between the lowing of an ox and the song of a titmouse'.<sup>41</sup> Moreover, when contemporary periodicals cited conjuring performances in support of the argument that Home performed tricks, they referred to straightforward conjuring effects more often than pseudo-spiritualist demonstrations, which also suggests that the latter may not have been as effective as intended.<sup>42</sup> A stage performance, of course, could hardly duplicate the events of the private drawing room, but books, pamphlets, and the periodical press provided plenty of space for more elaborate explanations.

The first booklet claiming to explain the methods of séance phenomena was John Henry Anderson's *The magic of spirit rapping*, which had undergone several editions prior to Home's arrival in Britain. Even Anderson's explanations for such simple effects as spirit rapping were unnecessarily complicated, his method involving an electromagnetic device connected to the table, and operated by a confederate in an adjacent room.<sup>43</sup> Elsewhere, conjurors offered suggestions about Home's methods, but they failed to give more adequate explanations than had been provided by the press.<sup>44</sup> When the writer and close friend of Home, William Howitt, challenged a stage conjuror to explain the events of the séance described in the *Cornhill Magazine*, the latter wrote an article for *Once a Week* that promised to do so. It ended, however, without having done so, but promising a further article that would reveal the 'ridiculously simple' secrets. That article

<sup>39</sup> Clarke, *Annals of conjuring*, pp. 140, 153, 188.

<sup>40</sup> See, for example: *Spiritual Herald*, 1 (1856), p. 17; Home, *Incidents*, p. 75; Hall, *Use of spiritualism*, p. 49; T. A. Trollope, *What I remember* (2 vols., London, 1887), 1, p. 390.

<sup>41</sup> *Family Herald*, 13 (1855), p. 349.

<sup>42</sup> For example, of the following articles that made explicit comparisons between Home's phenomena and the tricks of professional conjurors, only the last referred to a pseudo-spiritualist demonstration: [Lewes], 'Seeing is believing', p. 389; 'Spiritualism', *Fraser's Magazine*, 66 (1862), p. 521; [H. L. Mansel], 'Modern spiritualism', *Quarterly Review*, 114 (1863), p. 197; 'Magic', *British Quarterly Review*, 42 (1865), pp. 76–97; [Hayward], 'Spiritualism, as related to religion and science', p. 22.

<sup>43</sup> Anderson, *Spirit-rapping*, pp. 89–90.

<sup>44</sup> For example, J. Home, *Spirit-rapping exposed* (London, 1860).

never appeared.<sup>45</sup> Over the following years, the most famous conjurors of the day expressed views on Home's phenomena, without offering any greater insight, either claiming such things could not be done, or citing stage illusions using elaborate apparatus.<sup>46</sup> For example, when the renowned French conjuror, Robert-Houdin, wrote of Home's reported levitations, he cited Pepper's Ghost, a stage illusion requiring a huge glass plate positioned in front of the stage, a method that he must have known could not have been used in the private drawing rooms visited by Home.<sup>47</sup>

In fact, the most detailed exposure of the tricks of fraudulent mediums came in 1877, written by Home himself. Part three of *Lights and shadows* (1877), on 'Modern Spiritualism', was primarily an attack on fraudulent mediums that explained many of their methods while maintaining that some phenomena, such as his own, were genuine. The worth of such a text to sceptics can be seen from the hostile reaction of many spiritualists.<sup>48</sup> That it provided the most extensive explanations available for fraudulent mediums' methods can be seen by the use made of it by sceptics, who used the book as ammunition against belief in spiritualistic phenomena generally.<sup>49</sup> Yet while the book explained many of the methods apparently used by fraudulent mediums, it offered no additional clues to how Home could have produced his own phenomena. W. B. Carpenter, a leading physiologist and psychologist, and the most prominent scientific critic of spiritualism at this time, accepted the methods offered by Home, stating in *Fraser's Magazine* that 'the cause of Common Sense has been so greatly served by Mr Home's fearless exposure of the knavery of "mediums" ... that I would not call into question his own belief in the phenomena'. Carpenter was left simply 'to exercise, in regard to the validity of Mr Home's own pretensions, the independent judgement as to what is inherently probable, which he himself so freely passes upon the pretensions of

<sup>45</sup> 'Spirit-rapping made easy; or, how to come out as a medium', *Once a Week*, 27 (1860), pp. 403–7, 489–94.

<sup>46</sup> London Dialectical Society, *Report*, p. 278; J. E. Robert-Houdin, *Secrets of stage conjuring and magic: translated and edited by Professor Hoffmann* (London, 1900), pp. 111–18; Maskelyne, *Modern spiritualism*, pp. 31–50; Prof. Hoffmann, *Modern magic* (London, 1876), pp. 551–7; E. Sachs, *Sleight of hand* (London, 1877), pp. 387–8; A. Vere, *Ancient and modern magic, with explanations of some of the best known tricks performed by Messrs Maskelyne and Cooke* (London, 1879), pp. 996–7.

<sup>47</sup> Robert-Houdin, *Secrets of stage conjuring*, pp. 111–15. Simon During has described Maskelyne as performing 'the levitation illusion of Daniel Dunglas Home', which he claims was probably borrowed from Robert-Houdin (During, *Modern enchantments*, p. 161), but this is not the case. Robert-Houdin's illusion was a suspension (i.e. his son remained in contact with a mechanical device, upon which the illusion depended), while Maskelyne's illusion was indeed a levitation, but relied upon an elaborate set-up above the stage. Even if Home had been given sufficient time for preparation, neither of these methods could have been used in a private drawing room without having been instantly detected. Moreover, the illusions looked radically different, a point made by both spiritualists and non-spiritualists (Hall, *Uses of spiritualism*, p. 49; Trollope, *What I remember*, 1, p. 390). Anyone with an interest in how such things might be done, which would have included all of Home's witnesses, would have immediately recognized these differences.

<sup>48</sup> *Human Nature*, 11 (1877), pp. 204–21, 265–75; Mme Home, *Life and mission*, p. 216.

<sup>49</sup> W. B. Carpenter, 'Psychological curiosities of spiritualism', *Fraser's Magazine*, 16 (1877), pp. 541–64; 'Lights and shadows of spiritualism by D. D. Home', *Athenaeum*, 26 May 1877, pp. 666–7.

others'.<sup>50</sup> Yet to absolve Home of fraud was to reject the most plausible natural explanation for most of Home's phenomena, and this was pointed out by the naturalist, Alfred Russel Wallace, in the following edition of the journal.<sup>51</sup> The failure of conjurors to explain Home's phenomena is further illustrated by a text that appeared in 1891, when a former fraudulent medium published an exposure of the methods he and other mediums had used. In doing so, it referred to the methods used by conjurors in their attempts to duplicate séance phenomena, noting that '[t]here is absolutely no resemblance of any kind or description, to the séance of the "medium", in these alleged exposes of the professional magician'.<sup>52</sup> Incidentally, the book did not attempt to explain any of Home's phenomena.

So far as conjurors failed to explain what Home was doing, how can such a failure be explained? Was it that they did not know, or was it that they knew but would not say? After all, conjurors have traditionally been reluctant to reveal their secrets. Yet it is difficult to attribute the lack of explanation of Home's methods to such reluctance. At a general level, the role of the conjuror as an ally of science and debunker of the supernatural demonstrates both motivation and willingness to explain conjuring methods. In any case, the conjuring texts cited above revealed conjuring secrets that had nothing to do with séance phenomena, and surely if the writers knew the methods used by Home, exposing such methods would have been preferable to explaining methods actually used by professional stage conjurors. On the surface at least, there seems to be no reason why conjurors would have been reluctant to explain Home's methods if they could have. That they did not, even when challenged to do so, strongly suggests that the most informed stage conjurors of the period simply did not know how Home produced his phenomena. Their failure was no doubt one reason why scientists came to be seen as more appropriate authorities in the question of how to explain Home's abilities. As we shall see, the mixed conclusions they came to shows how scientific knowledge and authority could be negotiated in the mid-Victorian period when challenged by a problematic anomaly.

## V

The early Victorian debate about mesmerism shows how the scientific validity of facts and theories were negotiated as part of the broader construction of orthodox science. In this process, the facts of mesmerism – such as reports of extraordinary influence by the mesmerist on individuals – were less problematic when accompanied by a theory more consistent with existing scientific knowledge, namely that events could be explained in terms of subjective experience rather than a physical 'fluid' passing from mesmerist to recipient.<sup>53</sup> In the mid-Victorian

<sup>50</sup> Carpenter, 'Psychological curiosities', p. 563.

<sup>51</sup> A. R. Wallace, 'Psychological curiosities of scepticism: a reply to Dr Carpenter', *Fraser's Magazine*, 16 (1877), pp. 694–706.

<sup>52</sup> Harry Price and Eric Dingwall, *Revelations of a spirit medium* (London, 1922), p. 17.

<sup>53</sup> Alison Winter, *Mesmerized: powers of mind in Victorian Britain* (Chicago, 1998).

period, reports of séance phenomena described similarly anomalous events, and provoked further debate about subjective mental processes. Table-turning and 'question and answer' sessions with spirits were regularly explained in terms of 'ideo-motor action', 'expectant attention', and 'unconscious cerebration'.<sup>54</sup> Yet nobody ever suggested such theories might explain larger-scale phenomena, such as Home's reported levitations, opting instead to reject the facts outright. According to *Chambers' Journal*, '[i]f this be a world of natural law, as most enlightened persons believe it to be, it is impossible that such things can be realities'.<sup>55</sup> When the author of this article, Robert Chambers, subsequently witnessed a Home séance, however, he declared that such events were indeed observable realities, and that scepticism about their reality on the basis of their extraordinary nature raised questions about the worth of human testimony as a reliable descriptor of facts. The problem of testimony was, for Chambers, largely a problem of observation. 'The scientific scepticism of our age', he complained, 'professes to spring from a sense of the extreme fallaciousness of the human senses', a point that was often conceded by sceptical scientists, but one that created a potential dilemma for science, as it too relied upon observation.<sup>56</sup> The dilemma was resolved by arguing that reliable observation required appropriate scientific expertise.<sup>57</sup> Such a position, of course, both reinforced authority in the construction of scientific knowledge, and provided a basis on which to dismiss the mass of eyewitness reports from the séance room as unreliable. It did not, however, resolve the problem of Home's reported phenomena, as individuals with scientific credentials came forward to assert publicly that they had not only witnessed such phenomena, but also had done so in conditions conducive to scientific investigation.

The emergence of scientific authority in the debate began as the result of a court case in 1868, in which Home was charged with extortion and undue influence by a widow who claimed he had deceived her into giving him money. The trial attracted considerable attention, the *Times* referring to 'this celebrated case, which has, during its ten days' hearing last Term, occupied so much space in our columns day by day, and excited public attention to an extent quite unprecedented in the annals of the proceedings of the High Court of

<sup>54</sup> [Carpenter], 'Electro-biology and mesmerism'; *Times*, 4 July 1853, p. 8; 'Faraday on table-moving', *Athenaeum*, 2 July 1853; [W. B. Carpenter], 'Spiritualism and its recent converts', *Quarterly Review*, 131 (1871), pp. 301–53; W. B. Carpenter, 'Mesmerism, odylism, table-turning and spiritualism, considered historically and scientifically', *Fraser's Magazine*, 15 (1877), pp. 135–57, 382–405; [Carpenter], 'Psychological curiosities', pp. 541–64.

<sup>55</sup> [Robert Chambers], 'The spirit faith in America', *Chambers' Journal*, 9 Feb. 1856, pp. 81–3, at p. 83. The same point was made elsewhere: 'Superstition and science', *Saturday Review*, 12 Jan. 1856, p. 194; [Augustus de Morgan], 'On force, its mental and moral correlates', *Athenaeum*, 2 Feb. 1867, p. 150.

<sup>56</sup> [Robert Chambers], *On testimony: its posture in the scientific world* (London, 1859); [Thomas Laycock], 'Modern necromancy', *North British Review*, 34 (1861), pp. 110–41, at p. 111.

<sup>57</sup> *Yorkshire Spiritual Telegraph*, 1 (1856), p. 169; *Chemical News*, 18 (1869), p. 3; Noakes, 'Cranks and visionaries', p. 70; William Crookes, *Researches in the phenomena of spiritualism* (London, 1874), p. 18.



Chancery'.<sup>58</sup> During the trial, as several individuals came forward to testify to Home's good character, the first public statements appeared to the effect that Home had been tested by scientists. Home read out a letter from J. Hawkins Simpson, an electrical engineer who had 'carefully tested varied phenomena due to Mr Home's mediumship', and Cromwell Varley, pioneer of the electric telegraph, explained that he had 'examined and tested [the phenomena], under conditions of my own choice, under a bright light, and have made the most jealous and searching scrutiny'.<sup>59</sup> Both had concluded that the phenomena were not the result of deception. Around the same time, the physicist, John Tyndall, published a letter in the *Pall Mall Gazette*, claiming that Home had previously shrunk from investigation by Michael Faraday. This prompted a reply from Home and a correspondence ensued in which Tyndall's claim was severely damaged.<sup>60</sup> The following year, the London Dialectical Society began an investigation into spiritualistic phenomena, in which Home was a prominent participant. The results were not published until 1871 due to disagreement between the committee responsible and other members of the Society, but the published report dismissed trickery as out of the question as it concluded 'that motion may be produced in solid bodies without material contact, by some hitherto unrecognised force'.<sup>61</sup> By this time, the chemist and Fellow of the Royal Society, William Crookes, had already carried out experiments with Home. In the *Quarterly Journal of Science* (which Crookes edited at the time), he had declared he had seen enough to make investigation worthwhile, but felt that guards against fraud were insufficient. A year later, following experiments with Home, Crookes announced the existence of a new 'psychic force'.<sup>62</sup> The conditions of the experiments were attested to by Edward Cox (who would later found the Psychological Society of Great Britain) and by the astronomer, William Huggins FRS, though the latter declined to draw conclusions from the experiments.

The emergence of such scientific authority was clearly deemed to be influential. In the aftermath of the court case, John Tyndall expressly complained of 'men with heavy scientific appendages to their names [having] testified, on oath, their conviction that the phenomena reputed to manifest themselves in the presence, and through the agency of Mr. Home are "not due to the operation of the known laws of nature"'.<sup>63</sup> From this perspective, the appearance shortly afterwards of Crookes's article only made matters worse. Crookes had been the recipient of a Royal Society grant only a few years before his experiments with Home, to carry out research into spectroscopy, during which time he had collaborated with

<sup>58</sup> *Times*, 23 May 1868, p. 8.

<sup>59</sup> *Spiritual Magazine*, 9 (1868), pp. 244–8.

<sup>60</sup> The correspondence is reproduced in *Spiritual Magazine*, 9 (1868), pp. 254–81.

<sup>61</sup> London Dialectical Society, *Report*, p. 13.

<sup>62</sup> W. Crookes, 'Experimental investigation of a new force', *Quarterly Journal of Science*, 8 (1871), pp. 339–49; W. Crookes, 'Some further experiments on psychic force', *Quarterly Journal of Science*, 8 (1871), pp. 484–92.

<sup>63</sup> Letter to *Pall Mall Gazette*, 18 May 1868, p. 2.

Sir George Gabriel Stokes, secretary of the society.<sup>64</sup> The extent of collaboration was such that Crookes later wrote: 'if what I owe to Stokes is deducted from my work there will be precious little left I can claim for my own!'.<sup>65</sup> However, Crookes's conclusions about Home met with significantly less support from Stokes and the society. Indeed, their response was to question his scientific competence. In an editorial note in *The Spectator*, it was stated that Crookes's paper had been rejected by the Royal Society because it had shown an 'entire want of scientific precision'. When these claims were challenged by Crookes, *The Spectator* responded that it had simply been repeating the words of 'Professor Stokes of the Royal Society'.<sup>66</sup> Around the same time, W. B. Carpenter, who was also a prominent FRS, wrote a somewhat misleading article in the *Quarterly Review* that questioned the scientific competence of the experimenters. Huggins, who would later be elected president of the society, was described as one of those 'scientific amateurs' who suffered from a 'want of that broad basis of *general* scientific culture', while Cox was dismissed as 'one of the most gullible of the gullible'. Admittedly, the article stated, Crookes had been awarded a fellowship of the society, but 'this distinction was conferred on him with considerable hesitation'. This latter claim was also challenged by Crookes, and the Royal Society admitted that it was untrue, the admission subsequently being published in the *The Daily Telegraph*.<sup>67</sup> Carpenter also gave public lectures in which he misrepresented Crookes's experiments with Home and, in doing so, offered a straightforward explanation for the results. When Crookes complained to Carpenter about this misrepresentation, the latter maintained that his understanding of the experiment was based on the authority of Professor Stokes and Sir Charles Wheatstone of the Royal Society. When, in turn, Crookes challenged Stokes and Wheatstone, their replies were somewhat evasive.<sup>68</sup> However, Carpenter's criticism ceased for a while, and he made no comment about Crookes or spiritualism generally in his presidential address to the British Association for the Advancement of Science later that year.<sup>69</sup>

While one cannot be sure that these leading scientific authorities were consciously misleading the public, their questioning of Crookes's scientific competence

<sup>64</sup> A recent historian has described Stokes as 'smitten by spiritualism and psychics' (Margaret Schabas, 'Victorian economics and the science of mind', in Bernard Lightman, ed., *Victorian science in context* (Chicago, 1997), p. 86), but this is not supported by the evidence here. Indeed, he has been described elsewhere as an Anglican to whom the idea of disembodied spirits was abhorrent (Noakes, 'Cranks and visionaries', p. 176).

<sup>65</sup> Joseph Larmor, *Memoir and scientific correspondence of the late Sir George Gabriel Stokes* (Cambridge, 1907), p. 362.

<sup>66</sup> *The Spectator*, 22 July 1871, p. 879; *The Spectator*, 29 July 1871, p. 917. Crookes's paper was also rejected by the British Association for the Advancement of Science, a decision most likely influenced by W. B. Carpenter, who became president of the British Association for the Advancement of Science later that year (Noakes, 'Cranks and visionaries', p. 185).

<sup>67</sup> [Carpenter], 'Spiritualism and its recent converts', pp. 341–3; *Daily Telegraph*, 2 May 1872, p. 10.

<sup>68</sup> The private correspondence is reproduced in Crookes, *Researches*, pp. 73–80.

<sup>69</sup> J. Palfreman, 'Between scepticism and credulity: a study of Victorian scientific attitudes to Modern Spiritualism', in R. Wallis, ed., *On the margins of science* (London, 1979), p. 218.

seems clear, and seems to have been limited to his research with Home.<sup>70</sup> After all, Crookes received three medals from the Royal Society throughout his career and, like Huggins, would later become its president.<sup>71</sup> Criticism of Crookes's experiments also appeared in the influential science journal, *Nature*, in a letter which concluded that, as his experiments were 'inaccurately performed – the details were not sufficiently examined, nor obvious errors apparently avoided ... [the experiments were] ... not worthy of scientific consideration'.<sup>72</sup> However effective such criticisms might have been, the press response to Crookes's experiments suggests that his reputation lent credibility to the results, as did the reputation of Huggins, a theme reflected in a different letter to the very same issue of *Nature*, which ruled out both self-deception and deception as explanations for the results, and praised the competence of the experimenters in the process.<sup>73</sup>

Elsewhere, some seem to have felt that the investigations of Crookes and the Dialectical Society meant science could no longer simply dismiss the phenomena out of hand. During the British Association for the Advancement of Science conference of 1871 in Edinburgh, for example, the *Edinburgh Evening Courant* was critical of Professor Allen Thomson's denunciation of all spiritualistic phenomena. The editorial stated that the paper was by no means an advocate of spiritualism, but it regarded Thomson's remark as unscientific, particularly as equally qualified scientists had investigated and testified to the reality of some phenomena.<sup>74</sup> Press reaction was certainly not always so positive.<sup>75</sup> However, *The Spectator*, *Echo*, and *Daily News* cautiously recognized the need for further investigation, as did the *The Daily Telegraph*, which pointed out that '[t]he fact that some men, respectable in intellect and conversant with science, have testified their faith in the reality of the phenomena, makes it worth our while to investigate the matter with keener eyes than if the believers were all impulsive and unscientific observers'.<sup>76</sup> Similarly, the *The Times* stated of the Dialectical Society report that 'if it proves nothing else it proves that it is high time competent hands undertook the unravelling of this Gordian knot'. Presumably it was with this object in mind that the writer of the article had attended séances with Home at which, though he suspected imposture, he failed to detect any trace of it.<sup>77</sup> That séance phenomena appeared to be gaining at least some level of scientific credibility is further suggested when a letter from Henry Dircks to the *The Times* claimed that '[n]o really

<sup>70</sup> Roger Luckhurst has recently described this episode under the heading 'Dirty Tricks?', arguing that the failure of such strategies led to proponents of scientific naturalism arranging the entrapment of the medium Heryn Slade in 1876 (Luckhurst, *Invention of telepathy*, pp. 32–6).

<sup>71</sup> Noakes, 'Cranks and visionaries', p. 60.

<sup>72</sup> *Nature*, 3 Aug. 1871, pp. 278–9.

<sup>73</sup> *Spectator*, 8 July 1871, p. 828; *Nature*, 3 Aug. 1871, pp. 279–80.

<sup>74</sup> *Edinburgh Evening Courant*, 7 Aug. 1871, p. 4.

<sup>75</sup> The *Pall Mall Gazette* called the Dialectical Society report 'contemptuous' (London Dialectical Society, *Report*, p. 5), the *Athenaeum* referred to it as a 'piece of absurdity' ([Jeafrayson], 'Report on spiritualism', p. 556), and the *Morning Post* described it as 'entirely worthless' (London Dialectical Society, *Report*, p. 5).

<sup>76</sup> London Dialectical Society, *Report*, pp. 5–7.

<sup>77</sup> *Times*, 26 Dec. 1872, p. 5.

scientific man believes in Spiritualism'. In reply, letters cited the Dialectical Society investigation and the experiments of Crookes, and pointed out that Crookes, Varley, and Wallace were clearly 'scientific men'. When Dircks responded that two or three names among so many was negligible, Wallace was only the most prominent of those who supplied the names of several other scientific men who attested to the phenomena of spiritualism, and stressed the scientific nature of investigations into such phenomena. Such evidence suggests a growing awareness not only that it was the job of scientists to explain the phenomena, but that they had some way to go yet. As the *The Times* put it, 'our scientific men have signally failed to do their duty by the public, which looks to them for its facts'.<sup>78</sup>

Yet so far as mainstream scientists expressed a considered view on Home's phenomena, it was one that pointed to the experiences being purely subjective. Such a view was expressed in *Nature* by Professor Balfour Stewart in an attempt to explain Crookes's results with Home.<sup>79</sup> The same journal later published a similar view by the early anthropologist, E. B. Tylor, which was subsequently challenged by Wallace.<sup>80</sup> Spiritualists expressed some dismay at such a view. When the *Spiritual Magazine* cited the publications of the Dialectical Society and of Crookes as evidence that 1871 had seen more progress, perhaps, than any year since the advent of Modern Spiritualism, it nevertheless complained, 'What is to be done with the testimony of highly-intelligent and honourable men? It is a mere trifling and impertinence to say they did not see what they saw, but only thought they saw it.'<sup>81</sup> The 'subjective experience' view reached a wider audience when *Punch* expressed its preference for it over the trickery theory and, in doing so, reflected the shift of authority from conjurors to scientists. Criticizing the attempts by conjurors to expose the methods of mediums, the magazine pointed out that, '[m]en of science believe them to be either fictitious or subjective ... To give imitations, then, of those pretended phenomena, how clever soever, is not a clever way to prove Spiritualism humbug. What is there to imitate?'<sup>82</sup>

The precise nature of the subjective experience was not spelt out by Stewart, but Tylor spoke of mesmerism. Wallace responded by pointing out significant differences between mesmeric phenomena and spiritualistic phenomena, but the points had been made already by several experts on mesmerism who had witnessed Home's séances, and no witness had ever suggested or accepted they had been mesmerized, even those hostile to Home personally or to spiritualism in general. Furthermore, the theory raised the more difficult problem of whether a scientist could be trusted to observe during an experiment, a problem that had far more widespread implications, and one that will be discussed below. The

<sup>78</sup> *Times*, 27 Dec. 1872, p. 10, to 6 Jan. 1873, p. 7.

<sup>79</sup> Balfour Stewart, 'Mr Crookes on the "psychic" force', *Nature*, 27 July 1871, p. 237.

<sup>80</sup> *Nature*, 29 Feb. 1872, p. 343; *Nature*, 7 Mar. 1872, pp. 363-4.

<sup>81</sup> *Spiritual Magazine*, 13 (1872), pp. 1-4.

<sup>82</sup> 'Conjurors and no conjurors', *Punch*, 19 July 1873, p. 23.

problems of such a theory were never resolved through further investigation, however, as Home retired shortly afterwards due to ill health.

Home retired in 1872, and there seems little doubt that exposure of fraud (and therefore public awareness of it) grew rapidly from around this time. The spiritualist periodicals themselves recorded how Herne and Williams had faked spirit photographs in 1872, how Florence Cook was grabbed while dressed as a spirit in 1873, how Rosina Showers was caught cheating by Cox in 1874, and confessed to Crookes in 1875, and both Henry Slade and Dr Monck were convicted of fraud in 1876. That same year, the *Spiritual Magazine* wrote of 'these days ... when trickery in connection with Spiritualism is so rife that it threatens to swamp the entire movement'. The following year, Home published *Lights and shadows* in which he explained methods of fraud and denounced fake mediums and dark séances. In 1878, Charles Williams and his new colleague were caught by spiritualists dressed up as spirits complete with fake beards. According to Podmore, the first comprehensive historian of Modern Spiritualism, 'from this episode may be said to date the decline of spiritualism in this country. Its later history is little else, indeed, than a history of similar exposures.'<sup>83</sup> Nevertheless, scientific investigation of spiritualistic phenomena continued throughout these years. Darwin and Galton attended séances and were impressed with what they saw, while more regular research was carried out by individuals such as William Barret and Lord Rayleigh and, later, with the founding of the Society for Psychical Research in 1882. However, the association with fraud led to a decline in interest in physical phenomena, and research was concentrated primarily on ostensibly mental phenomena such as clairvoyance and telepathy. Yet Crookes never changed his view about Home, and maintained, as did others who became disillusioned by the exposures of fraudulent mediums, that he was the only medium in whom he retained confidence.<sup>84</sup>

## VI

Home remains something of an enigma partly because, to this day, sceptics have failed to explain adequately how he produced his phenomena.<sup>85</sup> Though he is little-known today outside of psychical research, to the Victorians he was a major celebrity who gained the support of notable scientists and intellectuals, and the attention of the public at large. His phenomena challenged both scientific and

<sup>83</sup> *The Spiritualist*, 34 (1872), p. 40; *Medium and Daybreak*, 26 Dec. 1873, p. 618; *Spiritual Magazine*, 15 (1874), pp. 280–1; R. G. Medhurst and K. M. Goldney, 'William Crookes and the physical phenomena of mediumship', *Proceedings of the Society for Psychical Research*, 54 (1964), 113; *Human Nature*, 10 (1876), p. 525; *Spiritual Magazine*, 17 (1876), pp. 556–7; Podmore, *Modern spiritualism*, II, pp. 111–12.

<sup>84</sup> Medhurst and Goldney, 'William Crookes', p. 115; See also Mme Home, *Life and mission*, pp. 133, 158, 217–18.

<sup>85</sup> The most recent assessment of the British evidence can found in Peter Lamont, 'How convincing is the evidence for D. D. Home?', 42nd Parapsychology Association Conference, San Francisco, 1999. Recent sceptical texts on Home have tended to focus on minor events (Hall, *Enigma of Daniel Home*), or simply repeated earlier allegations (Gordon Stein, *The sorcerer of kings* (Buffalo, 1993)).

religious attitudes, and attempts to explain how they were produced occupied both the minds of his contemporaries and a significant amount of column space in the periodical press. So far as the latter is representative of the former, most contemporaries regarded Home as a trickster, and supported this view by claiming that conjurors could explain the details. Conjurors, however, do not appear to have known what was going on. Their failure to explain, no doubt along with the general rise of scientific authority, led to the discourse increasingly becoming a scientific one, yet orthodox science provided no additional clues, while the few scientists who investigated spiritualist phenomena ruled out trickery. Though many contemporaries no doubt would have accepted the broad accusation of trickery against Home, anyone comparing the available explanations with the available evidence would have become increasingly aware of the gap between the two. Those who had attended Home's séances were certainly aware of this gap, as were spiritualists more generally. In terms of understanding Victorian spiritualist beliefs, this is important since, when they articulated their beliefs, they repeatedly stressed that they had become convinced by the evidence, that is, by séance phenomena. As nobody else seems to have been able to provide an adequate alternative explanation, perhaps it is time more credit was given to the reasons they themselves gave for their beliefs. Such an acknowledgement does not require acceptance that Home's phenomena were genuine, but it does suggest that spiritualist beliefs were more than a response to a 'crisis of faith'. One need not form any conclusion on the authenticity of the phenomena to acknowledge that many could have been convinced by phenomena that eluded explanation by the most eminent conjurors and scientists of the period.

No doubt many were influenced by the emotional and intellectual crisis of faith prompted by Biblical criticism and Darwinism, but this in turn begs another question. Rather than asking why some Victorians came to be convinced of spiritualism, perhaps one should be asking why others did not. If the mid-Victorian period was one characterized by a crisis of faith, why was there such a strong rejection of evidence of an after-life when nobody had an adequate alternative explanation for such phenomena? One answer to that question, presumably, is that séance phenomena had all the problems of miracles without the advantages. While it was often remarked (and not only by spiritualists) that the evidence for séance phenomena was stronger than that for Biblical miracles, the latter clearly had significant cultural support. More recent miracles, on the other hand, such as those associated with Roman Catholicism, had long been dismissed as the result of imposture and delusion.<sup>86</sup> It is hardly surprising that evidence for such phenomena was treated with scepticism. In addition, of course, Home would have been seen as part of a wider movement involving significantly less impressive mediums, several of whom were publicly exposed as frauds. Yet this cannot be the whole story, since even many of the individuals who accepted the facts of Home's

<sup>86</sup> See, for example: Brewster, *Letters on natural magic*; Davenport, *Sketches of imposture*; Mackay, *Memoirs of extraordinary popular delusions*; Godwin, *Lives of the necromancers*.

phenomena did not accept they were the result of spirits. Some preferred to attribute the phenomena to a new kind of natural force, while others simply declared they could not accept spiritual agency.<sup>87</sup> Similarly, so far as the periodical press cautiously acknowledged that the phenomena appeared to have some empirical support, it did so in language that favoured natural rather than supernatural agency.<sup>88</sup> The overwhelming rejection of supernatural agency, despite it being the explanation offered by Home for otherwise inexplicable phenomena, suggests that such reports were less the result of a crisis of faith than the cause of a crisis of evidence, the implications of which were more obviously scientific than religious.

The problem for orthodox Christianity, after all, was that the growing scientific evidence for séance phenomena was clearly superior to that for Biblical miracles, a point that was not only stressed by spiritualists but also freely admitted in the high-brow press.<sup>89</sup> This, of course, in the immediate aftermath of *Origin of species* and *Essays and reviews*, both of which had challenged the authenticity of Biblical miracles. But while Christian critics of Darwin had stressed the empirical weakness of his theory, the response in this case was to seek moral rather than empirical support, to appeal, as it were, to religious rather than scientific authority by distinguishing between such external evidence and the internal evidence of revelation, as part of a wider discourse on the nature of religious and scientific evidence.<sup>90</sup> More generally, séance phenomena had been denounced as diabolical at worst, or as blasphemous at best, but with the rising body of evidence came a secular frame through which one could view psychic phenomena as morally neutral, and within the domain of science. Despite the constant appeals of Christian spiritualists, orthodox Christianity refused to employ such evidence to support the reality of Biblical miracles, preferring instead to hand over jurisdiction for their assessment.

The crisis for orthodox science, however, was not only that the reported phenomena challenged existing scientific knowledge, though this was serious

<sup>87</sup> Examples of the former are William Crookes and Serjeant Cox, both of whom advocated a 'psychic' force theory. See also: Alexander, *Spiritualism*, p. 48; *Human Nature*, 7 (1873), p. 162; *Nineteenth Century*, 27 (1890), pp. 576–81. Examples of the latter are William Gregory (*Spiritual Magazine*, 4 (1863), p. 451), William Huggins (Mme Home, *Life and mission*, p. 201), and W. H. Ashurst (Mme Home, *Life and mission*, pp. 137–8). See also: *Spiritual Herald*, 1 (1856), p. 43; *Spiritual Magazine*, 1 (1860), pp. 84–6; *Spiritual Magazine*, 1 (1860), p. 151; Baker, *Fraud, fancy, fact*; Home, *Incidents*, p. 174; Mme Home, *Life and mission*, pp. 87, 137.

<sup>88</sup> *Times*, 26 Dec. 1872, p. 5; *Echo* quoted in London Dialectical Society, *Report*, p. 7.

<sup>89</sup> 'Spiritualism and its evidences', *Westminster Review*, 97 (1872), pp. 461–8; Viscount Amberley, 'Experiences of spiritualism', *Fortnightly Review*, 15 (1874), pp. 82–91; [A. R. Wallace], 'A defence of modern spiritualism', *Fortnightly Review*, 15 (1874), pp. 630–57, 785–807.

<sup>90</sup> The distinction was not new, but it was being made more often ([Frances P. Verney], 'Evidence: historical, religious and scientific', *Fraser's Magazine*, 4 (1871), pp. 512–24, at p. 515). On this, and the more general debate, see the references in n. 89, and: W. B. Carpenter, 'On the psychology of belief', *Contemporary Review*, 23 (1873), pp. 123–45; W. B. Carpenter, 'Fallacies of testimony in relation to the supernatural', *Contemporary Review*, 27 (1876), pp. 279–95; Carpenter, 'Psychological curiosities'; Wallace, 'Psychological curiosities'.

enough. 'Up to this time the efforts of scientific men have been directed to explain an orderly world', Augustus de Morgan pointed out in the *Athenaeum*, but such a new force 'will certainly result in universal Bedlam'.<sup>91</sup> Yet however undesirable such a force might be, it was argued time and again that one must accept the facts, and that to do otherwise was unscientific. 'Our duty', declared the chemist, William Gregory, who was also convinced of the reality of Home's phenomena, 'is to study nature as she presents herself and to take the facts as we find them'.<sup>92</sup> When Faraday had suggested a less humble approach, that scientific investigation might begin with 'a clear idea of the possible and impossible', he had been severely criticized (as it happens, by Augustus de Morgan in the *Athenaeum*).<sup>93</sup> Furthermore, the debate after Darwin led to greater emphasis upon the primacy of fact over theory, and when Crookes began his investigations with Home, he did so by explicitly rejecting Faraday's suggestion, presenting himself as the ideal scientific observer, 'with no preconceived notions whatever'.<sup>94</sup> Crookes's approach was 'thoroughly scientific' in the opinion of Francis Galton, who attended subsequent investigations with Home, and was encouraged to do so by Darwin.<sup>95</sup> The threat that such phenomena posed to scientific knowledge was thus exacerbated by a discourse of open-minded empiricism that few scientists could argue with.

Yet the wider implications of the reported phenomena were not only that they challenged existing scientific knowledge, but also that they pointed to more general problems of scientific authority. After all, even if the phenomena were not real, the alternative theories were no less problematic. At this time, scientists were making the public increasingly aware of the vulnerability of the senses, not only through written and lectured material but also through mass-produced optical devices.<sup>96</sup> In the process, authorities such as David Brewster could, in his attempts to debunk the non-canonical miraculous, present the eye as 'the principal seat of the supernatural'.<sup>97</sup> Yet Brewster, in his eager attempts to provide an explanation for Home's phenomena, never suggested he had been the victim of an illusion. No doubt, in part, this was because scientists, as they were stressing the problems of observation, were simultaneously building up their own authority as expert observers, and the methods of science were increasingly attempting to construct a discourse of objectivity through the use of statistics and experimental

<sup>91</sup> [De Morgan], 'On force, its mental and moral correlates'.

<sup>92</sup> *Spiritual Magazine*, 6 (1865), p. 452.

<sup>93</sup> [Augustus de Morgan], 'On the conservation of force', *Athenaeum*, 28 Mar. 1857, pp. 397-9.

<sup>94</sup> Alvar Ellegard, *Darwin and the general reader* (Gotheburg, 1958), p. 185; G. Levine, 'Scientific discourse as an alternative of faith', in R. Helmstadter and B. Lightman, eds., *Victorian faith in crisis* (Basingstoke, 1990), p. 235; Crookes, *Researches*, p. 5.

<sup>95</sup> Karl Pearson, *The life, letters and labours of Francis Galton* (Cambridge, 1924), pp. 63-6.

<sup>96</sup> Jonathon Crary, *Techniques of the observer: on vision and modernity in the nineteenth century* (Cambridge, 1992); Susan R. Horton, 'Were they having fun yet? Victorian optical gadgetry, modernist selves', in Carol T. Christ and John O. Jordan, eds., *Victorian literature and the visual imagination* (Berkeley, 1995), pp. 1-26.

<sup>97</sup> Brewster, *Letters on natural magic*, p. 11.



apparatus.<sup>98</sup> Yet neither scientific credentials nor expertise in observation were sufficient to convince Crookes's colleagues that he had seen what he claimed to have seen, and despite his stress upon experimental controls and the use of measuring instruments, he was nevertheless accused of having had a purely subjective experience, possibly induced by mesmerism. If such an argument were to be accepted in relation to new scientific discoveries, Crookes pointed out, it would 'entirely stop the whole progress of research in any branch of science'.<sup>99</sup> Such was the evidential crisis for orthodox science, one that was thought serious enough for senior members of the Royal Society to question the competence of Crookes and Huggins (both of whom later received the order of merit, as well as becoming presidents of the Royal Society), and to misrepresent the experiments they had reported, both privately and publicly.<sup>100</sup>

The views of the periodical press, however, which included not only sarcastic dismissals but entirely unsubstantiated accusations,<sup>101</sup> suggest that the threat posed by Home's phenomena was not only felt by scientists. Reports of mesmeric phenomena had already contributed to a widespread awareness that testimony itself was insufficient to convince. As Coleridge had admitted, he would not have believed others if he had not seen the phenomena for himself, so he did not expect others to believe him.<sup>102</sup> Home's witnesses often made the same point, yet there is little doubt that, as both the quantity and quality of evidence grew, witnesses increasingly expected to be believed, not least because they regarded their accounts as independent of belief. 'I wish you to understand that it is not a question of *belief* in the marvellous on our part', Cromwell Varley wrote to the physicist, J. J. Thomson, 'it is a case of *actual knowledge* that these phenomena do occur [original italics]'.<sup>103</sup> A discourse of factuality was, perhaps, the most common theme in witness accounts, and the resistance to it led to a far more problematic assertion than that of Coleridge. In the opinion of Professor Challis, a Cambridge astronomer who had never witnessed a séance, the bulk of testimony was such that 'either the facts must be admitted to be such as they were reported, or the possibility of certifying facts by human testimony must be given up'.<sup>104</sup> In the aftermath of Crookes's experiments, *Fraser's Magazine* observed that

<sup>98</sup> T. M. Porter, *The rise of statistical thinking* (Princeton, 1986); S. J. Schaffer, 'Astronomers mark time: discipline and the personal equation', *Science in Context*, 2 (1988), pp. 115–45; Lorraine Daston and Peter Gallison, 'The image of objectivity', *Representations*, 40 (1992), pp. 81–128; and essays in Lightman, ed., *Victorian science in context*.

<sup>99</sup> Crookes, *Researches*, pp. 49–50.

<sup>100</sup> There are similarities here to Kuhn's notion of a scientific crisis (T. S. Kuhn, *The structure of scientific revolutions* (Chicago, 1970), pp. 66ff), though his argument seems to have allowed for various readings, and Lakatos's interpretation of scientific crisis as a socio-intellectual crisis of confidence is actually reminiscent of the Victorian 'crisis of faith' (Imre Lakatos, *The methodology of scientific research programmes*, Philosophical Papers, vol. 1 (Cambridge, 1978), pp. 37, 177.

<sup>101</sup> See, for example: *Quarterly Review*, 114 (1863), pp. 179–210; *Times*, 9 Apr. 1863, pp. 4–5; *Spiritual Magazine*, 3 (1868), pp. 255–6.

<sup>103</sup> *Spiritual Magazine*, 6 (1871), p. 465.

<sup>104</sup> *Spiritual Magazine*, 4 (1863), p. 372. The point was often repeated, for example: *Spiritual Magazine*, 4 (1869), p. 423; *Medium and Daybreak*, 2 (1871), p. 325.

‘[t]he requirements of our age as to the amount and quality of the evidence necessary to produce credibility differ so widely from that which satisfied our forefathers, that the change is producing a silent revolution in history, science and even theology’, and the problem of séance phenomena prompted a debate on the psychology of belief that continues to this day.<sup>105</sup> The widespread exposures of fraudulent mediums that followed Home’s retirement doubtless made it easier to dismiss séance accounts out of hand, and affected subsequent views about the worth of such evidence. Nevertheless, the problems raised at the time by the most impressive accounts not only posed a serious challenge to accepted scientific knowledge, but also raised wider issues about authority and the nature of evidence.

<sup>105</sup> [Verney], ‘Evidence: historical, religious and scientific’, p. 522; Carpenter, ‘On the psychology of belief’; Carpenter, ‘Fallacies of testimony in relation to the supernatural’; Carpenter, ‘Psychological curiosities’; Wallace, ‘Psychological curiosities’; R. Hodgson and W. Davey, ‘The possibilities of mal-observation and lapse of memory from a practical point of view’, *Proceedings of the Society for Psychical Research*, 4 (1887), pp. 381–495; Dingwall, ‘Psychological problems’, pp. 61–6; A. Neher, *The psychology of transcendence* (New York, 1980); L. Zusne and W. Jones, *Anomalistic psychology: a study of magical thinking* (Hillsdale, 1989); Robert J. Sternberg, ed., *Why smart people can be so stupid* (New Haven, 2002).