*replacement*, Science, Technology and Medicine in Modern History, Basingstoke, Palgrave Macmillan, 2007, pp. xiv, 222, illus., £45.00 (hardback 978-0-230-55314-9).

The title of this book pretty much sums up what will be found here: the history of total hip replacement (THR) in Europe (mainly Britain) and North America and an account of the interests of surgeons, manufacturers and patients. The volume's association with the Centre for the History of Science, Technology and Medicine at the University of Manchester delivers its promise, as the reader might expect, of high quality research and sound historical writing. Manchester was the obvious place from which such a work might appear since the most successful hip prosthesis was developed by a local surgeon, John Charnley, at Wrightington Hospital near Wigan. Here Charnley had a clinical unit and a workshop, and a practical, apprentice-trained engineer, Harry Craven. Charnley and Craven's prosthetic hip was, at first, a classic "string and sealing wax" development. Even when their design was taken up and produced commercially their chosen collaborator was Charles Thackray, the owner of a comparatively small surgical instrument making company of that name in nearby Leeds.

The success of Charnley's hip lay in its material base (the dual components of a high density polyethylene cup and a stainless steel femoral head); Charnley and Craven's dogged testing; Charnley's development of an operation with a very low risk of infection; and Charnley's control over the access surgeons had to the details of the prosthesis and its implantation. This part of the tale is quite well known but the authors flesh it out with archival detail. As might be expected, the book reveals that Charnley's narrative was not one of single-handed heroism. THR had a prehistory in the 1930s, and in the post-war years many groups in Europe and across the Atlantic were experimenting to produce artificial hips that could be implanted with safety and restored function for a long time.

This story occupies most of the first half of the book whereas much of the second part is devoted to industrial dynamics: competition, patenting, marketing, innovation, etc. As such, this is where the United States figures large in the narrative. The authors do well to tell a complicated story for, as they recognize, commercialism cannot be treated in vacuo without reference to ageing populations and the costs and means of delivering health care. Finally patients and their expectations are explored although not as an afterthought but as part of the complex dynamics of modern, expensive, health services in different nations. Enriched by the new historiography of technology, this is a well-written piece of modern medical history. Well-written of course does not mean this is an "unputdownable" Arthur Conan Doyle short story. It is demanding and may be more often turned to for the parts rather than the whole.

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Wendy Moore, The knife man: the extraordinary life and times of John Hunter, father of modern surgery, London, Bantam Press, 2005, pp. xiii, 482, illus., £18.99 (hardback 0-593-05209-9).

The knife man is Wendy Moore's exhaustive biography of John Hunter, the eighteenth-century Scot who is often found to be residing under the label of "founding father" of modern surgery. It charts the rise of Hunter from his poor childhood home in Lanarkshire, where he displayed early on a strong curiosity for the natural world around him, to his move to London to work as an assistant to his brother William, and on to the forging of his own career as London's best known surgeon and anatomist.

The book paints a vivid picture of Hunter's fascinating and often controversial work in anatomy and Moore readily casts him in the

role of misunderstood maverick born before his time, whose devotion to the values of experimentation and observation rather than classical medical theory led to a "revolutionary impact on surgery" (p. 400). Hunter's approach to his studies reflected his personality: brilliant but brusque, kind yet quick tempered, he was admired and disliked in equal measure by his contemporaries, and his complete absorption in his work frequently isolated him from them altogether. For Hunter the lines between work and personal life were blurred and he often experimented on his own body, even infecting himself with gonorrhoea in an attempt to fathom whether the disease progressed into syphilis.

Moore's biography brings to light numerous aspects of Hunter's life and work which have yet to be fully explored by historians, and contributes towards a much needed expansion on the standard Whiggish portrait. Particularly interesting is the exploration of Hunter's relationship with his brother. William's authority as the older, more successful sibling gradually eroded as John rose to fame, causing a divergence in their careers and irreparable damage to their personal relationship. While John devoted himself to empiricism and to practising only as a surgeon, William increasingly sought to move away from his roots in surgery and anatomy into the more unsullied and lucrative role of physician-"for William the blundering brutality of the operating theatre was just too much" (p. 93) Moore writes. In 1780 there was a public falling out between the brothers when John accused William of plagiarism at a meeting of the Royal Society. But Moore also recognizes that their relationship was a complex one, with John relying on his older brother socially and financially during the early part of his career in London.

Hunter's relationship with surgery itself is also analysed. His reputation for strongly preferring anatomical investigation over surgical practice has often dissolved under the weight of being labelled founder of modern surgery, yet it was in the former that his passion lay. Hunter's pursuit of surgical practice was little more than a way to pay the bills; he was often bored by the rich Londoners who made up the majority of his patients, and he was on bad terms with his surgical colleagues at St George's Hospital for most of his career. For Hunter, the crux of his work was the exploration of life in all its forms, and it was in the practice of comparative anatomy that he could fulfil his interest in both humans and animals, structure and function.

The knife man is well researched and highly readable. The descriptive narrative helps the book's pacing, but it occasionally lapses into presentism, for instance describing standard Georgian medical practices such as bleeding and blistering as "forms of torture" (p. 73). Moore also falls foul of distracting grammatical anachronisms from time to time, even depicting the position required of patients in preparation for a lithotomy as "the ovenready position" (p. 74). The book's target audience is the general public rather than historians and it examines not only Hunter's life but also the murky world of eighteenthcentury medicine he inhabited, complete with crowded dissecting rooms, shady doctors, botched operations and grave robbing, with Moore utilizing the goriness of the era to maximum capacity. Her fondness for her subject is highly apparent, and at times excessive. A figure as prominent as Hunter in the history of surgery deserves a sterner critical eye and greater objectivity than The knife man provides, particularly in respect to Hunter's relationships with his contemporaries. Moore's characterization of Everard Home-Hunter's brother-in-law and long-term assistant-as bitterly jealous would have benefited from further analysis. Her description of Home's motivation for burning many of Hunter's papers after his death as being "no doubt, in a fit of jealous rage" (p. 398), as opposed to being part of Hunter's dying wishes, as Home always maintained, is dubious and without sufficient accompanying evidence to support it. Equally, her claim that Home went on to plagiarize him over the ensuing years also warrants further

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explanation and more evidence than the one paragraph the book provides.

Ultimately, *The knife man* is a welcome addition to our understanding of John Hunter, but its overall subjectivity still leaves plenty of room for development in the historiography of his life and legacy.

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Anne Stiles (ed.), *Neurology and literature*, *1860–1920*, Palgrave Studies in Nineteenth-Century Writing and Culture, Basingstoke, Palgrave Macmillan, 2007, pp. x, 229, £45.00 (hardback 978-0-230-52094-3).

The editor of this collection maintains in her Introduction that, between 1860 and 1920. scientists and artists were "paying very close attention to one another". Indeed, a "mutually responsive" dialogue occurred during this period that was founded upon a set of shared concerns. Stiles maintains that, whatever differences might have divided them, intellectuals engaged in different disciplines shared a common ambivalence about "the philosophical ramifications of scientific materialism and physiological reductionism" (p. 2). These are sweeping claims. None the less, it is the case that the late nineteenth century and the early decades of the twentieth did see an exceptional level of interaction between the scientific and literary worlds. This was, as Stiles points out, no one-way traffic, with science influencing literature or vice versa. There was rather a set of "two-way conversations between disciplines" (p. 13). This invites the kind of interdisciplinary enquiry that the essays in the present volume attempt, one that seeks to detail the complex interactions between medicine, biology, and literature around the turn of the twentieth century. Stiles claims that the present is a particularly auspicious moment for such an exercise because of what she alleges are strong similarities between the early twentieth and

the early twenty-first centuries' approaches to the issues surrounding mental disease.

The eight papers that make up the volume are neatly divided into four sections. 'Catalysts' deals with key events that drew the attention of literary figures to aspects of neurology. Thus Laura Otis discusses how H G Wells and Wilkie Collins "retried" David Ferrier in their novels The island of Dr. Moreau and Heart and science. She maintains that these works of fiction "offer critiques of science far more complex and insightful than those of Ferrier's prosecutors". (p. 28) Her analysis is interesting and insightful. But her assertion that "Ferrier's researches aroused the public for the same reason that audiences shuddered [sic] at The Matrix" (p. 31) seems a little far-fetched.

Part II-'Diagnostic categories'-deals with the emergence of new clinical entities and with how these found representation in works of fiction. Andrew Mangham seeks the origins of the contemporary diagnostic category of Body Dysmorphic Disorder in the psychiatric thought of the late nineteenth century. He maintains, moreover, that the emergence of the category of "dysmorphophobia" owed much to earlier fictional narratives. By 1891, "psychiatry had a backlog of works, both literary and scientific, on which it could draw in order to identify and label the concept of a looksrelated neurosis" (p. 87). Presumably, some such critical mass of exemplary material must accumulate before a term for condition can emerge.

In a third part on 'Sex and the brain' Randall Knoper maintains that in his novel, *A mortal antipathy*, Oliver Wendell Holmes made the connection between childhood trauma and sexual inversion at least a decade before the publication of Freud and Breuer's studies in hysteria. This might seem at first glance a variation on the theme of establishing priority of discovery that preoccupied medical historians of yore. However, Knoper's paper does problematize the conventional distinction between fictional and scientific writing in stimulating ways.