



The neurologists

**A history of a
medical speciality
in modern Britain,
c. 1789–2000**

STEPHEN T. CASPER

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For the Association of British Neurologists

Foreword

Medicine has a long history as both a practical enterprise and a scientific discipline. By the middle of the nineteenth century, the field of medicine was divided broadly, but not exclusively, into internal medicine and surgery. During the last half of that century, specialisation emerged within internal medicine as physicians recognised new diseases and developed tools for increasingly accurate diagnosis, the necessary prelude to assignment of therapy. In this book, Stephen T. Casper, an American trained at the Wellcome Centre for the History of Medicine at University College London, turns our attention to the origins and early history of the medical discipline of neurology in the United Kingdom from the mid-nineteenth to the mid-twentieth century. This period is particularly interesting and important in the history of modern neurology because it was then that British neurology began to lead the rest of the world. The forces that drove this ascent to excellence are evident. Industrialisation, already well underway in the United Kingdom, forced rural manpower to move to urban areas for work. Of all urban areas in the United Kingdom, London grew the most. A concentration of population resulted not only in an increased incidence of contagious diseases such as tuberculosis but also in an increased concentration of diseases with a relatively low prevalence, a characteristic of most neurological diseases other than epilepsy (the incidence of cerebrovascular disease, currently the most common neurological disease in industrialised countries, was relatively low, reflecting the short life expectancy of the period). A general recognition of the need for physicians who had specialised interest and experience in neurological diseases had not developed but was stimulated, as often happens, from an unexpected source.

In 1859, the National Hospital for Diseases of the Nervous System, the first hospital dedicated to neurologic diseases, was established. This occurred not out of an evident medical need but from the

foresight and enthusiasm of a layperson, Miss Julia Chandler.¹ That a need did exist is established not only in the success of the National Hospital but by the founding of two additional hospitals, the Maida Vale (1867) and West End (1878) hospitals. The first National Hospital physicians included Jabez Ramskill, an early student of epilepsy, and Charles Eduardo Brown-Séquard, describer of the syndrome of spinal cord hemisection, and John Hughlings Jackson. Brown-Séquard was born on the island of Mauritius, then a British possession; hence, he was British by birth. He was also a relentless and peripatetic proselytiser for himself and neurology, crossing the seas to become a professor at Harvard and to succeed Claude Bernard as professor at the College de France. Aside from his syndrome – the manifestations of hemisection of the spinal cord – Brown-Séquard contributed little of lasting value, but did serve to turn a young Jackson towards neurology. Jackson became recognised as one of the founders of British neurology and, in the assessment of many, was the greatest thinker in the history of neurology. Gordon Holmes writes: 'Jackson's work does not simply belong to the history of neurology. It remains today a live and vitalising force in the thought of all who seek depth as well as width of knowledge in the fields of neurophysiology and clinical neurology, and who wish to understand more than the reading of instruments of precision can tell them.'² The rest, as the saying goes, is history. It is, of course, the history Professor Casper relates for us.

An unforeseen factor that impelled the development of neurology was its complexity. Neurology is now known to deal with more than 700 inherited diseases and a further host of vascular, trauma, degeneration, immune abnormalities, metabolic disorders, neoplasia, and others as the fundamental aetiology.³ Unlike other medical specialists, neurologists receive only modest assistance from the laboratory, physiology or imaging. Their ability to diagnose and treat neurological illness is much dependent on history and neurological examination.

To conclude these comments, I can envisage the potential reader perusing the shelf of 'new arrivals' in a bookshop. Interested in neurology and history, she picks up this book. The dust cover is attractive but, like all sceptics, she proceeds further to peruse the contents list to determine if the book is at all 'up her alley'. This assured, she goes on to the Foreword to assess its promise for enlightenment and pleasure. If this is you, my reader, let me give you my wholehearted

endorsement of this book. It contains the story of a critical period in the evolution of modern neurology during a crucial time and in the country that led the advance. It is well written, forceful yet nuanced, engaging and stimulating, and above all, informative.

Robert Y Moore, MD, PhD, MD (Hon)
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University of Pittsburgh

Preface

Neurology, like history, is a fascinating subject. And like history, nothing about neurology is simple. Throughout all of my research, one observation in particular has always struck me as noteworthy about neurology. While many physicians and scientists have engaged with the history of their fields, I think there are few academic disciplines or clinical specialties where that is so especially the case as it is for neurology. Why this is the case forms one of the major preoccupations of this study. The tentative answer to be found in the subsequent pages is that the professional identity of past neurologists has traditionally been grounded in a set of spirited, integrative dispositions and appreciations. The implications of such an outlook has been that historically the identity of a neurologist ultimately derived of a mixture of the actions of those scientists, physicians, and philosophers who first took as their object the mind, brain, and nervous system.

Yet the story does not really end there, because even as neurologists began retrospectively reconstructing past identities, another cultural formation began transforming the nature of scientific and medical work in Europe, North America, and beyond. It was not wholly inevitable that divisions of labour began to transform the factories and plantations of the modern world. It was still less inevitable that the middle classes should have acquired similarly divided characteristics; nevertheless, the professions, academic disciplines, and clinical specialties emerged in a world that saw in classification and social segmentation the virtue of progress.

Few ideas capture so clearly that world's optimism than the idiom of *specialisation*. As a phenomenon, specialisation, especially as it appeared in the writing of Herbert Spencer, came to appear an atavism of our Neolithic past and a natural law of the growth of knowledge and technological progress. Yet the idea of *specialisation* first came into this world to describe linguistic phenomenon; it moved from there readily into the evolutionary discourses of the pre- and then post-Darwinian

worlds, and from there it aided and abetted a new organic conception of society that would in time become the favourite metaphorical trope of functionalist sociology. In this sense, *specialisation* was an idea peculiar to modernity; it would become an idea that lost much of its lustre (although not its reality) in the Digital Age.

The neurologists thus found themselves products of specialisation even as those figures who created that identity found virtues in a style of science and medicine that was the opposite of the word. At times, specialisation became such a force in the construction of their professional identity that it threatened their professional existence with still greater internal divisions. How the neurologists managed to keep their integrative outlook may help us to understand specialisation with a little more clarity. It also helps us to understand precisely why history beckons to so many neurologists. And perhaps, too, their story can shed light on a new phenomenon that began occurring in the last decades of the twentieth century – the rise of a culture that ascribed ever greater importance to the brain.

Such a narrative would not have been possible without the support of many people over the years. This study began as a doctoral dissertation at the Wellcome Trust Centre for the History of Medicine at University College London. Without the support of others in my cohort – Nandini Bhattacharya, Candice Guillet-Delisle, and Liew Kai Khiun – I very much doubt that I should have come as far as I did with this study. Similarly, I am indebted to Janet Browne, Roger Cooter, Anne Hardy, Rhodri Hayward, Christopher Lawrence, Helga Satzinger, and Andrew Wear. Each in a variety of ways inspired and encouraged me, and they made the London Centre the rich environment it was for those of us lucky enough to have briefly travelled through it. There, I also benefited from the expertise of Bruce Moran, Kiheung Kim, Katrina Gatley, Akinobu Takabayashi, and Richard Barnett.

Along the way, a number of others offered me assistance in this project. To them I can only give here too brief acknowledgement. John C. Burnham has been an amazing colleague on this journey. From him, I have learnt what it means to be passionate about history and the history of medicine.

Finally, I wish to pay a special tribute to L. Stephen Jacyna. His scholarship and his mentorship have been of singular importance to me; I have benefitted greatly from his advice, guidance and encouragement over the years.

Many thanks also to Max Stadler, Delia Gavrus, Katja Guenther, Fabio de Sio and Frank Stahnisch. Equally, I owe much to a University of Minnesota cohort, especially John Eyler, Jole Shackelford, Jennifer Gunn, Sally Kohlstedt, and Jacob Steere-Williams. Similarly, Matthew Stanley, Jesse Ballenger, Kenton Kroker, Russell Johnson, Piers J. Hale, Sheila Weiss, Laura Ettinger, Daniel Bradburd, Christopher Robinson, Steve Sturdy, Marjorie Lorch, Stanley Finger, Paul Foley, Tobias Rees, and the late Harry Marks all helped along the way.

A number of neurologists aided me throughout this project. Michael O'Brien was of special importance, both as a source of knowledge for this study and as a second supervisor to an unlikely student of the history of British neurology. The late Ian McDonald shared a number of wonderful stories about British neurology with me. So, too did Alistair Compston, William Goody, Lord Walton, Sir Roger Bannister, Michael Jefferson, Pauline Monro, David Shaw, and Christopher Gardner-Thorpe. Much of this project was supported by a generous fellowship from the Association of British Neurologists. I am grateful to them for an opportunity that launched me into a career as an historian of medicine and especially for the independence they gave me in exploring the history of British neurology.

Although they are too numerous to list here by name, I would also like to thank all of those who opened up their archives to me. I would especially like to mention the descendants of Edwin Bramwell and the descendants of W. Russell Brain. Both families gave me very privileged access to documents that as yet remain beyond the public record. I would also like to express gratitude to everyone at Manchester University Press.

Finally, I would like to express my appreciation to all of those who heroically read or almost read complete versions of this manuscript. My parents, my wife, John C. Burnham, Ellen Dwyer, Delia Gavrus, L. Stephen Jacyna, and two anonymous reviewers at Manchester University Press.

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Introduction: from physician to neurologist

Writing to the Moncrieff-Arnott Professor of Clinical Medicine at Edinburgh University, the American surgeon Harvey Cushing asked Edwin Bramwell: 'Have there ever been any professors of neurology anywhere in Great Britain?' It was September 1934. Cushing was preparing an address for the opening celebration of the newly endowed Montreal Neurological Institute on the necessity for common unity between neurologists, neurosurgeons, and psychiatrists.¹

'Is it', Cushing continued, 'that professors of medicine took an interest in neurology and were loath to give it up to the specialists? Would your father [Byrom Bramwell], for example, have cared to have a neurological unit and give up his general work to the infirmary? And would you have been glad to do the same?' It was curious, Cushing reflected, that although by the close of the nineteenth century there had been professors of mental and nervous diseases in America, the first professorship in neurology had been founded in Philadelphia only in 1903.²

In his reply, Edwin Bramwell wrote: 'There has never been, so far as I am aware, a Professor of Neurology in Great Britain.' He then added:

My father had wider interests in various departments of medicine, and he would I know have been loath to give up his general work in the infirmary and take over a neurological unit. I too would be very sorry now, at any rate, to confine myself to purely neurological Hospital material. I always recall a remark of [William] Gowers, who by the way, was at one time Professor of Clinical Medicine at University College [London], 'a neurologist must be a specialist, but he cannot be an extremist'.³

This remarkable exchange between Harvey Cushing, a founder of modern neurosurgery, and Edwin Bramwell, a neurologist and son of

a founder of modern neurology, frames the larger question this study explores across two centuries of British medical history. Why, despite often-alleged origins in antiquity, did neurology in Britain endeavour for so long to become a formally recognised specialty within general medicine?⁴

To answer this question, it is necessary to follow a complicated story, one involving individuals, institutions, and ideas all located in the complex, shifting social and cultural ferment of nineteenth- and twentieth-century Britain. Over that two-century period physicians and scientists found themselves, often reluctantly, occupying a new role as members of an ever-more specialist and ever-more medical enterprise called neurology. That story of their reluctance not only describes the by now well-worn tale of medical resistance to the advance of specialisation; significantly, it also calls attention to the fact that in Britain neurology was considered a socially preeminent and general form of scientific and medical knowledge. To define neurology as a specialty was therefore to engage in an act approaching contradiction. Neurologists, even after they had become specialists, sought and found ways to circumvent the ideals of specialisation and to continue thinking broadly about the medicine and science of the brain, nerves, and mind. Indeed, it was this propensity to think expansively that would eventually underpin and legitimate the popular rise of neurologically inclined culture in the late twentieth-century.⁵

In the early nineteenth century, neurology was broadly defined and included scientific and clinical knowledge of the mind, brain, and nervous system. Although that definition would narrow over the next two centuries, the world that nineteenth century British 'neurologists' inhabited aspired to medical generalism, gentlemanly science, and universalism. It would thus only be after the mid-twentieth century and with the emergence of neuroscience that neurology would come to be defined solely by its clinical orientation and that its practitioners would be called, one and all, 'the neurologists'.

Any number of histories of neurology, neuroscience, clinical practice, and of medicine and science offer an entrance into this story.⁶ At the same time a sophisticated historical and sociological literature devoted to analysing the specialisation of medicine has made clear the many pitfalls and traps that loom beyond.⁷ Such scholarship provides this account with a map for reconstructing the story through the eyes of the individuals involved, their contemporaries (particularly other

physicians), and the already mature profession of medicine in Britain.⁸ What therefore will become clear by the close of this journey is that the emergence of neurology was not predicated upon the hard work of a few brilliant, like-minded individuals alone. Rather, and surprisingly so, it was through a commitment to general medicine – one held by physicians of all stripes and intentions – that neurology became a demarcated area of clinical practice.

The story of British neurology thus sheds light on the wider history of general medicine in modern-era Britain; it is a story that enlarges upon historian Christopher Lawrence's pioneering identification of a patrician mindset in the habits of the consultant class of medical professionals in modern era Britain.⁹ But there is more besides, for it was in this period that modernity in its many guises appeared. It was a time of steam travel, mass democracy movements, wars, new forms of communication, international banking, and imperialism. In consequence, the story of neurology is also a transnational one, for the practices and knowledge in science and medicine began to circulate rapidly through an epistolary economy comprising professional journals, translated books, conferences, and international philanthropy.¹⁰

The science and medicine of the nervous system in modern Britain

In the history of medicine and science, the brain, nerves, and nervous diseases have long been topics of interest.¹¹ This book accordingly builds on many excellent studies of the medical and scientific fields associated with those organs and diseases.¹² In the specific case of British neurology there are several useful edited volumes, many empirically rich biographical and autobiographical works, and numerous rigorous intellectual histories which have supported this book's general reconceptualisation.¹³ In addition, there are books focusing on neurology in North America and Europe,¹⁴ as well as several recent revisionist works examining the role of culture and society in shaping public and scientific conceptions of the nerves. These works have made clear that those physicians and scientists in Britain (and elsewhere) had long recognised that a proportion of the sick and infirm across the ages suffered from diseases or injuries of the nervous system.¹⁵ It was obvious in the nineteenth century that even

before there was anything akin to a recognisable medical profession, people had observed and feared the signs of these fatal or permanently disabling disorders. The experiences and treatment of, for example, paralysis, epilepsy, blindness, weakness, tremors, and even madness had left behind extensive historical documents, even from as distant a past as antiquity.

In the case of Britain, many physicians and scientists were steeped in a tradition of classical education. It had been obligatory for them to read Latin and Greek. Most were therefore aware that early philosophers like Plato and Aristotle had identified and articulated the relationship between the organs of the nerves and intellect.¹⁶ The contributions of such figures as Hippocrates, Galen, and Avicenna to the doctrine of the nerves were also known in nineteenth-century Britain.¹⁷ Indeed, at the beginning of that century, the discoveries of the ancients remained strongly authoritative. The prominence of that authority would erode only slowly with the advent of a modern medicine that increasingly challenged the authority of bygone epochs.¹⁸

One of the ways in which British physicians and scientists were able to question and transcend the authority of the past was through the invention of a somewhat romantic style of history in the Enlightenment tradition that argued for the positive development of the progress of knowledge.¹⁹ This mode of historical understanding, which drew upon the contributions of such nineteenth-century luminaries as William Whewell, August Comte, and Herbert Spencer, infused much historical writing with teleological motifs and sometimes added a dimension that came to be described famously in the twentieth century as the Whig tradition in the history of science.²⁰ Such a tradition appeared, for instance, in 1902, when scientist and physician David Ferrier opened his Harveian Oration at the Royal College of Physicians with the observation that 'since the time of Harvey ... neurology had consisted largely in speculations as to the seat of the rational soul.'²¹ It was this tradition that at once recognised and aggrandised the contributions of past scientists and physicians while simultaneously creating a lasting foundation for transcending classical authority for neurology.²²

By the close of the nineteenth century, British physicians and scientists had developed a notion of how progress in the study of the brain, spine, and nerves had been achieved. For them, figures in the Renaissance had drawn upon the works of the Greek and Arabic