Introduction

There are two approaches to the history of the medical profession in nineteenth-century Britain. The first considers the struggle for legal protection and social recognition common to many professions.

> [Professions] live by persuasion and propaganda, by claiming that their particular service is indispensable to the client or employer and to society and the state. By these means they hope to raise their status and through it their income, authority and psychic rewards.[1]

This type of history concentrates on legislation and institutions, and on demands of organizations such as the British Medical Association for state restrictions on entry to the profession.[2] The main achievement in this respect was the Medical Act of 1858. It did not change the profession overnight, nor did it prevent unqualified people from practising medicine, but it gave legal privileges to qualified practitioners, established a single medical register and created the General Medical Council to control the standards necessary for registration. Since the Council was composed of leading medical men, the profession also gained a degree of self-regulation. Closely connected to these developments were changes in the medical schools. None restricted entry other than by requiring a basic standard of 'gentlemanly' education and the ability to pay fees, but political pressure and the requirements of the General Medical Council pushed the medical schools towards a more standardized curriculum.

The second approach deals less with institutions than with individuals, and portrays medical men as entrepreneurs, competing for patients and prestige in

[1] Harold Perkin, *The Rise of Professional Society: England Since 1880* (London and New York: Routledge, 2002), p. 6.

[2] For example, Peter Bartrip, *Themselves Writ Large: The British Medical Association 1832–1966* (London: BMJ Publishing Group, 1996); Charles Newman, *The Evolution of Medical Education in the Nineteenth Century* (London: Oxford University Press, 1957); Noel Parry and José Parry, *The Rise of the Medical Profession: A Study in Collective Social Mobility* (London: Croom Helm, 1976); Harold Perkin, *Origins of Modern English Society* (London: Routledge, 1986), pp. 252–70; Ivan Waddington, *The Medical Profession in the Industrial Revolution* (Dublin: Gill & Macmillan, 1984).

the 'medical marketplace'.[3] A few doctors commanded handsome fees from well-to-do patients, but most had to earn their incomes from several sources. Public, industrial and commercial appointments expanded in the nineteenth century, and offered opportunities to medical men, but rewards varied from badly paid contracts under the Poor Law to substantial honoraria for the medical officers of large life assurance companies.[4] The number and mix of paid and unpaid activities undertaken by a practitioner was a fair guide to his status in the profession, especially his election to an honorary post at a prestigious charitable hospital. In this competitive world, ability was important, but so were family resources and patronage. Some capital was needed to establish a practice, whether speculative or purchased. A doctor could set up from scratch in unknown territory, but by the later nineteenth century it was more common to purchase the goodwill of an existing practice when its incumbent moved on or retired. Good local connections were always an advantage, and medical incomes remained insecure until the National Insurance Act of 1911 offered a steady income to doctors who chose to accept it.

This book considers a group of doctors who entered the medical profession in the late nineteenth century and explores the paradoxical nature of a profession of competitive entrepreneurs who also shared remarkably strong communal loyalties. Resolution of the paradox lies in the sensitive network of personal relationships among practitioners that enabled patronage, collective action and easy introduction between doctors in many countries and at various stages of a career. As apprenticeship ceased to be the main route into practice, the medical schools conferred identity and status on medical men, and in doing so, created durable networks between students, and between students and their teachers.[5] These networks can be identified and their significance traced by following the fortunes of a large group of medical students as they moved through professional life between the early 1870s and the 1920s. Their careers began at two of the most important medical schools in the United Kingdom. Edinburgh University was the largest single medical school, Glasgow the second largest; and in the 1870s their intake accounted for over a fifth of the nation's medical

[3] Anne Digby, *Making a Medical Living: Doctors and Patients in the English Market for Medicine, 1720–1911* (Cambridge: Cambridge University Press, 1994); Irvine Loudon, *Medical Care and the General Practitioner 1750–1850* (Oxford: Clarendon Press, 1986); M. Jeanne Peterson, *The Medical Profession in Mid-Victorian London* (Berkeley: University of California Press, 1978). These authors, while focusing on the nature of practice, also indicate how doctors contributed to, and were affected by, legislation governing the whole profession.

[4] Marguerite Dupree and M. Anne Crowther, 'A profile of the medical profession in Scotland in the early twentieth century: The *Medical Directory* as a historical source', *Bull. Hist. Med.* 65 (1991), 209–33; Marguerite W. Dupree, 'Other than healing: Medical practitioners and the business of life assurance during the nineteenth and early twentieth centuries', *SHM* 10 (1997), 79–103.

[5] Loudon, *Medical Care and the General Practitioner*, p. 41.

students.[6] The lives of these Scottish-trained doctors show how individuals responded to some of the major medical developments of the period, and reveal the group dynamics of professional life.

An objection to this type of study is that, because it uses the example of networks formed at Scottish universities, it exaggerates the coherence of the group. Scots are often perceived as clannish, and their migratory habits carry clan loyalties overseas. Without disputing this feature of the national character, it is clear that loyalty to the medical schools was not determined by Scottish background. Twenty-nine per cent of students at Glasgow and 62 per cent of those at Edinburgh were not born in Scotland; but since the annual intake of medical students at Edinburgh was then twice as large as Glasgow's, the medical students at these two Scottish universities in the late 1860s and early 1870s divided almost exactly into equal proportions of Scots and non-Scots. A pictorial representation of this occurs in a photograph of senior students at the Edinburgh Royal Infirmary in 1875 (Plate Intro. 1). Ten of the young men are members of the group selected for this study.

Although they do not quite reflect the statistical background of the whole student body, their origins are representative. Three were born within a couple of miles of the Royal Infirmary and one in the Highlands of Scotland. There were two Englishmen, one Welshman, one Irishman, and a Canadian. The house surgeon, George Rice, sitting in the centre of the photograph was only 27. He too was a member of the group of practitioners selected, having recently qualified in medicine at Edinburgh. Fifty years later he would still be in the British *Medical Directory* after a lifetime in general practice in Surrey. The career details in his last *Directory* entry in 1935, the year of his death, might imply to a casual reader that he was an 'English' doctor; but his list of qualifications from Edinburgh would also suggest that he was a 'Scottish' graduate. Further reference to his university record and his obituary in the *British Medical Journal* reveal that he was an American, born in Troy, New York State; but none of the sources mentions the point, obvious from his photograph, that he was black.

The careers of these ten students also encompass some of the main concerns of this book. The Irish student did not qualify, and disappeared from medical history. Of the rest, only two stayed in Scotland, one returning to his roots as a Highland general practitioner, the other spending his life in the city where he was born as a professor at the University of Edinburgh. The remainder can be found at various times in Cambridge, Devon, Manchester, Canada, France and South Africa, these representing only a few of the areas colonised by Scottish-trained practitioners. The photograph is also skewed towards the professional elite, because students had to compete for the position of clerk or dresser in

[6] James Bradley, Anne Crowther and Marguerite Dupree, 'Mobility and selection in Scottish university medical education, 1858–1886', *Med. Hist.* 40 (1996), 4.

CLERKS AND DRESSERS, 1875.

W. C. Lawson. De La Vera.
F. M. Caird. H. D. R. Kingston. John Stewart. Alex. Hendry. Roger M'Neill. William Oliphant. Nathan Murdoch
James Scott. Thos. H. Watson. George Rice, M.B., C.M. A. Emyrs Jones. G. Sims Woodhead. David Berry Hart.
House Surgeon.

Plate Intro. 1. Lister's clerks and dressers, Edinburgh Royal Infirmary, 1875.

the infirmary, and only the most promising were selected. It shows three future professors of surgery and a professor of pathology, a colonial medical officer, a practitioner working in Toulouse, the medical officer of Dartmoor prison, and three general practitioners based in England. Although a similar photograph from Glasgow University would probably include a larger proportion of native Scots, their careers would be similarly diverse. The idea of a 'Scottish' student is therefore problematic. Although Scots have made a contribution to the medical profession disproportionate to the size of their home population, it was the medical school, rather than Scotland, that bound the group together.

We began this project as a collective biography of the British profession in the late nineteenth century, starting with their social background and education and following them into different types of career. We selected approximately 1,000 students from each university who began their studies during the years 1866 to 1874.[7] These years seemed suitable because the profession had by

[7] Years vary because of the different sizes of the medical schools: the Glasgow University group comprises 974 students who first matriculated in the medical faculty between 1866–7 and 1874–5;

then adjusted to the requirements of the Medical Act of 1858. These students, unlike their predecessors, were tied to specific patterns of study laid down by the General Medical Council. Their education was still highly flexible, and allowed for more movement between medical schools than is now possible. They represented a generation whose main work was done before the National Insurance Act of 1911 began to bind the British doctor to the state, and the profession they entered was still highly competitive and individualistic. We also wished to explore the many careers open to medical students in this period, and the factors that propelled students who sat together in the same classrooms into diverging paths. They were divided not only by income and geography, but also by their professional interests, since the growth of medical specialties was a characteristic of the period.[8] In a wealthier economy, more practitioners could become specialists, not only in well-established areas like obstetrics, mental diseases or ophthalmology, but also in new fields. It became obvious, however, that confining the story to students who remained in Britain would ignore one of the most important features of the Scottish-trained profession – their international origins and widespread dispersal. These were the years of high imperialism, in which the medical profession played an important part. Britain trained doctors for colonial settlements and imperial administrations, as well as for the armed forces and medical missions. Medical networks operated across national boundaries, and the role of the doctor as an agent of Empire is a story still unfolding.[9] The decision to emigrate was one of many possible routes into medical practice.

Any selected group of students in the nineteenth century could be discussed in the ways just described, but each group has its own characteristics if the focus shifts to the nature and application of medical knowledge over time. This group is individual because it witnessed and participated in an important change in medical practice. Most of the students experienced the beginning of a surgical revolution when they attended the classes of Joseph Lister, who was

the Edinburgh University group includes 1,025 students who first matriculated in the medical faculty between 1868–9 and 1873–4. For details, see Appendix 1.

[8] For example, Roger Cooter, *Surgery and Society in Peace and War: Orthopaedics and the Organization of Modern Medicine 1880–1948* (Basingstoke: Macmillan, 1993); Lindsay Granshaw, '"Fame and fortune by means of bricks and mortar": The medical profession and specialist hospitals in Britain 1800–1948', in Lindsay Granshaw and Roy Porter (eds.), *The Hospital in History* (London: Routledge, 1989), pp. 199–216; George Weisz, 'Medical directories and medical specialization in France, Britain, and the United States', *Bull. Hist. Med.* 71 (1997), 23–68.

[9] Among the most important recent histories, see David Arnold, *Colonizing the Body: State Medicine and Epidemic Disease in Nineteenth-Century India* (Berkeley and London: University of California Press, 1993); Harriet Deacon, Howard Phillips and Elizabeth van Heyningen (eds.), *The Cape Doctor in the Nineteenth Century: A Social History* (Amsterdam and New York: Rodopi, 2004); Mark Harrison, *Public Health in British India: Anglo-Indian Preventive Medicine 1859–1914* (Cambridge: Cambridge University Press, 1994); Megan Vaughan, *Curing Their Ills: Colonial Power and African Illness* (Cambridge: Polity, 1991).

Professor of Surgery in the University of Glasgow from 1861 to 1869 and then Professor of Clinical Surgery in the University of Edinburgh until 1877 (Plate Intro. 2).

By following the migrations of Lister's former students, it is possible to trace the spread of his ideas at home and abroad, especially as the students wrote copiously about their application of his methods to different types of practice in hospitals, in all kinds of domestic surroundings, on board ship, and on the battlefield. Surgery was not confined to hospitals, nor to specialists, and surgical experiment by ordinary practitioners was possible before the growth of specialization in British medicine divided surgery from general practice.[10] The work of Lister's students contributes to the well-known story of antiseptic surgery; but Lister also acts as a luminous marker, making more visible the ways in which medical knowledge was transmitted.

Lister's influence on his students also raises questions concerning the relation between science and medicine in the nineteenth century. Lister was hailed during his lifetime and afterwards as a 'scientific' surgeon; but the meaning of 'science' in this period is contested.[11] It was increasingly associated with laboratory-based investigation, yet British hospitals were slow to employ such methods, and elite physicians often preferred clinical experience to laboratory tests as a diagnostic tool.[12] Their respect for 'science' was often rhetorical rather than substantial. Lister's approach to surgery was termed 'scientific', yet his bacteriological studies, usually conducted at home, bore little resemblance to the way studies were carried out in the government-funded laboratories of Germany. Each hospital had its own traditions. Lister's interest in pathology survived well in Glasgow, where, as Jacyna shows, consultant surgeons in the Western Infirmary (many of them Lister's former students) made effective use of the pathological laboratory.[13] But, approaching the subject from a different direction, Bynum and others have argued that 'science' should not be defined too narrowly. With the rise of scientific education in the medical schools, a medical approach to science might vary from sophisticated laboratory studies to limited but enthusiastic experiments by general practitioners. This book deals with

[10] For full accounts, see Frank Honigsbaum, *The Division in British Medicine: A History of the Separation of General Practice from Hospital Care 1911–1968* (London: Kogan Page, 1979) and Rosemary Stevens, *Medical Practice in Modern England: The Impact of Specialization and the State* (New Haven: Yale University Press, 1966).

[11] For an overview of the debate, see William E. Bynum, *Science and the Practice of Medicine in the Nineteenth Century* (Cambridge: Cambridge University Press, 1994); S. E. D. Shortt, 'Physicians, science, and status: Issues in professionalization of Anglo-American medicine in the nineteenth century', *Med. Hist.* 27 (1983); John Harley Warner, 'Science in medicine', *Osiris,* 2nd series 1 (1985).

[12] Christopher Lawrence, 'Incommunicable knowledge: Science, technology and the clinical art in Britain 1850–1914', *Jnl. Contemporary History* 20 (1985), 503–20.

[13] L. S. Jacyna, 'The laboratory and the clinic: The impact of pathology on surgical diagnosis in the Glasgow Western Infirmary 1875–1910', *Bull. Hist. Med.* 62 (1988), 384–406.

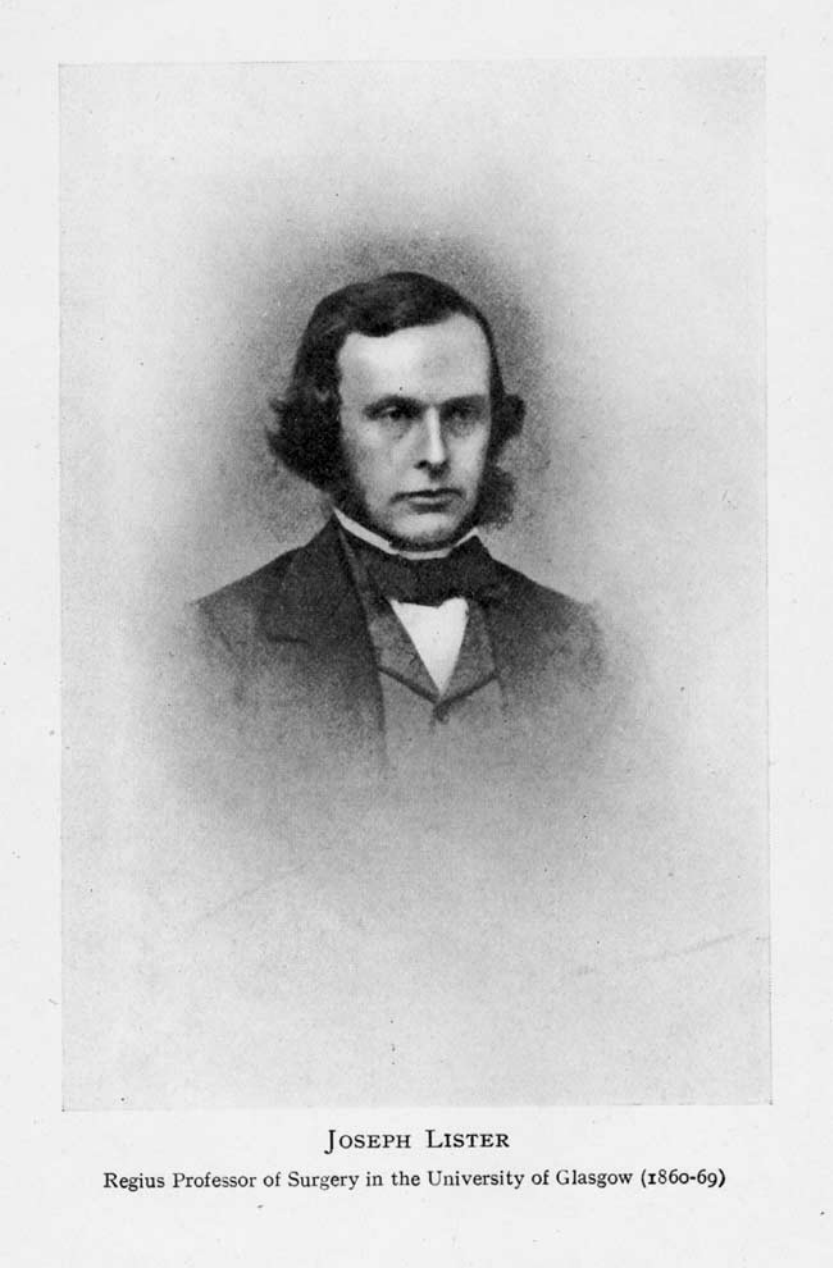

Plate Intro. 2. Joseph Lister (1827–1912), while Regius Professor of Surgery, University of Glasgow.

'high' and 'low' science, as employed by Lister's former students in specialist and general practice.

Edinburgh students also witnessed the beginning of another revolution: the arrival in 1869 of the first women students in a British medical school. Sophia Jex-Blake and her companions failed to persuade the University of Edinburgh to grant them medical degrees, but they went on to establish their own medical networks, particularly important for mutual support. The fortunes of Lister's men are therefore juxtaposed with the much smaller group of Jex-Blake's women, who were excluded from Lister's classes, and whose careers followed the few channels open to them in a masculine profession.

This book draws on both quantitative and qualitative sources. It begins when the students entered their medical school and gave information about themselves for the matriculation records. These records provided the basis for statistics on social and geographic origins, ages and education, and were then linked with other sources. Chief amongst these were the *Medical Register*, to identify which students qualified as medical practitioners; the *Medical Directory*, for basic details about later careers; and probate records, wills and inventories, for the value and dispersal of their estates at the end of their lives. Obituaries were another type of source; they offered detailed and subjective case histories, which we were able to supplement with private papers, recollections and other personal accounts. Many of the doctors in this study published in the medical journals, which contain a surprising amount of personal information and opinions amongst the professional communications. Open to obscure practitioners and intellectual luminaries alike, the often disputatious medical press well represented a competitive profession. Some aspects of the history of the profession could be quantified; others required the testimony of individual voices. Certain types of information, such as dates of birth and medical qualifications, allow quantification without much fear of contradiction from even the most rigorous postmodern analyst. Other material, such as career descriptions, has been quantified only after subjective interpretation of several sources. Since these interpretations inform many sections of the book, they are described in detail in Appendix 1.

A particular danger of sources like medical obituaries is their tendency to celebrate 'success' and exaggerate the homogeneity of the profession. We tried to avoid imposing rigid interpretations on complex and fragmentary evidence, and we do not suggest that this large group always acted in a unified or coherent fashion. Rather, they formed distinct clusters, in which early associations, and loyalty to the medical school, were carried into the many professional associations they joined and created. In tracing unconventional practitioners, we were aided by new electronic sources such as the *Times* and the *Scotsman* digital archives, which balance obituaries of the successful with medical scandals, bankruptcies and suicides. Our sources have limitations, chiefly the lack of systematic

information on incomes, though we describe the lifestyles of individual doctors and utilize their wills as a guide to prosperity. For a comprehensive account of medical incomes in this period, we refer the reader to another work in this series, Anne Digby's *Making a Medical Living* (1994).

The first four chapters follow the students' careers in a chronological narrative, from their arrival at university to their first career steps after qualifying in medicine. These chapters emphasize the growth of personal networks in the early years of a medical career, and Chapter 5 continues this argument in the special case of the medical women. The central section of the book, Chapters 6 to 9, concentrates on the major career paths of these students, including medical specialties, the application of Listerism in various types of practice, and the networks of Listerian practitioners outside Britain. The final chapter returns to a chronological account of their final years, particularly in times of war, when the role of Lister's old students in the conflicts of the early twentieth century revealed the persistence of the antiseptic ideal and exposed its weaknesses. The story concludes with their wills and bequests, which, in some cases, are also the last evidence of durable relationships formed at the medical schools. At the times of their deaths, many of these doctors, whether obscure or renowned, were viewed by their successors as links to the period of surgical revolution. This book tries to define one medical generation, at a particularly significant period in the history of imperial power and medical knowledge.

1 Arrivals

This story begins with 1,938 students who arrived at the two largest centres of medical education in Britain in the late 1860s and early 1870s. Such a formidable number is difficult to introduce, and so it seems best to meet them as they filled in the matriculation slips of Glasgow and Edinburgh universities, from the perspective of the Registrar's clerk who collected the university's matriculation fee of £1 for the winter session. In 1866, the students appearing before him in mid-October at the University of Glasgow formed an apparently random line: students of Arts, Divinity, Medicine and Law intermingled, from all years of study. They presented themselves at the cluttered and grimy buildings of the Old College in the High Street, once an appropriate medieval site near the Cathedral and the Royal Infirmary, but now a noisome quarter of the industrial city (Plate 1.1). Cramped and overcrowded classrooms were fringed with a 'bare, black, and squalid' stretch of garden no longer capable of growing botanical specimens.[1]

That October there were 92 new medical students, and the first to sign were David Huston and James Paul. The university required some personal information: they were asked their age and place of birth, and also their fathers' occupations.[2] David Huston was 17 and James Paul 23. Medical students, in particular, needed to record their ages, because the Medical Act of 1858 prevented their qualifying in medicine before the age of 21; but the university also wanted to know their place of birth because this determined which of the four electoral 'nations' they belonged to in the forthcoming contest for Rector of the University. Elections for this largely ceremonial post were an exciting and sometimes riotous event in the student calendar, and on this occasion the candidates were W. E. Gladstone and John Inglis, Scotland's leading judge. Three of the electoral 'nations' were Scottish, but Huston belonged to the 'Natio Loudoniana', encompassing the whole world outside Scotland. He was a farmer's son, born in Ireland. Paul, son of a road overseer, belonged to the local

[1] Andrew Lang, 'Glasgow in 1864', in *The Book of the Jubilee: In Commemoration of the Ninth Jubilee of the University of Glasgow 1451–1901* (Glasgow: Maclehose, 1901), p. 26.
[2] Unfortunately, current addresses were not recorded at that period.