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**MEDICAL STUDENTS IN
ENGLAND AND FRANCE
1815-1858**

A COMPARATIVE STUDY



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ABBREVIATIONS

Throughout this thesis the following abbreviations are used :

AN: Archives nationales (Paris).

BIUM: Bibliothèque Inter-Universitaire de Médecine (Paris).

FRCP : Fellowship of the Royal College of Physicians.

LSA: Licence of the Society of Apothecaries.

MB: Bachelor in Medicine.

MD: Doctor in Medicine (or *Docteur en Médecine*).

MRCP: Membership of the Royal College of Physicians.

MRCS: Membership of the Royal College of Surgeons (of London, 1800-1843; of England, from 1843).

RSCME: [England. Parliament. House of Commons], *Report from the Select Committee on Medical Education and Practice of the Medical Profession in the United Kingdom, with the Minutes of Evidence, Appendices and Indices* (London, 1834).

UCL: University College, London.

WLHUM: Wellcome Library for the History and Understanding of Medicine (London).

Translations

All translations from French are my own.

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INTRODUCTION

The student of medicine generally works harder than most other students, for more hours and more in each hour. Next, he is not a solitary thinker, but does much of his work in contact with his fellow students, and so learns to give and take, and to consider others more than the lonely mathematician or student of the classics, to whose studies the presence of another human being is no help and may be a serious hindrance. He is, I think, ready to listen to his teacher, but with the firm resolution to accept only that part of what he is taught which convinces him of its truth.¹

¹ N. Moore, *The History of the Abernethian Society of St Bartholomew's Hospital. An Address Delivered in the Anatomical Theatre on the Occasion of the Centenary of the Society, May 1, 1895* (London, 1895), 3.

In his 1864 introductory address to the students at University College London, the anatomist Richard Quain presented 1815 as a significant milestone in a century of improvements to English medicine. To most British medical historians, 1815 represents the passing of the Apothecaries' Act, which raised medical practitioners' educational levels by requiring those who sought to practise without a university degree to be examined for a licence. For Quain, however, 1815 denoted first and foremost the end of the conflict between France and England, which gave rise to a new era of intellectual exchange between the two countries. The return of peace enabled medical men to discover the progress achieved on the other side of the Channel. A great number of Englishmen travelled to Paris where they found a fully organised and centralised system of education and hospital care, which afforded ample means for anatomical and clinical studies.² Among the few Frenchmen who made the opposite journey was Philibert Joseph Roux, a surgeon at the Paris Charité hospital, who visited London in August 1814. While Roux acknowledged that France and England had equally extended the boundaries of surgery and even recognised that London boasted more able surgeons than Paris, he asserted that the rational organisation of the Paris Faculty of Medicine presented more guarantees of adequate training than the London schools.³

Differences between the organisation of medical instruction in England and France were more striking in 1815 than they had been fifty years before or would be fifty years later. In the early eighteenth century, tradition held that the profession was, in both countries, divided between the medical art, surgical craft and pharmaceutical trade. Physicians, the elite of the profession, offered medical advice to the richest members of the population. Their long and costly university training recognised a broad education and thorough knowledge of the classical authors but required social introductions and a command of Latin and Greek, which limited the

² R. Quain, *Observations on Medical Education. Being the Introductory Lecture in the Faculty of University College, London, for the Session 1864-1865* (London, 1865), 14-15.

³ P. J. Roux, *A Narrative of a Journey to London in 1814; or a Parallel of the English and French Surgery; Preceded by some Observations on the London Hospitals* (London, 1816).

number of qualifying physicians to only a handful of gentlemen per year.⁴ Surgeons carried out common operations such as bleedings and resections of fractures and occasionally attempted more dangerous procedures whilst apothecaries, who formed the lowest level of the medical community, prepared physicians' prescriptions and compounded and sold their own medicines. Like most members of crafts and trades, both surgeons and apothecaries underwent a period of practical instruction often limited to an apprenticeship but sometimes complemented by practical and theoretical courses. Whereas three corporations (the Royal College of Physicians, the Company of Barbers-Surgeons and the Worshipful Society of Apothecaries) each governed a branch of the English medical profession, France was divided into several local guilds with various rules and prerogatives. In both countries, however, practice in the remote countryside remained more or less unregulated.

Despite the legal division between medicine, surgery and pharmacy, the boundaries between the three disciplines were often difficult to determine. Surgeons and apothecaries, who frequently combined the practice of medicine, surgery, pharmacy and midwifery, attended to the majority of the population. In England, apothecaries began to practise medicine regularly in the seventeenth century, an evolution sanctioned in 1704 by the House of Lords.⁵ Many surgeons also began offering medical advice and a class of surgeon-apothecaries developed, which offered complete medical care to their patients. A similar evolution occurred on a smaller scale in France, marked by the rise of *chirurgiens-apothicaires*. However, most French apothecaries continued to limit their occupation to pharmacy and only surgeons focused their efforts on both medical and surgical care.⁶

⁴ Of the sixteen French medical faculties, only four trained a significant number of students, while in England prospective doctors graduated at either Oxford or Cambridge, which possessed only small medical faculties.

⁵ The House of Lords allowed apothecaries to offer medical advice and prescribe their own medicines, but prohibited them from charging for medical attention (Rose case, 1704): I. Loudon, *Medical Care and the General Practitioner, 1750-1850* (Oxford, 1986), 22.

⁶ The situation was greatly similar in Scotland.

Out of the expansion of science during the eighteenth century emerged a new surgical paradigm which advocated a more rational approach to nature, thus challenging the traditional professional structure. Surgeons used their practical experience of the human body to establish a foundation for their discipline based on solid anatomical knowledge gathered through direct observation. Their quest for scientific status coincided with an underlying ambition to gain greater social recognition. The French monarchy favourably received requests for better instruction and professional standing. It encouraged the creation of the Royal Academy of Surgery (1731/1748), the generalisation of surgical training (1736), and the emancipation of Parisian surgeons from the Company of Barbers, which freed the College of Surgery from the control of physicians and raised surgery to the rank of a liberal profession (1743).⁷ In the French provinces, a network of surgical colleges parallel to that of the medical faculties slowly emerged. These institutions endeavoured, with more limited means, to emulate the teaching provided by the Paris College, and in particular by the anatomical school (École pratique de Dissection) created there in 1750.⁸

In England, the progress of surgery was restrained by the Company of Barber-Surgeons' monopoly on dissections until an independent Company of Surgeons was established in 1745. Anatomical and surgical instruction developed under the influence of men like William Cheselden and William Hunter. Unlike France, the English state did not intervene to foster greater improvements in surgical science. In the early 1760s, Hunter's plan for a national school of anatomy, influenced by the Paris College of Surgery, failed to gain approval from the royal authorities.⁹ The government's position led to the expansion of Hunter's school, which he relocated to Great Windmill Street, and encouraged the creation of other private courses in

⁷ The 1743 ordinance required the surgical elite, the masters of surgery, to possess the Master of Arts degree : D. Vess, *Medical Revolution in France, 1789-1796* (Gainesville, 1975), 17.

⁸ O. Faure, *Histoire sociale de la médecine (XVIII^e-XX^e siècles)* (Paris, 1994), 44-5. T. Gelfand, 'The "Paris Manner" of Dissection: Student Anatomical Dissection in Early Eighteenth-Century Paris', *Bulletin of the History of Medicine*, 46 (1972), 99-130; M. J. Imbault-Huart, *L'École pratique de Dissection de Paris de 1750 à 1822 ou l'influence du concept de médecine pratique et de médecine d'observation dans l'enseignement médico-chirurgical au XVIII^e siècle et au début du XIX^e siècle* (Lille, 1975). In French the word *collège* denoted a teaching establishment, not a corporation.

⁹ S. C. Thompson, 'The Great Windmill Street school', *Bulletin of the History of Medicine*, 12 (1942), 379-80.

anatomy and surgery. However, the legal restrictions limiting dissections to the bodies of condemned criminals hindered efforts to provide anatomical and surgical instruction on a large scale and English surgeons took longer than their French counterparts to gain formal recognition. While French surgical progress was rapidly institutionalised, the London Company of Surgeons had to wait until 1800 to receive a charter as the Royal College of Surgeons of London, a title which put it virtually on a par with the Royal College of Physicians.

The Enlightenment's rational perspective also encouraged physicians to complement their theoretical university education with practical courses of anatomy and clinical medicine. Unproven physiological theories gradually lost their dominance as physicians meticulously studied the symptoms displayed by hospital patients in order to define and classify diseases. In 1714, Hermann Boerhaave pioneered bedside lessons in the hospital attached to the university of Leiden. His didactic method was then adopted in the study of surgical and medical cases in Edinburgh, Vienna and Padua, before reaching Paris and London towards the end of the century.¹⁰ In Paris, Louis Desbois de Rochefort, a physician at the Charité, offered regular clinical lessons in his wards from the late 1770s, and was soon imitated by the surgeon Pierre Joseph Desault at the Hôtel-Dieu.¹¹ By 1782, the Paris College of Surgery similarly required its students to attend the lessons given in its own hospital. London clinical medicine was comparatively slow to develop. The physicians of the main hospitals, such as St Bartholomew's, were reluctant to open their wards to regular apothecaries' apprentices and reserved their teaching to a handful of university students. However, the more willing dispensary physicians, who often obtained their instruction in Scotland and the Continent rather than in the more conservative English universities, provided very popular clinical lessons. John Coakley Lettsom,

¹⁰ G. B. Risse, 'Clinical Instruction: the Boerhaavian Tradition in Leyden, Edinburgh, Vienna and Padua', in H. Beukers and J. Molls (eds.), *Clinical Teaching, Past and Present* (Amsterdam, 1989), 1-19.

¹¹ M. Wirriot, *L'enseignement clinique dans les hôpitaux de Paris entre 1794 et 1848* (Paris, 1970), 23-4.

for example, founder of the Aldersgate Street Dispensary in 1770, is credited with giving the first regular courses in clinical medicine in London.¹²

As medicine and surgery expanded their traditional fields of investigation, their realms of study increasingly overlapped. By opening corpses, surgeons not only developed their understanding of anatomy and physiology, they also discovered how pathological phenomena appeared in the sick body and expanded their insight into medical affections. Their advances in anatomy, surgery and midwifery encouraged them to seek the medical knowledge which had previously—in theory at least—belonged solely to physicians. Meanwhile, by combining symptomatology with the understanding of localised pathology developed by surgeons, physicians were able to study disease more efficiently.¹³

The ancient distinction between medicine and surgery thus came to be criticised by surgeons and physicians alike. In France, reformers within the Société royale de Médecine argued that medicine and surgery had been unnecessarily divided for centuries and were in reality two inseparable branches of the same discipline.¹⁴ Félix Vicq d'Azyr, for example, insisted upon modelling medical education on the more practical surgical instruction and advocated a joint curriculum in medicine and surgery like the one available at the Montpellier faculty since 1732. The traditionalist Paris Faculty, however, was reluctant to alter its teaching.¹⁵

The Revolutionary period provided a unique opportunity to drastically reform medical education and the medical profession. In accordance with the new government's views, the structure of society and its educational system, accused of perpetuating the privileges of birth and fortune, were re-organised more democratically. In March 1791, the d'Allarde law abolished

¹² Lettsom designed a complete programme of studies, which included clinical lessons, but was unable to put it into practice until he was joined by Henry Clutterbuck in 1807: U. Tröhler, 'The Doctor as Naturalist: The Idea and Practice of Clinical Teaching and Research in British Polyclinics, 1770-1850', in Beukers and Molls, *Clinical Teaching*, 23-4.

¹³ O. Temkin, 'The Role of Surgery in the Rise of Modern Medical Thought', *Bulletin of the History of Medicine*, 25 (1951), 248-59.

¹⁴ The Société royale de Médecine was created to inform the government on a range of health issues (1776).

¹⁵ Faure, *Histoire sociale de la médecine*, 49.

all corporations, including the medical and surgical guilds. As a result, anyone who paid a practice tax (*patente*) was allowed to offer medical advice and perform surgical operations. The abolition of all teaching institutions, including the medical faculties and colleges of surgery, on 18 August 1792, left France, then at war with several of its neighbours, without a source of skilled medical men for the army and the navy.¹⁶ The government therefore set out to create new medical schools tailored to its needs. Having entirely dismantled the previous educational system, the legislative assemblies sought to create state-run teaching establishments inspired by the ideals of competitive access, democratisation, meritocracy and high standards. Freed from the corporative reluctance of the former teaching bodies, the physician Antoine Fourcroy, who drafted the bill on the new medical schools, was able to follow the reformers' ambitious programme. On 4 December 1794, three Schools of Health (*écoles de santé*) were created in Paris, Montpellier and Strasbourg, to train military surgeons quickly and thoroughly.¹⁷ The name '*écoles de santé*', without specific reference either to medicine or surgery, symbolised the fusion between the two disciplines. To provide students with a complete education, these schools combined the theoretical knowledge of physicians with the anatomical insight of surgeons and the bedside experience of both.¹⁸ A new structure of medical education therefore emerged amalgamating medicine and surgery into a single programme at the *écoles de santé* and creating *écoles de pharmacie* to train apothecaries (1803). However, the *écoles de santé* were not born out of an endeavour to create a complete national system of medical education. They could neither replace the former network of medical faculties and surgical colleges nor instruct the entire medical profession. Intended for the elite of hospital practitioners and military surgeons, they only accepted carefully

¹⁶ G. Picard, 'La Réglementation des études médicales en France; son évolution de la Révolution à nos jours' (Université de Paris, thèse de doctorat en médecine, 1967), 4.

¹⁷ 'These schools will be designed to train medical officers for the service of the hospitals, and especially for the service of military and naval hospitals.' (Law of 4 December 1794, Art. 1).

¹⁸ Practice and manipulation (chemical experiments, anatomical dissections, surgical operations and apparatus) were to be joined to theory. 'Little reading, much seeing and much doing. This is what will be the basis of the new teaching': E. H. Ackerknecht, *La Médecine hospitalière à Paris (1794-1848)* (Paris, 1986), 47 [Originally published as *Medicine at the Paris Hospital (1794-1848)* (Baltimore, 1967)]. In 1797, the Paris École de Santé, which had been allocated the buildings of the former College of Surgery, also incorporated the École pratique de Dissection which had continued to exist *de facto*: Imbault-Huart, *L'École pratique de Dissection*, 61.

selected students who received free instruction in return for their service in the military.¹⁹ Yet once these schools were authorised to receive fee-paying students in September 1797, they quickly attracted a large number of pupils from all over the country.²⁰

Despite their successful training, the *écoles de santé* could not confer degrees, which, as a matter of course, had disappeared with the pre-revolutionary universities. Former students were thus unable to distinguish themselves from the mass of medical practitioners who received only very basic training. Furthermore, growing public concerns over the scores of charlatans who freely practised medicine with little or no knowledge, demanded better control of the medical profession. The decree of 11 March 1803 therefore ended the complete deregulation of medicine by creating a dual system of practice. The degrees of Doctor of Medicine and Doctor of Surgery were re-established, defining the first category of practitioners entitled to practise both medicine and surgery anywhere in France. The *écoles de santé*, already the established training institutions for the medical elite, would award these degrees. A second, lower category of practitioners, the *officiers de santé*, were required to pursue a more modest curriculum of studies and undertake a basic examination which only entitled them to practise in a specific region (*département*) and perform simple surgical operations. For the first time, the practice of medicine and surgery was completely and uniformly regulated across France.

The degree-granting capacity which the 1803 law assigned to the *écoles de santé* was reaffirmed when these schools were integrated into the Université de France in 1806, and renamed '*facultés de médecine*' in 1808. However, their new role in the provision of instruction

¹⁹ The drastic reduction in the number of teaching institutions from 16 medical faculties and 15 surgical schools in 1789 to just 3 *écoles de santé* demonstrates that these schools were only expected to train a limited number of students. The Paris school, for example, was only supposed to receive 300 pupils. Fourcroy's initial plan even suggested only a single Central School of Health in Paris: Faure, *Histoire sociale de la médecine*, 67.

²⁰ P. Huard and M. J. Imbault-Huart, 'Concepts et réalités de l'éducation et de la profession médico-chirurgicales pendant la Révolution', *Journal des savants* (1973), 126-50. The Paris school, which provided entrance into the large Hôtel-Dieu and Charité hospitals, was particularly sought after. In 1798, it already had 1200 students: [École de Santé de Paris], *De l'État actuel de l'École de Santé de Paris* (Paris, 1798). The Parisian hospitals were also the object of reform in the early nineteenth century. Having nationalised all charitable institutions and Church property, the state was now responsible for hospital care. It unified the Parisian hospitals and hospices under the sole administration of the General Council of the Civil Hospitals and Hospices of Paris in January 1801. This integration allowed the creation of the *Internat* in 1802, by which the Council recruited students to fill the junior hospital positions: Wiriot, *L'Enseignement clinique*, 39.

expanded well beyond what they had been designed for, and overcrowding soon became one of the features of the Paris school. Although the creation of the *officiat* recognised that a great proportion of practitioners did not possess the preliminary education required by the thorough instruction delivered in the *écoles de santé*, this concession to the reality of the medical profession, ill-fitted to the ideal plans of Revolutionary reformers, was not accompanied by a secondary network of medical schools.²¹ In 1806-1807 a series of decrees therefore recognised as municipal ‘Courses of medical instruction’ some of the lectures and demonstrations which had been re-established by private and municipal initiatives in the major provincial towns.²² Deprived of the faculty status, these courses could not confer the degree of Doctor and consequently directed their programmes towards the *officiat*.²³ In 1820 they were placed under the government’s authority and transformed into ‘secondary schools of medicine’, before being renamed ‘preparatory schools of medicine’ in 1840. These small, poorly subsidised institutions, served by unmotivated professors, were, until the 1850s, a rather obscure complement to the *écoles de santé*. Several bills to Parliament suggested reform by reducing their number and either transforming them into faculties or assigning them a better role in the provision of medical instruction. However, the faculties did not want to share their powers with potential rivals and blocked these efforts. Furthermore, between 1815 and 1848 the political regimes were influenced either by strong conservatism, which supported two classes of practitioners, or liberalism, which frowned upon state intervention. By the time a consensus arose on the abolition of the *officiat* in the 1840s, the preparatory schools had strengthened themselves and become almost indispensable.

²¹ There never was a consensus on the need for a second category of practitioners, nor on their level of education: J. Bescond, ‘Genèse et devenir de deux ordres de praticiens en France. Les Officiers de santé de 1803 à 1892’ (Université Paris-VII, thèse de doctorat en épistémologie et histoire des sciences, 1998).

²² These courses had been founded after 1794 to offer instruction to those medical students who were not selected for the *écoles de santé*.

²³ Faure, *Histoire sociale de la Médecine*, 72; O. Faure, ‘Cours pratiques et écoles secondaires de médecine en France au début du XIX^e siècle: une expérience révolutionnaire étranglée?’, *Bulletin du Centre Pierre Léon*, 1-2 (1998), 9-27. Faure argues that, although these courses were recognised by the state, they were purposefully confined to elementary lessons, which prevented them from developing further.

In comparison, by the mid-eighteenth century, English medical and surgical instruction was not structured by a unified set of institutions. The universities of Oxford and Cambridge dispensed medical degrees to only a handful of students. Although some professors, like William Heberden in Cambridge, designed a thorough curriculum, medical teaching remained marginalized and underdeveloped, with few if any practical courses.²⁴ The University of Edinburgh provided training in both surgery and medicine for prospective physicians and surgeons, but London itself did not possess a university until 1836. The London corporations offered only a few courses, preferring to focus their attention on the regulation of the profession. Furthermore, the English medical schools did not provide organised training for rank-and-file surgeons and apothecaries. Yet prospective surgeon-apothecaries increasingly sought to complement the traditional apprenticeship with lectures, anatomical exercises and clinical lessons. This absence of leading medical teaching establishments led to the creation of an open market of private courses where teachers competed for student fees. Some lecturers formed partnerships to provide students with a choice of medical and surgical lessons and single ventures gradually solidified into private schools.

Hospital and dispensary surgeons and physicians also offered theoretical lessons and sometimes clinical lessons in their wards. At first, the administrations tolerated but did not support clinical lessons, claiming that they disrupted the normal service of the establishment. At the end of the eighteenth century, although the five great London hospitals possessed some organised teaching, it was the result of personal efforts rather than institutional endeavour.²⁵ Hospital schools built upon their clinical teaching role and developed a full array of theoretical, practical and clinical courses to gain an edge on their competitors.²⁶ By 1814 there were at least

²⁴ M. W. Weatherall, *Gentlemen, Scientists and Doctors: Medicine at Cambridge, 1800-1940* (Woodbridge, 2000), 10. See also L. Vaughan, “‘Improvements in the Art of Healing’: William Heberden and the Emergence of Modern Medicine in Eighteenth-Century England” (University of Oxford, D.Phil thesis, forthcoming).

²⁵ These five hospitals were St Bartholomew’s, Guy’s, St Thomas’, St George’s and the London: S. W. F. Holloway and C. Singer, ‘Early Medical Education in England in Relation to the Prehistory of London University’, *Medical History*, 4 (1960), 9.

²⁶ In 1807, the staff at Guy’s Hospital, who had previously advertised for their lessons separately, announced their forthcoming courses as the ‘Medical School at Guy’s Hospital’: S. C. Lawrence, ‘Entrepreneurs and Private

44 different courses in London, including 17 hospital courses (in 7 hospitals), 10 ‘non-hospital partnerships’ and 17 independent courses.²⁷

The hospitals, which provided both medical and surgical training, soon became the main centres of instruction, further legitimating the combination of these two branches. After 1800, most apothecaries sought to obtain the Membership of the Royal College of Surgeons (MRCS) which afforded the recognition of a royal institution to their otherwise basic medical training. Many surgeon-apothecaries and some physicians called for a reform of the profession which would take into account the rise of general practitioners, improve the standing of the profession and eliminate the threat of unqualified practice. The General Pharmaceutical Association of Great Britain, created in 1793, lobbied for the regulation of the profession and endeavoured to prevent druggists from compounding and selling medicines. It proposed that apothecaries be regulated by a superintending body and awarded a diploma attesting their adequate training after examination. This ‘reactionary movement’, as Sydney Holloway qualifies it, failed to obtain a monopoly on pharmaceutical practice, but generated momentum.²⁸ From Edward Harrison’s ambitious bill in 1805 to the Association of Apothecaries and Surgeon-Apothecaries’ bill in 1813 a series of attempts to reform the profession were rebuffed by the disagreement between the corporations until the lack of consensus incited the Society of Apothecaries to present its own text in 1815.²⁹ After further compromises the Apothecaries’ bill was adopted as an Act of Parliament on 12 July 1815 and became the basis for the regulation of English medical practice until the 1858 Medical Act.³⁰

Enterprise: the Development of Medical Lecturing in London, 1775-1820’, *Bulletin of the History of Medicine*, 62 (1988), 171.

²⁷ *Ibid.*, 182.

²⁸ S. W. F. Holloway, ‘The Apothecaries’ Act, 1815: a Reinterpretation’, *Medical History*, 10 (1966), 111.

²⁹ E. Harrison, *Remarks on the Ineffective State of the Practice of Physic in Great Britain with Proposals for its Future Regulation and Improvement* (London, 1806). The Association of Apothecaries and Surgeon-Apothecaries’ bill was intended as a compromise between Harrison’s and the 1806 College of Physicians’ Bill. It proposed to establish a body which would examine apprentices, dispense licences and control the practice of surgeon-apothecaries. Yet, the reluctant universities and corporations wished to retain their roles and privileges and met the bill with opposition or indifference. See Holloway, ‘The Apothecaries’ Act’, 119-20.

³⁰ *Ibid.*, 124.

Although the Apothecaries' Act answered demands for controlling access to medical practice by obliging apothecaries to obtain a licence, it disappointed reformers. Firstly, the Act, restricted to apothecaries, did not address the entire domain of medical care. The Royal College of Physicians had obtained that physicians continue to enter the profession through the university curriculum while general practitioners remained associated with the trade of pharmacy by their affiliation to the Society of Apothecaries. The Apothecaries' Act did not affect surgical practice either, which remained free from any compulsory examination or licence. Secondly, provision had not been made to organise or improve medical and surgical teaching, leaving the Society of Apothecaries to determine the course requirements and the content of the Licence examination. State intervention was no greater than in previous decades and medical education remained the realm of private enterprise and local initiative. Private lecturers and hospital practitioners continued to develop their teaching and the number of courses doubled between 1814 and 1825.³¹ Although none of the London schools provided as complete a range of instruction as did the University of Edinburgh or the Paris Faculty, overall there was as much scope for a comprehensive medical education in the English capital as in Paris. The rich diversity of the London medical lectures enabled students to approach medicine in the way that was most adapted to their individual circumstances, but required delicate choices and compromises.

By 1815, the organisation of medical education and the regulation of medical practice displayed striking differences on either side of the Channel. The heavily regulated and unified French structure, in which medical instruction and access to practice were controlled at all levels by the state, contrasted with the English entrepreneurial freedom, where corporations, universities, hospitals, private professors, and even students shaped the educational market according to their needs and interests. While the French system of medical education aimed to train a majority of students for the doctorate and only a minority for the *officiat*, the English

³¹ Lawrence, 'Entrepreneurs and Private Enterprise', 182.

system acknowledged the separation between an extremely small elite of physicians and pure surgeons and a great mass of surgeon-apothecaries confined to general practice. Continuity in English medical education from the eighteenth century reflected in the proportion of university-trained practitioners to apprentices, which hardly changed until the 1860s: only 10-15% of medical men were physicians (including Scottish graduates) while the great majority were either surgeon or apothecaries, or more frequently both.³² The ratio of university-trained physicians to the total number of French medical men was similar to that of England just before the Revolution but did not reflect the number of college-trained surgeons.³³ From 1803, however, this ratio gradually rose, especially after 1819 when the number of MD graduates was consistently superior to the number of new *officiers*. While in 1815 the proportion of *officiers* was still slightly higher than that of doctors, by 1846 the French medical profession was divided between 60% doctors and 40% *officiers de santé*.³⁴

The differences in the origin and structure of the education systems strongly influenced the content of medical instruction. In France, Revolutionary thinkers favoured medical science over professional considerations. The *écoles de santé* were designed to cover all aspects of medical science by integrating clinical teaching and anatomical exploration. The creation of the Société de l'École de Santé, designed to replace the former Société royale de Médecine, also reinforced the scientific mission of the Paris school. Except at the universities, English medical education, on the contrary, evolved from the needs of rank-and-file practitioners to complement their apprenticeship, and only improved gradually. Full programmes of education were drawn up by individuals like Lettsom and were not necessarily implemented in all schools. Moreover, since instruction was targeted at future general practitioners, the London curriculum focused less on

³² Extrapolations taken from Simmons's 1783 *Medical Register* and the 1856 *Medical Directory*: J. Lane, 'The Medical Practitioners of Provincial England in 1783', *Medical History*, 28 (1984), 354-5; Holloway and Singer, 'Early Medical Education', 4.

³³ Faure estimates that about 2,500 medical doctors and 25,000 surgeons practised in France in 1786: Faure, *Histoire sociale de la médecine*, 20.

³⁴ R. Heller, 'Officiers de Santé: the Second-Class Doctors of Nineteenth-Century France', *Medical History*, 22 (1978), 36. The 1803 law on medical practice prevents any meaningful statistical analysis for 1815 as it permitted existing unlicensed practitioners to take the title of doctor or *officier de santé* according to their studies and experience. The number of doctors graduating each year doubled between 1815 and 1835.

science and concentrated on practice and therapeutics. The professional elite, which alone was in a position to undertake scientific research, was often educated in the English and Scottish universities rather than in London. This dissimilarity between the two countries appears to confirm a simplified but not unfounded view which sees early nineteenth-century France as a nation of revolutions, ideas and scientific progress while England displayed political adaptation and a greater attention to trade and industry.

Beyond their differences both the French and English medical educational systems possessed advantages and drawbacks. Although the French organisation was hailed as very successful in the first part of the century, it was ultimately responsible for the inability of French medicine to match the advances of German science. Designed to provide clinical lessons and anatomical dissections, it failed to expand into the new territories of laboratory research. England, on the contrary, possessed a complex and decentralised medical education structure which remained under attack by reformers throughout the period. The medical instruction market involved many rival institutions which competed for students, preventing the unification of curricula and degrees. Yet that flexibility sometimes acted favourably and allowed rapid—albeit limited—improvements which the competition between establishments then gradually generalised.

The early nineteenth century represents a milestone for the emergence of a French and an English medical profession, even if to a different degree. Young men who complemented their apprenticeship with a few courses in the eighteenth-century could hardly be called medical students. Neither could the university pupils who studied theoretical texts and saw little of patients or disease. Even at the University of Edinburgh, where the curriculum was well defined, some pupils only registered for a handful of courses, and Lisa Rosner rightly refers to them as

‘students and apprentices’.³⁵ Medical students as we understand them today were born when prospective medical men moved away from the purely practical apprenticeship or theoretical university lectures to undertake a holistic course of studies. However, this community was only given a clear existence in France and England when its instruction was defined by the laws of 1803 and 1815 respectively.³⁶

The emerging community of French and English medical students and their education, based on the ternary foundation of formal lectures, clinical lessons and anatomical exercises, form the subject of this thesis. The dissimilarities in the educational systems and professional structure, and the close connections between England and France reinforce the interest of a comparison between the two countries during the first half of the nineteenth century.³⁷ The 1815 Apothecaries’ Act and the 1858 Medical Act offer useful landmarks on which to anchor this study. These laws define a stable period during which the requirements for medical instruction presented a unity not only in England, but also in France where major changes occurred only before and after those dates. Furthermore, from a scientific perspective, the period between 1815-1858 roughly coincides with the clinical era, prior to the development of laboratories in the 1860s and 1870s. This was also an era of peace, which encouraged scientific exchange and enabled practitioners to travel and examine how medicine was practised on the other side of the

³⁵ L. Rosner, *Medical Education in the Age of Improvement, Edinburgh Students and Apprentices, 1760-1826* (Edinburgh, 1991).

³⁶ Although the Apothecaries’ Act did not apply to prospective English physicians or pure surgeons, it touched the greatest majority of English medical students. On the emergence of students see P. Moulinier, *La Naissance de l’étudiant moderne (XIX^e siècle)* (Paris, 2002).

³⁷ In any comparative study one must be aware that words can describe different realities, depending on the context where they are used. The risk of confusion is great in this case because the French and English languages share a significant amount of words. It is therefore necessary to establish some distinctions regarding the titles of the various practitioners. In England, the three terms of physician, surgeon and apothecary remained in use to cover the legal division of the profession. However, ‘general practitioners’ came to reflect the great number of medical men who possessed either the LSA, or both the LSA and MRCS, and practised general medicine, in contrast with physicians and pure surgeons who practised solely medicine and surgery respectively. In France all medical students were taught both medicine and surgery, whether they qualified as Doctors in Medicine, Doctors in Surgery or *officiers de santé*. Furthermore, *pharmaciens* only dispensed drugs and did not practise medicine, while medical men were only allowed to practise pharmacy under specific conditions. Therefore the term ‘general practitioner’ applied to French medical men does not reflect a distinction between doctors and *officiers de santé* nor implies that they dispensed drugs as a regular part of their practice. I have also preferred the French term *officier de santé* to define the second category of French practitioners to avoid the confusion with the English health officers who acted within the framework of the Poor Law.

Channel. Moreover, during this period, the medical profession, although affected by growing specialisation, tended towards homogeneity and unification. Its members increasingly possessed a comparable education and parallel career concerns. In England, the 1858 Medical Act, while retaining the licensing privileges of the various corporations and universities, provided, with the medical register, the first unification of physicians, surgeons and apothecaries and formally gave birth to a profession which had been gradually emerging over the course of the past century.³⁸ In France, 1858 also saw the creation of the General Association of France's Medical Practitioners, established to defend professional interests of both doctors and *officiers*.

By providing a study of medical instruction and medical students' life in France and England between 1815 and 1858, the present work intends to contribute to an already rich historiography on medical education and the medical profession in the nineteenth century. Due to its perceived influence over Western medical science during the clinical era, the 'Paris School' has attracted the attention of many historians. In his seminal work on Parisian hospital medicine, Erwin Ackerknecht emphasised the role of the revolutionary reforms and the unified hospital system in the emergence of morbid anatomy, traditionally seen as a Parisian specificity. He argued that the uniform and ambitious Faculty training and hospital teaching contributed to create a certain unity of thought and practice in the Parisian medical community.³⁹ Michel Foucault's study on the birth of the clinic also pointed to a clear caesura around the time of the Revolution and stressed the role of French advances in the foundation of clinical and pathological knowledge.⁴⁰ Toby Gelfand's and Marie-José Imbault-Huard's work on eighteenth-century surgeons confirmed the role of the surgical profession in transforming French medical science and pushing it towards the clinico-pathological method of investigation.⁴¹ From the late

³⁸ M. J. Peterson, *The Medical Profession in Mid-Victorian London* (Berkeley, 1978), 36-7.

³⁹ Ackerknecht, *La Médecine hospitalière*.

⁴⁰ M. Foucault, *Naissance de la clinique: une archéologie du regard médical* (Paris, 1963).

⁴¹ T. Gelfand, *Professionalising Modern Medicine: Paris Surgeons and Medical Science and Institutions in the 18th Century* (Westport, 1980); Imbault-Huard, *L'École pratique de Dissection*.

1970s, however, the pertinence of this vision has been called into question and some historians have sought to deconstruct the “mythical” vision of the ‘Paris school’. Othmar Keel, for example, has argued that French physicians such as Pinel and Bichat borrowed many of their ideas on pathological anatomy from British physicians like J.-C. Smyth, Mathew Baillie and John Hunter.⁴² Laurence Brockliss has also attacked the idea of revolutionary rupture and demonstrated the continuity with the Ancien Régime by re-evaluating eighteenth-century university education.⁴³ Charles Coury’s and Jacques Léonard’s works on French medical education have also been complemented by a reappraisal of the role of provincial *officiat* instruction.⁴⁴

Although recent historiographical contributions have exposed a more balanced view of the ‘Paris School’, some of its traditional specificities still hold and support the concept of a major break around 1790-1805. While Brockliss is right to point out that the state of eighteenth-century medical education was not as bleak as usually portrayed after the Revolution, and that the instruction provided by the *écoles de santé* did not constitute a complete split from the past, these schools nevertheless presented a fundamental rationalisation of the previous system. They aimed to offer, in a single institution, as complete an instruction as possible in a logical curriculum, instead of leaving students to complement a sketchy education with private courses and demonstrations as was the case before the Revolution. Furthermore, while French physicians undoubtedly borrowed from the British without acknowledging their sources, the systematisation of research in pathological anatomy remains specific to Paris. The study of the *Société anatomique*

⁴² O. Keel, *La généalogie de l’histopathologie : une révision déchirante. Philippe Pinel, lecteur discret de J.-C. Smyth (1741-1821)* (Paris, 1979) ; O. Keel, ‘Was Anatomical and Tissue Pathology a Product of the Paris Clinical School or Not?’, in C. Hannaway and A. La Berge (eds.), *Constructing Paris medicine* (Amsterdam, 1998), 117-186.

⁴³ L. Brockliss, ‘L’enseignement médical et la Révolution: un essai de réévaluation’, *Histoire de l’éducation*, 42 (1989), 79-110.

⁴⁴ J. Léonard, ‘Les études médicales en France entre 1815 et 1848’, *Revue d’histoire moderne et contemporaine*, 13 (1966), 87-94 ; *La Vie quotidienne du médecin de province au XIX^e siècle* (Paris, 1977) and *Les Médecins de l’Ouest au XIX^e siècle* (Lille, 1978) ; C. Coury, *L’Enseignement de la médecine en France des origines à nos jours* (Paris, 1968). The re-evaluation has been operated by O. Faure, ‘Cours pratiques et écoles secondaires de médecine en France au début du XIX^e siècle: une expérience révolutionnaire étranglée?’, *Bulletin du Centre Pierre Léon* 1-2 (1998), 9-27 and J. Bescond, ‘Genèse et devenir’.

de Paris confirms that morbid anatomy was a central object of study at the Faculty and in the hospitals, and that the best students dedicated their efforts to that area.⁴⁵

The historiography of English medical education appears less controversial despite several re-evaluations. In the absence of an easily identifiable source of medical and surgical progress over the period, the focus of historians has revolved around the emergence of the profession and its defining elements. In 1957, Charles Newman presented a panorama of medical instruction in nineteenth-century Britain, where he outlined the evolution of the various educational establishments.⁴⁶ The Apothecaries' Act, seen by Newman and other historians as a landmark in the history of English general practice, has been since re-examined by Sydney Holloway, who demonstrated that it represented a missed opportunity for general practice rather than a success.⁴⁷ The rise of surgeon-apothecaries has also been Irvine Loudon's main focus in *Medical Care and the General Practitioner, 1750-1850*, where he traced the origins of general practice in the eighteenth century and followed its evolution through tentative legislative input and professional efforts during the nineteenth century.⁴⁸ For the later period, M. J. Peterson has studied the 1858 Medical Act's decisive role in structuring the profession, and like Loudon, has sought to determine the various driving forces and the institutional and social hindrances to professional and scientific evolution.⁴⁹ More recently Anne Digby has followed the evolution of general practice through to the adoption of a social system of medical protection in the twentieth century.⁵⁰

⁴⁵ See F. Palluault, 'La Société anatomique de Paris (1803-1873). Étude institutionnelle et prosopographique d'une société médicale parisienne au XIXe siècle' (École nationale des Chartes, Paris, thèse pour le diplôme d'archiviste paléographe, 1999). Some of the contributions in Hannaway and La Berge's *Constructing Paris medicine* have refuted the monolithic view of Parisian medicine which Ackerknecht is said to have provided. However, the institutional unity of the Paris school (a single school associated with a unified hospital system) was not contradictory with a certain eclecticism of thought and outlook on disease and treatment which Ackerknecht himself pointed.

⁴⁶ C. Newman, *The Evolution of Medical Education in the Nineteenth Century* (Oxford, 1957). Recently, Keir Waddington's specific study of education at the St Bartholomew's medical school has shed new light on this subject: K. Waddington, *Medical Education at St Bartholomew's Hospital, 1123-1995* (Woodford, 2003).

⁴⁷ Loudon, *Medical Care*, 172; Newman, *The Evolution of Medical Education*; Holloway, 'The Apothecaries' Act, 1815'.

⁴⁸ Loudon, *Medical Care*.

⁴⁹ Peterson, *The Medical Profession*.

⁵⁰ A. Digby, *The Evolution of British General Practice, 1850-1948* (Oxford, 1999).

Studies on British medical history have also researched the comparative role of Edinburgh and London in the provision of medical instruction before the creation of the University of London.⁵¹ In her thesis ‘Science and Medicine at the London Hospitals: the Development of Teaching and Research, 1750-1815’ Susan Lawrence describes the multiplicity of sources of education for London students at the turn of the nineteenth century. She also points to the emergence of hospitals as the main teaching centres and reveals London as being far from a medical education desert in comparison with Edinburgh.⁵² Lisa Rosner similarly describes the variety of student attitudes towards the education delivered by the university of Edinburgh at the same period, and demonstrates that the Scottish model of education resembled—more than it differed from—the London medical market where students chose what courses they wanted to attend.⁵³

This study will also join the historiography of comparative studies on medical education. Theodor Puschmann presented the first synthetic analysis of medical instruction in a multinational context at the end of the nineteenth century. Although Abraham Flexner provided detailed comparisons of European and American medical education in the 1920s, he only evoked nineteenth-century developments as precursors of twentieth-century organisation, emphasising the roots of hospital-based medicine and of university-based research.⁵⁴ More recently, Thomas Bonner has presented an authoritative study in *Becoming a Physician. Medical Education in Britain, France, Germany and the United States, 1750-1945* which focuses on the different models of education, their roots and specificities, and pays special attention to the students.⁵⁵ Although my own research proceeds in a similar manner, my narrower scope permits greater attention to the content of courses, the conditions in which they were dispensed and how they were perceived by

⁵¹ See Holloway and Singer, ‘Early Medical Education’.

⁵² S. C. Lawrence, ‘Science and Medicine at the London Hospitals: the Development of Teaching and Research, 1750-1815’ (University of Toronto Ph.D. thesis, 1985).

⁵³ Rosner, *Medical Education in the Age of Improvement*.

⁵⁴ T. Puschmann, *A History of Medical Education from the most Remote to the most Recent Times* (London, 1891) [Original edition published in German in Austria in 1889]; A. Flexner, *Medical Education: A Comparative Study* (New York, 1925).

⁵⁵ T. N. Bonner, *Becoming a Physician. Medical Education in Britain, France, Germany, and the United States, 1750-1945* (Oxford, 1995).

students. Furthermore, the simple dual comparison allows a closer analysis of each side's characteristics. Christian Bonah's study of French and German medicine during the second half of the nineteenth century, which compares the curriculum of various universities, for example, has offered a template for the present work.⁵⁶ This study also offers data on medical education which will help review the only direct comparison between French and English medical education during the clinical era, Russell Maulitz's study of British medical students' educational trips to France.⁵⁷

Similar to previous works on the social aspects of late eighteenth-century and early nineteenth-century medical education by Susan Lawrence (London) and Lisa Rosner and Guenter Risse (Edinburgh), this thesis depicts students' everyday life at the school and the hospital.⁵⁸ It further amplifies the picture by giving an account of students' life outside the school, following the model provided by Jean-Claude Caron's research on Parisian students in the first half of the nineteenth century, and Pierre Moulinier's more recent study which extends over the whole century.⁵⁹ In addition to providing the outsiders' view of medical reformers and the profession, this thesis describes medical education from inside the medical school. By illustrating the dialectic relationship between teachers and pupils, it seeks, like Bonner's *Becoming a Physician*, to make readers hear the 'voice of students', and experience medical education through their eyes. By focusing on future legally-qualified practitioners and on medical education in general, this thesis seeks to contribute to the debate on professionalisation and to demonstrate

⁵⁶ C. Bonah, *Instruire, guérir, servir. Formation et pratique médicales en France et en Allemagne pendant la deuxième moitié du XIX^e siècle* (Strasbourg, 2000).

⁵⁷ R. Maulitz, *Morbid Appearances: the Anatomy of Pathology in the Early Nineteenth Century* (Cambridge, 1987). Maulitz concentrated on the transfer of knowledge from France to England and Scotland. This study hopes to demonstrate that, although fundamental, the scientific impetus on which Maulitz insists, was only one of the reasons which attracted English students to Paris. See also John Harley Warner's works on the American students in Paris in the 1820-1860s. J. H. Warner, 'Remembering Paris: Memory and the American Disciples of French Medicine in the Nineteenth Century', *Bulletin of the History of Medicine*, 6 (1991), 301-25.

⁵⁸ S. C. Lawrence, *Charitable Knowledge: Hospital Pupils and Practitioners in Eighteenth Century London* (Cambridge, 1996); G. B. Risse, *Hospital Life in Enlightenment Scotland: Care and Teaching at the Royal Infirmary of Edinburgh* (Cambridge, 1986).

⁵⁹ J.-C. Caron, *Génération romantique. Les étudiants de Paris et le Quartier latin (1814-1851)* (Paris, 1991) ; Moulinier, *La Naissance de l'étudiant moderne*. A similar study of students in London still lacks in the historiography.

the role of the Apothecaries' Act in laying the ground for the emergence of an English medical profession in 1858, admittedly long after a structured equivalent was born in France.

Although this work aims to present an accurate picture of medical students in England and France, it proved impossible, in such a short space, to depict fully the provision of medical education on a national scale, and account for all the medical schools of both countries. By concentrating on London and Paris and making only references to provincial schools, a significant feature of medical instruction is necessarily lost. A full comparison, for example, should have included a study of medical education in the British Isles as a whole, and particularly a more thorough research on the Scottish training undertaken by a number of English practitioners. However, in their respective countries both capitals possessed the most complete structure of schools and hospitals and trained the greatest number of students. Furthermore, Scotland was mainly visited by Englishmen wanting a degree, not by future general practitioners and many medical students who pursued the majority of their studies in the provinces or in Scotland came to the metropolis at some point, either to complete their education or to qualify.

It also proved impossible to complete a prosopographical study of medical students, which would probably have yielded critical information about their social origin and their educational and professional career. Instead, my thesis draws on scarce but invaluable diaries, correspondence, and memoirs, which like biographies and fiction offer insight into medical students' lives.⁶⁰

To analyse the life and education of medical students, the structure of this research closely follows the chronology of their studies. The first chapter describes what motivated young men and their family to choose medicine and how they prepared their forthcoming instruction. The second chapter follows students as they embarked upon medical studies, familiarised themselves

⁶⁰ Women were not admitted as medical students until after the selected period; therefore, throughout this work 'students' refers to men.

with their new environment and set out to complete the courses. The content and quality of medical teaching form the subject of the third chapter while the fourth analyses the defects of the educational system and the means employed by students to remedy them. The fifth chapter ventures out of the medical school environment to describe the place of medical students in the broader social context, while the final chapter depicts the preparation for qualifying examinations and the difficulties involved in settling down in practice.

1. TOWARDS MEDICAL STUDIES

The profession is not one which holds out the brilliant prizes of some other walks of life. You will have no chance of acquiring high honours or founding great families... The practice of medicine is, I believe, its own sufficient reward. It does not often conduct to wealth, but it rarely fails to secure a sufficiency; it holds out no glittering prospect, but it gives what is better than titles or honours—it attaches a man to his fellows by innumerable ties of reciprocal kindness and goodwill; it makes him the friend of every man, woman and child with whom it brings him into contact.¹

¹ T. Holmes, *The Introductory Address Delivered at the Opening of the Medical School of St George's Hospital for the Session of 1867-1868* (London, 1867), 22.

The French decree of 11 March 1803 and the English 1815 Apothecaries' Act provided defining structures for the medical profession by setting minimum qualification requirements and improving standards. The recognition, in a national legal framework, of a hitherto poorly-regulated occupation elevated medicine to a higher social status and contributed to the rise of the middle classes. In his 1842 vocational guide, Édouard Charton remarked that, in early nineteenth-century France, Revolutionary reforms, which championed equal access to professions, had multiplied opportunities and restricted the influence of 'birth, law, tradition, [and] paternal authority' which limited young men's horizons under the Ancien Régime.² In England, these openings emerged as early as the eighteenth century, when urbanisation fostered the development of the professions. In both countries, demographic expansion, increased production, and division of labour created new livelihood opportunities in the first half of the nineteenth century. While the growth and specialisation of services required additional employments in administration and business, learned occupations such as medicine, law and the clergy continued to attract many young men every year.³

Charton, however, was not alone in remarking that, unlike the other two traditional professions, medicine was often misconceived and its positive and negative aspects were rarely well understood.⁴ W. H. Denham, in his 1837 medical guide, insisted that any Englishman contemplating a medical career should only embark upon further studies once he possessed a solid knowledge of what to expect in terms of instruction, practice, career, and financial security. These admonitions certainly served to legitimate his guidebook but should not be discarded hastily. Medical reformers unanimously complained that some pupils arrived at the medical schools either unfit or ill-prepared, ignorant of what was required from them and unable to make

² E. Charton (ed.), *Guide pour le choix d'un état, ou Dictionnaire des Professions* (Paris, 1842).

³ E. L. Woodward, *The Age of Reform, 1815-1870* (Oxford, 1954), 16; J.-P. Rioux, *La Révolution industrielle, 1780-1880* (Paris, 1971), 205.

⁴ Charton, *Guide pour le choix d'un état*, 378.

the most of their studies.⁵ How young men assessed the medical profession prior to committing themselves determined in part their success or failure. This perception was driven by their personal circumstances and their motivations for choosing a medical career. It, in turn, determined how they sought information about their future occupation and the studies necessary to qualify, and how they prepared themselves for their training.

DEGREE, CAREER AND SCHOOL

Social background and range of medical careers

Youths were advised to select an occupation matching their tastes and interests provided that it lay within the range of their capital and capacities.⁶ Financial means and social position determined the level of preliminary education that a boy received and consequently the prerequisites he could satisfy and the type of medical licence or degree he could hope to obtain. This then defined the system of education he would enter and the professional rank most likely to come within his reach. When a young man possessed both the intellectual ability to fulfil the educational requirements set up by the schools and licensing bodies, and the financial resources to pursue medical studies, he found no obstacle between himself and a degree.⁷

The range of degrees and careers available offered both the wealthy and the impecunious young men positions in medicine, provided they satisfied a series of prerequisites. The sons of relatively rich families were given a thorough primary and secondary education and could easily meet the requirements of the most demanding medical institutions. In England, wealthy parents usually sent their sons to expensive public schools which provided the strong classical background necessary to enter Oxford and Cambridge, but they sometimes preferred small private establishments or tuition at home. If the parents of a well-educated boy could not send

⁵ Denham added that hundreds of young men started medical studies without a proper idea of their extent and, when they realised their ignorance, 'sank into cold indifference' or abandoned medicine: W. H. Denham, *Verba Consilii or Hints to Parents who Intend to Bring up their Sons to the Medical Profession* (London, 1837), 21-2.

⁶ H. B. Thomson, *The Choice of a Profession. A Concise Account and Comparative Review of the English Professions* (London, 1857), iii.

⁷ The only exceptions were the regulations which restricted admittance at Oxford and Cambridge to members of the Church of England, obliging dissenters to apply to the Scottish universities and University College London.

him to Oxford or Cambridge, or deemed the instruction dispensed there not practical enough for medicine, they could choose instead the universities of Edinburgh or London, or apprentice him to a reputed hospital surgeon. In France, students wishing to obtain the MD degree had to matriculate at a medical faculty, and from 1823 were required to possess the *baccalauréat ès-lettres*.⁸ To prepare for this degree, boys from wealthy backgrounds were sent to one of the state *lycées* or to a private school of high standard.

A highly-rated instruction afforded young men great career opportunities. In England, medical graduates from Oxford and Cambridge gained exclusive access to the highest echelon of the profession through the Fellowship of the Royal College of Physicians (FRCP). Furthermore, this elite would obtain most of the coveted positions of physicians to the main London and provincial hospitals. Fewer in number than the great mass of general practitioners (approximately 3% of all medical men for 1815-1858), and well connected with the upper classes, they enjoyed strong prospects of success. Meanwhile, the young men who were able to afford an apprenticeship to a London hospital surgeon qualified as Members of the Royal College of Surgeons and could hope to enter a career as ‘pure’ surgeons, possibly by obtaining a hospital post.

In France, by comparison, the sheer number of medical graduates prevented them all from reaching prominent positions. However, the MD diploma placed French doctors well above *officiers* and enabled them to apply for hospital and teaching positions. Their circumstances were similar to those of English graduates from Scottish universities who, placed in a situation inferior to the Oxford and Cambridge gentlemen, had to demonstrate their value in order to progress in their career.

⁸ A decree of 17 March 1808 established (from October 1815) the *baccalauréat ès-lettres* (Bachelor of Arts) as a prerequisite for the MD examinations, then held at the end of the four-year curriculum. On 5 July 1820 a royal ordinance stipulated that, from 1823, students would need to hold the *baccalauréat ès-lettres* as soon as their first matriculation and, in addition, would have to possess the *baccalauréat ès-sciences* (Bachelor of Sciences) to take the examinations. This last requirement was suspended between 1831 and 1837. Between 1852 and 1861 the *baccalauréat ès-lettres* also ceased to be required while an adapted version of the *baccalauréat ès-sciences* was expected instead: Caron, *Généralisations romantiques*, 25-6; Charton, *Guide pour le choix d'un état*, 380.

At the other end of the spectrum, young men of modest means could only reach the lower system of qualification which required fewer prerequisites but also provided fewer professional rights. From 1815, prospective English surgeon-apothecaries were required to undertake a five-year apprenticeship before applying for the Licence of the Society of Apothecaries. After gaining an elementary level of instruction in a local grammar school most future general practitioners were apprenticed to an apothecary at the age of fifteen or sixteen. The Society of Apothecaries, aware that many apprentices only possessed a limited education, did not expect anything more than a basic general knowledge.⁹ The London medical schools, meanwhile, acted as simple course providers and neither established an entrance examination nor required proof of educational achievement.¹⁰

In France, the entrance requirements to study for the lower level of medical practice were similarly low. Until 1854, prospective *officiers de santé* were free to train through a six-year apprenticeship to a doctor, five years' hospital experience or three years of studies in a medical school. Many actually undertook a combination of these three elements, starting as apprentices to a general or hospital practitioner before matriculating at an *école secondaire de médecine*.¹¹ Many *officiat* students never took the *baccalauréat* nor even completed their secondary studies, leaving

⁹ In 1827, the Society of Apothecaries established a Latin test, which was transformed into a Preliminary Arts Examination in 1831 to include classics (translation from Latin and Greek authors) and mathematics. In 1839-40 written papers were introduced for the first time for that particular examination: P. Hunting, *A History of the Society of Apothecaries* (London, 1998), 205. The London apprentices, whose masters were member of the Society of Apothecaries, undertook an additional examination before starting their medical studies: [England. Parliament. House of Commons], *Report from the Select Committee on Medical Education and Practice of the Medical Profession in the United Kingdom, with the Minutes of Evidence, Appendices and Indices* (London, 1834), vol. 3, 2 (Thereafter abbreviated as *RSCME*). The College of Surgeons also established a preliminary examination in 1852.

¹⁰ Secondary-school teaching was not standardised, and in the absence of a national examination like the *baccalauréat*, schools could not easily verify their students' level of education.

¹¹ Most prospective *officiers* preferred to mix school instruction with practical experience, calculated to equal three years of school study (three years of general practice and two years of school study for example): Léonard, *La vie quotidienne du médecin*, 13. Alongside the highly publicised, thorough training of the medical faculties, apprenticeship remained a component of French medical education until 1854. After that date, prospective *officiers* were obliged to attend the regular curriculum of a faculty for twelve terms or that of a preparatory school of medicine for fourteen terms. They also had to gain personal hospital experience for one year in a faculty, or two and half years in a preparatory school. Before 1854, the candidates to the *officiat* who trained only through an apprenticeship were often refused by the juries and advised to gain more theoretical knowledge in a school: Bescond, 'Genèse et devenir', vol. 2, 447-50.

their local *collège* after only a few years.¹² Like the Society of Apothecaries, French *écoles secondaires* only required their pupils to prove a correct command of their mother tongue, an understanding of mathematics and a basic knowledge of Latin.

Unlike wealthy young men, who could afford to travel far and live in an expensive city, humble apprentices and *officiat* pupils had to find instruction nearby. In England, young men could easily find a position as an apprentice close to home as many apothecaries welcomed both the help and the complementary income that apprentices brought. Van Zwanenberg notes that in Suffolk, for example, 128 out of the 170 surgeon-apothecaries (75%) took apprentices between 1815 and 1858.¹³ After or towards the end of their apprenticeship, young men could pursue their studies either in one of the ten provincial towns recognised by the Society of Apothecaries and the Royal College of Surgeons, or in London. If they only sought the LSA examination, they could complete their entire instruction in the provinces. However, if they also wished to obtain the diploma of the Royal College of Surgeons (MRCS), they were required, until 1839, to attend the surgical practice of one of the large London hospitals for at least six months.¹⁴ In France, a prospective *officier* also easily found instruction close to home. Although apprenticeship was far less common than in England, many practitioners were willing to employ inexperienced young men. Furthermore, twenty towns possessed the *écoles secondaires* which offered all the necessary instruction for *officiers*. Young men did not need to travel to Paris to complete their studies as *officiers de santé*. In *Madame Bovary*, for example, Charles Bovary did not study elsewhere than in Rouen, the *département's* largest town.¹⁵

The career expectations of men who reached the lower professional ranks were logically lesser than those of doctors and former apprentices of renowned English practitioners. Often

¹² *Officiers de santé* have rarely been the subject of biographical studies and are under-represented in the historiography. See Léonard, *Les Médecins de l'Ouest*, for Brittany and the North-West of France.

¹³ D. Van Zwanenberg, 'The Training and Careers of those Apprenticed to Apothecaries in Suffolk, 1815-1858', *Medical History*, 27 (1983), 142.

¹⁴ In 1824, the College of Surgeons decided to recognise only the anatomical teaching provided in the regularly established schools of London, Dublin, Edinburgh, Glasgow, and Aberdeen which effectively compelled English surgical pupils to study in London for eighteenth months until 1829.

¹⁵ G. Flaubert, *Madame Bovary* (1st edn., 1857; Paris, 1961), 23-5.

their low finances compelled them to settle quickly into practice without seeking the best location or gaining further experience. Moreover, *officiers de santé* and apothecaries were unable to reach high professional positions. *Officiers* were legally prevented from obtaining public positions and had no other option than serving the undemanding country or poor urban population as general practitioners.¹⁶ In addition, they were prohibited from practising outside the *département* in which they had taken their examination.¹⁷ English surgeon-apothecaries, unable to secure hospital positions reserved to physicians and pure surgeons, also served in general practice. Alternatively, the impecunious young medical man could opt for a career in the armed services if he could not afford to enter into general practice.

A great number of families were neither wealthy enough to offer their son the expensive education which would lead him to the top of the profession nor so poor as to resign themselves to minimal instruction. They therefore endeavoured to provide him with a solid secondary education at a reasonable cost. Since only a very limited number of scholarships were available, secondary education operated an initial selection by fortune and residence. Unable to send their son to a distant boarding school, families opted instead for a local school of good standing. French middle-class boys could afford the education of municipal *colleges*, which dispensed an instruction modelled on the *lycée* system for a lower charge, and thus reach the *baccalauréat*. From 1820, a poor but bright and ambitious young man could also start his medical studies in an *école secondaire*, substantially reducing his living expenses. Upon completion of his studies at the *école secondaire*, he could, if successful at the *baccalauréat*, enter a faculty as a third-year student.¹⁸

¹⁶ Heller, 'Officiers de Santé', 28.

¹⁷ This rule was designed to keep *officiers* in the countryside areas. However, they got round it by taking the *officiat* examination in Paris instead of their own *département*. It was then admitted that they could practise wherever they wanted.

¹⁸ Faure, 'Cours pratiques', 24.

In England, however, a reasonably priced secondary education was difficult to find.¹⁹ If possible, English parents delayed their son's entry into apprenticeship, let him finish his secondary education and then endeavoured to find a master who would offer him a good theoretical and practical training.²⁰ The choice of the master was paramount as the five years spent in apprenticeship constituted the foundation on which the young man built the rest of his education. Compounding pills and licking labels onto potion bottles all day for an ignorant and tyrannical man bore no comparison with being guided through books and visits to patients by a caring and knowledgeable practitioner.²¹ Parents who could not afford to indenture their son to a hospital surgeon or apothecary wished to ensure that his master would treat him well, direct his instruction properly and enable him to receive a fair share of medical knowledge before the boy left to attend his compulsory courses.

Young men who could afford a middle-of-the-range medical education would probably be unable to reach hospital positions or afford an expensive city practice. Instead, they would settle in the countryside, with a view to securing a solid reputation and useful contacts in order to establish themselves in a town. Their broader general education and medical training enabled them to successfully compete against mere *officiers de santé* and underprivileged surgeon-apothecaries for local public posts (practitioner in a school, factory or railway company) which strengthened one's position in the medical marketplace.

¹⁹ The poet and scholar Matthew Arnold, writing in 1864, praised the education provided in the English public schools such as Eton and Harrow, but claimed that the French *lycées* and *collèges* fulfilled more successfully the need for a good and inexpensive national secondary instruction. This difference in the English and French secondary education systems confirms that class divisions were more striking in England, a fact supported by the restrictive admission procedures at Oxford and Cambridge. Arnold regretted that England did not possess schools where middle-class children would obtain an education of quality useful for a future career. M. Arnold, *A French Eton, or Middle-Class Education and the State, to which is added Schools and Universities in France* (1st edn., 1864; London, 1892), 37.

²⁰ In 1828, Thomas Hodgkin argued that English 'public opinion' required from medical practitioners the good general education which was ensured by legal regulations in France: T. Hodgkin, *An Essay on Medical Education Read Before the Physical Society of Guy's Hospital, at the First Meeting of the Session 1827-1828* (London, 1828), 7.

²¹ This master could well be ignorant if he had entered in practice before 1815 and therefore held no qualification.

Cost of studies and future income

Professional guides warned young men that medicine did not offer many opportunities for fame or fortune. Society's view of medicine and the gap between the supply and demand for medical care left bleak financial prospects. Practitioners often found it difficult to obtain the income they deserved for their services. A large part of society still perceived medical advice as an act of charity and treated medical men ungratefully. In the country and deprived urban areas, general practitioners were forced to chase their fees. Charton even contended that the urban elites, who would never think about not paying the fees of their architect or their manager, or the salary of their workers, never remembered to pay the physician who saved their lives or protected their health from threatening diseases.²² Pierre Huard claimed that nineteenth-century French practitioners renounced on average one-sixth of their overall fees and often had to wait three to four years before obtaining the remainder.²³

Furthermore, by the 1830s, competition had started to raise concern. As the British and French economies expanded, an increasing part of the population could afford, if not the best trained and most knowledgeable doctors, at least their more modest colleagues. Attention to health became a more common concern and patients increasingly sought doctors' services outside emergencies. Yet the augmentation in the numbers of potential patients was matched by a similar rise in the numbers of qualified practitioners. Access to better primary and secondary instruction enabled more and more young men from the lower-middle classes to move from the manual to the liberal professions and reach occupations previously restricted to higher classes. Furthermore, in France in particular, sons of *bourgeois* and aristocratic families, owing to their political or financial demise, were increasingly obliged to seek work.²⁴ In England, many doctors claimed that the profession had become overcrowded, pushing some surgeon-apothecaries into

²² Charton, *Guide pour le choix d'un état*, 389.

²³ P. Huard, 'La fortune des médecins français au XIX^e siècle', *Le Concours médical*, 46 (1962), 6283.

²⁴ Charton, *Guide pour le choix d'un état*, 7.

financial difficulties.²⁵ As illustrated through the literary example of Charles Dickens' *Pickwick Papers*, building a sizeable clientele represented a challenging task for the fledgling apothecary. Bob Sawyer claimed to Mr Winkle that his little business was 'so snug, that at the end of a few years, you might put all the profits in a wine glass and cover'em over with a gooseberry leaf'.²⁶ In France, university-trained doctors argued that *officiers de santé* benefited from an unfair competitive advantage, and there was an even more universal complaint, in both countries, against quacks and illegal practitioners.

In his 1842 guidebook Édouard Charton stated that although a doctor was required to undertake costly studies, medicine could only be practised with great profit by a handful of individuals. An intermediate group of practitioners enjoyed an honest financial ease, but the greatest number could not expect more than a discouraging mediocre position. Charton argued that a small number of French doctors made 12,000-18,000 Francs a year, but that many of their peers never earned more than 3,000-5,000 Francs.²⁷ The average may well have hovered around 5,000 Francs. In the same year, J. C. Hudson estimated that London general practitioners earned on average £300-400 a year. An income of £150-200 was then likely for a countryside surgeon-apothecary.²⁸ Hudson's figures appear to underestimate these revenues slightly. In 1857, for example, Henry Thomson estimated that the income of successful London physicians ranged from £800 to £3,000 while that of a country physician ranged from £500 to £1,500 a year. He added that in the major towns general practitioners' income usually reached between £300 and

²⁵ Loudon, *Medical Care*, 214-15.

²⁶ C. Dickens, *The Pickwick Papers* (1st edn., 1836; London, 1986), 622.

²⁷ Charton, *Guide pour le choix d'un état*, 390. Pierre Huard estimated that around 1846 a Parisian practitioner could hope to earn approximately 7,000 Francs a year: Huard, 'La fortune des médecins français', 6277. Dr Munaret argued that he had known only one countryside doctor who earned 5,000 Francs in an average year around that period: J. M. P. Munaret, *Le Médecin des villes et des campagnes* (Paris, 1862), 7.

²⁸ Cited in I. Loudon, 'A Doctor's Cash Book. The Economy of General Practice in the 1830s', *Medical History*, 27 (1983), 259.

£1,200 a year, and averaged at £500.²⁹ It is possible that in the countryside it hovered around £250.³⁰

Comparing the average cost of studies with average future income provides an idea of the real cost of medical education and indicates that medical education was slightly more expensive in England. At the Paris Faculty of Medicine, tuition fees amounted to 1,260 Francs for the four years of study in 1846. The cost of a full medical education to obtain the MD reached 10,000 Francs, including living expenses over five years.³¹ By comparison, the total cost of *officiers de santé*'s education probably amounted to just 3,000 Francs.³² In England, the average cost of medical studies for a surgeon-apothecary, including apprenticeship, courses and living expenses was estimated at £500.³³ Statistical data about the income of French and English medical men is incomplete but the estimates taken from the figures mentioned above show that professional training equated to twice the annual income of a French doctor or an English surgeon-apothecary practising in the countryside,³⁴ and in the case of an *officier de santé* to about 1.5 of annual income. With similar limited means, it is probable that a young Frenchman was able to obtain a better instruction than his English counterpart. In particular, the Frenchman was more

²⁹ Thomson, *The Choice of a Profession*, 169.

³⁰ The very wide range of incomes earned by French and English general practitioners suggest that this type of practice was very unpredictable and that success depended to a great extent on location, personal circumstances and dedication to work.

³¹ The 10,000 Francs included tuition fees, fifty months in Paris at 160 Francs per month and a further 800 Francs for books and private courses (studies commonly spanned five years as one year was necessary to pass the final examinations and write the thesis after the four-year curriculum): Charton, *Guide pour le choix d'un état*, 400; Caron, *Génération romantiques*, 83-6; Léonard, *La Vie quotidienne du Médecin*, 29. This is to be compared with the sum of 20,000 Francs disbursed by Munaret's parents for his entire education from the age of 10: Munaret, *Le Médecin des villes*, 7. This last figure was corroborated in 1847 by the former Minister for Public Instruction, Victor Cousin, who established at between 20,000 and 25,000 Francs the cost of eight to ten years in a *collège* and five years of medical studies; in comparison, 4,000 to 5,000 Francs were enough to obtain the *officiat*: V. Cousin, *De l'Enseignement et de l'exercice de la médecine et de la pharmacie. Discours prononcé à la Chambre des Pairs en 1847* (Paris, 1850), 115-16.

³² Tuition and diploma fees for the *officiat* amounted to just 250 Francs in 1815 and 720 Francs in 1854. The remaining expenses covered three years of study in a provincial town: Charton, *Guide pour le choix d'un état*, 402; Léonard, *La Vie quotidienne du médecin*, 22-5.

³³ Peterson, *The Medical Profession*, 69; Loudon, 'A Doctor's Cash Book', 256-7.

³⁴ The estimates used are an education cost of 10,000 Francs and an annual income of 5,000 Francs for a French MD, and an education cost of £500 and an annual income of £250 for an English surgeon-apothecary. The comparison within the higher ranks of the profession is more difficult to establish because settling in a town incurred further costs, including social costs to obtain and maintain protections and recommendations. Furthermore, the average income for these categories covers great differences of practice.

likely to attain the upper strata of the medical profession.³⁵ For a comparable investment the countryside surgeon-apothecary did not necessarily benefit from the strong university education nor the social status enjoyed by a French doctor.³⁶ Furthermore, an income of £250 put the countryside practitioner only slightly above such lower middle-class men as clerks, elementary school-teachers and low-level civil servants, whose education was far less expensive.³⁷ In both France and England, however, the countryside practitioner's financial position was certainly inferior to his social importance.³⁸

MOTIVES AND FAMILY CIRCUMSTANCES

Parental decision or filial choice

That medicine attracted young men from various backgrounds and fortune raises the issue of what, in the nature and practice of that profession, they found particularly appealing to them and thus how the idea of becoming a medical practitioner first emerged. In his diary, John Green Crosse recalled the surgeon Thomas Bayly, whom he encountered when he broke his leg at fifteen. The skilful and kind practitioner was a gentleman who commanded respect, and unknowingly planted in the young man's mind the idea of becoming a surgeon. Crosse's father, however, wanted him to enter the legal profession and enrolled him at a lawyer's office, a position he soon quit to become Bayly's apprentice.³⁹ Another famous surgeon, the Frenchman Jules-Auguste Péan, became enthused by the work of country practitioners while visiting patients

³⁵ The cost of a public school education and of a few years at Oxford or Cambridge was much higher than that of an education at a *lycée* and the Paris Faculty. However, again, the prospects of French doctors were not as bright as those of Oxford or Cambridge graduates.

³⁶ The direct comparison between the cost of medical education in France and England leads to inconclusive figures because the exchange rate over the period (£1=25 Francs) failed to reflect differences in purchasing power. Sterling was then overvalued in comparison to Francs. A direct comparison would otherwise indicate that the average cost of education of a surgeon apothecary (£500=12,500 Francs) was superior by 25% to the cost of obtaining the French MD (10,000 Francs).

³⁷ Loudon, 'A Doctor's Cash Book', 261.

³⁸ Huard, 'La fortune des médecins français', 6283.

³⁹ M. Crosse, *A Surgeon in the Early Nineteenth Century. The Life and Times of John Green Crosse, MD, FRCS, FRS, 1790-1850* (Edinburgh, 1968), 5-6.

with his doctor, and similarly persuaded his family that his future lay in medicine rather than law.⁴⁰

Although these examples demonstrate that young men sometimes felt attracted to medicine and chose it against their family's initial wishes, most testimonies confirm that a medical career was usually the result of a joint decision between parents and son. Whether the young man was genuinely interested in medicine or simply conformed, by default, to family desires is difficult to establish.⁴¹ Louis Véron wrote that, at the end of his preliminary education, 'it was decided that [he] would study medicine', implying that the idea was not necessarily his.⁴² Henry Acland's father, impressed by a Viennese doctor who had dedicated his life to the care of the poor, resolved that one of his sons should be a physician. The calling fell upon young Henry while still a schoolboy, and as an 'obedient child', he answered his father's wishes.⁴³ Although Véron and Acland might not have chosen medicine if the decision had been exclusively theirs, their later success attests that they put all their energy into their work.⁴⁴

More rarely, medical students reluctantly adopted the decision taken by their parents. Despite his repeated efforts, Hector Berlioz failed to impress sufficiently on his family how much he disliked medicine. His father, a doctor himself, discarded his musical ambition as foolish and used both pressure and promises to coerce him into studying at the Paris Faculty.⁴⁵

Beyond these few examples, it is difficult to generalise about the liberty of young men to decide their future. Lisa Rosner has argued that sons of relatively wealthy parents did not urgently need to earn an income and were therefore given more leeway to ponder the advantages and drawbacks of various occupations before making up their own mind. However, the most

⁴⁰ P. Monod-Broca, 'Un glorieux et surprenant précurseur de l'asepsie, J-É. Péan', *L'Internat de Paris*, Dec. (1998), 35-8. Péan's father wanted him to become a notary.

⁴¹ John Keats, for example, is said to have chosen medicine after the death of his mother from consumption: D. C. Goellnicht, 'Keats as a Student at Guy's Hospital', *Canadian Bulletin of Medical History* 3 (1986), 67.

⁴² L. Véron, *Mémoires d'un bourgeois de Paris* (Paris, 1856), vol. 1, 4.

⁴³ J. B. Atlay, *Sir Henry Wentworth Acland, Bart., K.C.B., F.R.S., Regius Professor of Medicine in the University of Oxford. A Memoir* (London, 1903), 33.

⁴⁴ Acland became Regius Professor of Medicine at the University of Oxford while Véron topped the *internat* examination and later established a successful practice in Paris.

⁴⁵ H. Berlioz, *Mémoires* (1st edn., 1870; Paris, 1969), 55-6.

humble families might have been less informed about what was best for their sons and therefore let them decide. Charton also noted that, after the Revolution, new opportunities and professional changes had increased the ideological gap between two generations of Frenchmen. The disparity between the education, religious beliefs and political opinions of fathers and sons probably incited young men to follow their own ideas rather than their parents'.⁴⁶ However, in all cases, medical studies could not be undertaken without family support and such an important financial investment necessitated agreement.

Medical background and other motives

M. J. Peterson claims that there is 'little evidence that a dedicated altruism provided a common motive for the study of medicine' and argues that the decision to pursue medical studies reflected instead 'considerations of economics, family ties, and personal taste' where 'practicality and particularism were the rule'.⁴⁷ The high recruitment of medical students among sons of practitioners, evident in many medical dynasties in both the smaller and larger towns, concurs with an economic and familial motive behind many young men's decision to select medicine. In France, Jacques Léonard and Jean-Claude Caron have both noted a strong professional perpetuation among doctors in Paris and the provinces.⁴⁸ M. J. Peterson has determined that between 1817 and 1889 more than 35% of the 1241 English apothecaries who registered their apprenticeship at the Society of Apothecaries were sons of medical men.⁴⁹ Other

⁴⁶ Charton, *Guide pour le choix d'un état*, 9.

⁴⁷ Peterson also contends that a scientific inclination was hardly enough of a motive to influence young men because medical practice was then hardly scientific. Sir Benjamin Brodie's testimony also confirms that, for many, the love of science only emerged during the course of studies: Peterson, *The Medical Profession*, 40-1. Jacques Léonard shared the same opinion and noted that scientific instruction during preliminary education was too limited to influence the choice of a medical career: Léonard, *La Vie quotidienne du médecin*, 13.

⁴⁸ Léonard, *Les Médecins de l'Ouest*; Caron, *Génération romantiques*, 99-101. However, no statistical data is available and no analysis of French medical students' social background has been undertaken. Françoise Huguet collected information on the family background of the Paris Faculty professors, but did not draw conclusions on the material: F. Huguet, *Les professeurs de la Faculté de Médecine de Paris. Dictionnaire biographique, 1794-1939* (Paris, 1991).

⁴⁹ Peterson claims that her figures, based on data regarding elites, probably underestimate father-son successions. However, it is also possible that it overestimates them because of the advantage that the son of a medical man held over his fellow students in reaching the highest grades of the profession. For apothecaries, for example, her sample may not be typical because medical men were more likely than others to possess the necessary contacts to indenture their son to a London apothecary.

research, such as Van Zwanenberg's study of apothecaries' apprentices in Suffolk, indicate a similar ratio.⁵⁰ Peterson's research on the Fellows of the College of Physicians and the College of Surgeons did not offer a definite conclusion on professional perpetuation, but her analysis pointed to the same movement of internal promotion noted by Léonard in France, whereby sons of English surgeon-apothecaries and of French *officiers* both endeavoured to obtain the MD degree.⁵¹

In choosing their father's profession, sons of medical practitioners enjoyed many advantages. The future surgeon-apothecary was likely to be apprenticed to a relative who would only charge a nominal premium, or none at all.⁵² At least 26% of the apprentices studied by Peterson, for example, had been apprenticed to their father, uncle or brother.⁵³ In France, except for the minority of future *officiers* who chose to go into apprenticeship, belonging to a medical family did not lower the cost of studies. As in England, however, the early familiarisation with the daily duties of practitioners and the acquisition of basic skills provided an advantage over students from other backgrounds.⁵⁴ An English student from a medical family also benefited from his father's contacts to obtain a place as a surgeon's or a physician's pupil in a London hospital. Again, this advantage was less palpable in Paris where *externat* and *internat* were open to public competition. In both countries, however, succeeding or entering into partnership with a family member was an easy way to establish oneself and secure a clientele.

The economic and familial incentive may explain the medical career of more than a third of practitioners but it fails to illustrate fully the motives of the majority. For example, it does not do justice to the importance of the social status enjoyed by medical practitioners among their fellow citizens, especially in the countryside. Crosse's and Péan's testimonies suggest that they

⁵⁰ Van Zwanenberg, 'The Training and Careers', 139-50.

⁵¹ The proportion of Fellows of unknown family background was too great to guarantee a valid statistical analysis: Peterson, *The Medical Profession*, 41; J. Léonard, *Les Médecins de l'Onest*.

⁵² Loudon, *Medical Care*, 41.

⁵³ Peterson, *The Medical Profession*, 41.

⁵⁴ Charton argued that it was such an advantage for a young man to follow his father's profession that he could only deplore that it was so often neglected. Charton, *Guide pour le choix d'un état*, 10.

selected medicine over other careers because they believed that it brought knowledge and social prestige. To a boy, the medical practitioner appeared vested with the power to restore health and to relieve anxiety brought on by disease. He was the very person people turned to in moments of need and despair. Medical practitioners also derived their status in the community from recognition of their dedication to the sick. In an era which strongly valued philanthropy and charity, young men might have been sensitive to the fact that a medical man worked for the greater good of society. Parallels were often drawn between medical practitioners and clergymen because they both dedicated their time to the well-being of others. Not only did medicine offer a similar moral satisfaction to religion, but its health-preserving role was also more immediately visible than the salvation of souls.⁵⁵ Timothy Holmes, a professor at St George's Hospital, claimed, like others, that the practice of medicine was 'its own sufficient reward' by binding 'a man to his fellows by innumerable ties of reciprocal kindness and goodwill'.⁵⁶

Sometimes medical studies were the result of an accidental or even negative choice rather than of a positive one. Dr Munaret recalled that one of his fellow pupils at the Paris Faculty had not felt any special attraction to medicine, but having considered that all careers appeared similarly congested, resolved that medicine 'would do'.⁵⁷ Similarly, Claude Bernard only resigned himself to medicine after failing to convince the Parisian *salons* of his precocious literary talent.⁵⁸ Others, destined by their family for the Church, turned to medicine because they did not feel driven by their faith sufficiently to warrant dedicating their life to religion. Even when medicine was the first choice, the motives that determined that decision did not necessarily reflect a rational analysis of the profession. Denham complained that some parents entirely misunderstood the nature of medical practice and disregarded their son's unsuitability for the healing art. He argued that some families, 'dazzled by the glare and show which a practitioner of

⁵⁵ According to Henry Thomson, this made medicine 'one of the most universal professions,' and the medical practitioner 'the friend of all mankind': Thomson, *The Choice of a Profession*, 139.

⁵⁶ Holmes, *The Introductory Address*, 22.

⁵⁷ Munaret, *Le Médecin des villes*, 502.

⁵⁸ P. Debray-Ritzen, *Claude Bernard ou un nouvel état de l'humaine raison* (Paris, 1992), 20-28.

their acquaintance' made, and considering medicine to be 'both genteel and lucrative', decided that one of their sons would become a doctor, in the hope that he would find great success.⁵⁹ Misled by overoptimistic prospects, they pushed their offspring into medicine, looking forward to reaping the financial and social benefits of upward social mobility. The writer Louis Huart, agreeing with this view, mocked the conceited designs of parents for their sons, claiming that 'fathers who have very honourably succeeded as hosiery-traders or cabinet-makers would blush in shame if they could not make a medical doctor or a barrister out of one of their sons.'⁶⁰ Despite growing opportunities, young men outnumbered the available positions and attaining the top of one's profession was as difficult as before.

NATURE OF MEDICAL STUDIES AND PRACTICE

Benefits and drawbacks of medicine

To see beyond a medical career's obvious advantages and understand its drawbacks, young men who did not possess a medical background might have consulted a professional handbook.⁶¹ The various career guides invariably focused on the demanding nature of medicine and depicted medical studies as a daunting prospect. Charton, for example, claimed that there were few professions that required such long and difficult studies, such sustained efforts and complete daily sacrifices.⁶² Prospective medical students were warned that they would be required to attend a great number of courses and expected to master an immense amount of

⁵⁹ Denham, *Verba Consilii*, 21; Thomson, *The Choice of a Profession*, 11. Daniel Drake, an American professor, asserted that many circumstances entirely disconnected with the fitness of boys for medicine 'too often exert a dominant influence... One son of the family is thought too weakly to labour on the farm or in the work shop; he is indolent and averse to bodily exertion; or addicted to study but too stupid for the Bar, or too immoral for the Pulpit; the parents wish to have one gentleman in the family—and a *doctor* is a *gentleman*': D. Drake, *Practical essays on medical education and the medical profession in the United States* (1st edn., 1832; Baltimore, 1952), 6.

⁶⁰ L. Huart, *Physiologie du médecin* (Paris, 1841), 14. Forbes Winslow had expressed the same views two years earlier: 'Every tradesman who has been able to establish himself in business, and who has laid by a few thousand pounds must now have a son doctor': F. Winslow, *Physic and Physicians: A Medical Sketch Book, Exhibiting the Public and Private Life of the Most Celebrated Medical Men of Former Days*, 2 vols. (London, 1839), vol. 2, 209.

⁶¹ The title of some of these guides, such as Denham's *Verba consilii* or *Hints to parents who intend to bring up their sons to the medical profession*, confirm that they were primarily intended for fathers rather than sons. See Rosner, *Medical Education in the Age of Improvement*, 14, and Lawrence, 'Science and Medicine at the London Hospitals', 418-26.

⁶² Charton, *Guide pour le choix d'un état*, 378.

knowledge. When confronted with an emergency at a patient's bedside, they would be unable to consult a book to support their opinion and would need to rely solely on memory and reasoning.

To illustrate the demanding curriculum, most guides described the requirements of the various schools and licensing bodies, detailed the available courses and, in England, gave advice on selecting the best professors.⁶³ However, this information only covered the theoretical aspect of instruction and failed to reveal the social reality of medical studies. In the hospital or the dispensary, students would come face to face with a degree of misery, anguish, grime and personal tragedy for which they were probably ill-prepared. If they obtained a student position in the hospital, they would take their share of both the physical and the psychological healing dispensed to patients, and be expected to relieve cruel and desperate situations. Furthermore, not only would they be confronted with disease and the failure to cure it, but in the dissecting-room death would become their main object of study. Professional guides rarely mentioned the dangers of contagion and infection. As junior hospital staff, for example, *internes* and dressers would be expected to help the victims of epidemics, making themselves easy prey to diseases like cholera.

Although the guides provided factual information on studies and advice on the best way to set up a practice, they largely ignored the content and nature of the medical man's daily work. Just as they failed to mention the drawbacks of practical study, they often refrained from mentioning the depressing reality of medical care. Practitioners were often called when the disease was already too advanced for them to cure or improve the patient's condition.⁶⁴ With limited therapeutic means they were frequently powerless to heal acute illnesses. Patients died despite all the efforts attempted to save them, leaving the practitioner to wonder if the measures taken had soothed them a little or sped the morbid process. Chronic diseases did not fare better and many patients were relieved by the balms and potions of traditional healers better than by

⁶³ See for example *The Medical Calendar, or Student's Guide to the Medical Schools of Edinburgh, London, Dublin, Paris, Oxford, Cambridge, Aberdeen, St Andrews* (Edinburgh, 1828) and *The Medical Student's Guide and Almanac for 1844* (London, 1843).

⁶⁴ E. Ackerman, *Health Care in the Parisian Countryside* (New Brunswick, 1990), 27.

the ‘science’ of the learned physician or surgeon. General practitioners would constantly witness the same chronic intestinal disorders and fevers, and this monotony would rarely be broken by a rare case which would prompt them to open their books.

Medicine, especially in the countryside, was often an exhausting profession. Unlike other learned occupations, such as law, it could not be practised solely from the comfort of an office, for many patients were too sick to travel to the surgery. A practitioner serving a potential clientele of one to two thousand people may have covered an area of twenty to thirty square miles.⁶⁵ In a day, he could be travelling a total of twenty miles, in a carriage if he could afford one, or more probably on horseback. Furthermore, he could be called for an emergency at any time, and sometimes would have to stay at a patient’s bedside for several hours to monitor the progress of a disease or await the delivery of a baby. Indeed, one of the main drawbacks of medical practice was the ‘ceaseless employment’ and the near impossibility to enjoy any leisure.⁶⁶ No other professional man of comparable standing remained on permanent call like the medical practitioner. This made the profession quite unattractive to someone who wanted to cultivate social habits or wished for a quiet family life.

Practitioners, whose constant exposure to the sick weakened their constitution, were as much at risk of contracting patients’ illnesses as hospital students. In England, Dr William Ogle reported that, in the 1860s, medical men experienced a higher level of mortality than the overall adult male population.⁶⁷ Not only did they die younger than other members of liberal professions, they were even less protected against an early death than some traders and craftsmen.⁶⁸ Robert Woods suggests that exposure to disease, the risks of frequent travel, and alcohol and drug abuse combined to make the practice of medicine ‘akin to engagement in a

⁶⁵ Léonard remarked that several practitioners worked in a 6-mile radius in Brittany: Léonard, *Les Médecins de l'Ouest*. Anne Digby cites the example of William Goodwin who, at the end of the eighteenth century, practised over an area of 100 square miles: A. Digby, *Making a Medical Living: Doctors and Patients in the English Market for Medicine, 1720-1911* (Cambridge, 1994), 112.

⁶⁶ Holmes, *The Introductory Address*, 23.

⁶⁷ W. Ogle, ‘Statistics of Mortality in the Medical Profession’, *Medico-Chirurgical Transactions*, 1886 (69), cited by R. Woods in ‘Physician, Heal Thyself: The Health and Mortality of Victorian Doctors’, *Social History of Medicine* (1996), 8.

⁶⁸ Woods, ‘Physician, Heal Thyself’, 19.

dangerous trade.’ The mental strain brought on by their intellectual efforts was also seen as the cause behind the high number of suicides in the profession.⁶⁹

Finally, the guides warned prospective students against the false assumption that medicine was one of the most independent professions.⁷⁰ In reality, a family practitioner was entirely dependent on the confidence of his patients and practised under their constant scrutiny. The clientele, especially if wealthy, was eager to assess the real expertise of a medical man settling in the area. The criteria used in that evaluation were hardly objective and based as much on gossip as on personal experience. The practitioner’s language, dress and general demeanour, his way of examining patients, his degree of intrusiveness in the family, rapidity in offering a diagnosis, the drugs he prescribed and the fee he asked, all contributed to shape public opinion. Furthermore, his social life, political ideas, religious creed, consumption of alcohol and general conduct were also examined. In both the city and the village medical men needed to avoid anything that would damage their reputation, otherwise competitors would easily attract dissatisfied patients.⁷¹ A man would not willingly entrust a practitioner with his life if he considered him careless or incompetent, nor admit him into his family if he believed him to be ‘sensual or profligate’.⁷²

A profession unsuited for a gentleman

Medical practice remained viewed as a position of lower status than law, the army and the clergy far into the nineteenth century. M. J. Peterson has compared the choice of these different occupations and concluded justly that, in England, unlike other careers, medicine was not

⁶⁹ W. Ogle, ‘Suicide in England and Wales in Relation to Age, Sex, Season and Occupation, *Journal of Statistical Studies*, 1886 (49), 111, cited by R. Woods, ‘Physician Heal Thyself’, 19.

⁷⁰ Charton, *Guide pour le choix d’un état*, 390.

⁷¹ Loudon recalls that Sir James Clark, Queen Victoria’s physician, mistakenly took Lady Flora Hastings’ fatal abdominal tumour for a pregnancy, ‘thus appearing to confirm the unjust slur on the lady’s character’. His clientele suddenly dried up and only recovered years later: Loudon, *Medical Care*, 312.

⁷² H. W. Fuller, *Advice to Medical Students, being the Introductory Address Delivered at St George’s Hospital at the Opening of the Medical Session, October 1, 1857* (London, 1857), 10.

deemed suitable for a gentleman.⁷³ Jean-Claude Caron has shown that medicine was not considered equal to other liberal professions in France either and that sons of the bourgeoisie preferred legal to medical studies. This perception of medicine's inferior value revolted most French doctors who believed that their university education placed them on the same level as barristers.⁷⁴ The difference in status actually lay in the preliminary education and family background of the majority of medical men rather than in their studies and merits. Unlike law and theology students and army cadets, most medical students did not come from the highest ranks of society. Apart from rare exceptions, as sons of medical men and small property owners they possessed a modest middle-class background.⁷⁵ The difference in social rank was even more evident in England. Gentlemen educated at Oxford or Cambridge did not wish to be associated, in their daily practice, with apothecaries trained in a shop. They thus opted instead for professions, like law, which required an education close to their own.

Furthermore, a young man of wealthy extraction would not enter medicine based on his ambitions or to seek fortune because these two goals could be fulfilled in other professions without having to sacrifice one's time, risk one's life, or suffer the daily spectacle of sick people. The progress of medical science and the increasing prestige of the profession which appears in hindsight throughout the nineteenth century, did not yet present attracting features when choosing a career. At Cambridge, for example, students were dissuaded from going into medical science because, it was argued, it would distract them from 'other, more important and potentially more lucrative subjects'.⁷⁶

In both England and France, law presented attractive aspects that medicine could not offer. Although it may have given less moral satisfaction, it brought wealth, useful political connections and allowed time for leisure activities and an undisturbed personal life. Unlike

⁷³ M. J. Peterson, 'Gentlemen and Medical Men: the Problem of Professional Recruitment', *Bulletin of the History of Medicine*, 58 (1984), 4, 457-73. Medical students were constantly advised to always 'act like gentlemen', implying that they did not already possess that status nor generally conducted themselves in a gentlemanly way.

⁷⁴ Caron, *Généralisations romantiques*, 102-3.

⁷⁵ Heller, 'Officiers de santé', 33.

⁷⁶ Weatherall, *Gentlemen, Scientists and Doctors*, 28.

medical practitioners, lawyers were able to maintain a physical and emotional distance from their clients. In his guide, Charton insisted that, in France, there was not a more alluring profession than that of barrister, an occupation which brought all the advantages attached to fortune and public consideration.⁷⁷ Moreover, a complete legal education was shorter and less expensive than studies at the medical faculty.⁷⁸ In England, Thomson also designated the Bar as the most attractive pursuit. Yet, although he granted that the cost of a legal education was inferior to a medical one, he insisted that the chances of success were ‘very remote, and the hopes of remunerative income within the first ten years rationally small’.⁷⁹ However, even if they did not secure a position as barristers, law students could earn a living as solicitors or notaries, or as administrators. By comparison, the young practitioner who failed to build a clientele was left with a knowledge of little use outside the medical profession, except to inform him on his own health.⁸⁰

FITNESS AND PREPARATION

Families were advised to consider their son’s physical and mental qualities before committing him to medical studies. In particular, it was best if the young man enjoyed a healthy constitution to fend off easily the contagious affections he would encounter in his daily practice, and good physical endurance to withstand the exhausting visits to patients. Guidebooks described the mental and intellectual qualities that a young man destined to medicine should possess. Lawrence Potts, for example, alerted the novice to the personal traits necessary to succeed in the profession, insisting on rectitude of principle, benevolence of disposition and unwearied diligence.⁸¹ In his MD thesis dedicated to this subject, Hippolyte Caucanas outlined

⁷⁷ Charton, *Guide pour le choix d’un état*, 47.

⁷⁸ The total amount payable for legal studies was on average 7,000 Francs instead of 10,000 Francs for medicine.

⁷⁹ Thomson, *The Choice of a Profession*, 19. This explains why only gentlemen who could count on family fortune, could venture safely into that profession.

⁸⁰ Charton, *Guide pour le choix d’un état*, 390.

⁸¹ L. H. Potts, *The Hospital Pupil’s Guide, being Oraclar Communications, Addressed to Students of the Medical Profession* (London, 1818), 19.

more particularly gentleness with patients, courage and composure in surgical operations, patience, discretion, prudence, steadfastness, dedication and sensitivity. Caucanas also emphasised the importance of eloquence as a means to reassure patients and kindle their courage.⁸² These qualities might have been disregarded if other factors strongly tilted the balance in favour of medicine, but were closely examined when the career was still undecided. Sir Thomas Acland, for example, wondered for a long time if his son Henry possessed the health and strength of character and purpose necessary for his absorbing vocation.⁸³

In addition to his suitability for the profession, the young man needed a combination of practical training, theoretical knowledge and general understanding of medicine to succeed in his studies. Unfortunately, neither the traditional apprenticeship nor the classical school instruction provided adequate preparation. The teaching dispensed in most secondary schools favoured content over thought and classics over science.⁸⁴ It did not foster the development of proper mental training nor did it accustom students to apply a scientific reasoning to the problems they encountered. In Paris, several students dedicated their doctoral thesis to medical education, displaying a genuine concern for the insufficiencies of preliminary studies. Octave Beaumont, for example, suggested that the primary studies of those who planned to practise medicine should be given special direction.⁸⁵ He argued that an emphasis on science in the *lycées* would better prepare young men for the questions they would face during their medical studies. Félix Ratier, a Parisian doctor, also believed that future medical men needed specific secondary instruction which would provide them with the scientific knowledge necessary for success in a medical school. In 1837, the French government authorised Ratier to open a Preparatory school of Medicine. His school accepted pupils from the age of 12 and prepared them for the *baccalauréat ès-lettres*, the *baccalauréat*

⁸² H. Caucanas, *Qualités indispensables pour l'étude et l'exercice de la médecine* (Paris, 1817).

⁸³ Atlay, *Sir Henry Wentworth Acland*, 34. Henry Acland came from a genteel family and could have chosen several other careers after his studies at Oxford. He was also attracted to life as a clergyman.

⁸⁴ In that sense, secondary studies provided better preparation for the practice of law than that of medicine. They delivered some training on the logical processes to use when faced with a problem, but offered no knowledge of the medical world.

⁸⁵ O. Beaumont, *Réflexions sur les études du médecin* (Paris, 1837), 8. Beaumont stressed the importance of foreign languages, mathematics and drawing, while insisting that Latin and Greek, although important, should take the least possible time in young students' schedule.

ès-sciences, and for medical studies, by providing more practical lessons than the regular *collèges* and *lycées*.⁸⁶ In England, similar remarks were made about the lack of scientific instruction in both public school and university education. In the early 1860s, Matthew Arnold noted that French *lycée* education, which had improved since the 1830s, comprised the scientific instruction and study of the mother-tongue which English schools were often blamed for neglecting.⁸⁷

The cost of medical studies was incentive enough for parents to ensure that their son's interest was deeply rooted and that he was aware of what lay ahead of him. Perusing books on anatomy or surgery would generally give the young man an idea of the dryness of the subject and its complex vocabulary. However, a quick look through medical literature revealed almost nothing of the reality of practice, which a schoolboy from a non-medical background might have only understood through his experience as a patient. To become more familiar with the daily duties and responsibilities of a medical man he had to follow the visits of a local practitioner and gain some practical experience.

In contrast to these concerns which affected the parents of many French prospective medical men, the early training of the majority of English medical students, limited to a short secondary-education curriculum, was deficient in general knowledge and theoretical background.⁸⁸ Furthermore, English apprentices were employed for several months in a manual position where their intellectual capacities were far from being fully exercised, and were not always given enough time to delve into their books. However, they quickly became well attuned to their future profession, especially if their master closely followed their efforts to acquire some scholarly knowledge and gave them ample opportunities for practical observations.

⁸⁶ F. S. Ratier, *Lettre aux médecins français sur la nécessité de spécialiser de bonne heure les études des jeunes gens qui doivent devenir médecins* (Paris, 1838). Ratier's school is not to be confused with the provincial preparatory schools of medicine (name given in 1840 to the former *écoles secondaires de médecine*).

⁸⁷ Arnold, *A French Eton*, 17.

⁸⁸ Denham claimed that many students were so deficient in preliminary instruction that they were forced to resort to private tuition in Latin. Denham, *Verba Consilii*, 29.

SELECTION OF A SCHOOL

France

On both sides of the Channel, financial and geographical considerations, allied with the reputation of the various institutions, determined the selection of a medical school. In France, privileged students who had passed the *baccalauréat* and sought to become medical doctors would generally pursue their education in one of the three medical faculties at Paris, Strasbourg or Montpellier. These schools' teaching was drawn up by the government and presented similar features. However, Paris offered many more advantages than its sister schools. Before the Revolution, Paris was the main centre of surgical instruction whereas Montpellier dominated medical education. As the distinction between surgery and medicine disappeared, so did Montpellier's lead. The centralising Jacobin policies gave pre-eminence to the Paris *École de Santé*, which was granted more professors than Montpellier and Strasbourg.⁸⁹ Furthermore, Paris possessed a network of hospitals at the forefront of medical and surgical care, which offered the best opportunities for clinical observation. Career prospects were also enhanced by studies in a rich metropolis and political centre like Paris. Montpellier and Strasbourg were therefore never in any position to rival the capital. Student guidebooks did not even discuss the choice of a school, as if matriculation at Strasbourg or Montpellier was only dictated by the impossibility of going to Paris. By 1815, more than 800 students were matriculated at the Paris Faculty, while Montpellier and Strasbourg only taught approximately 250 and 100 pupils respectively.⁹⁰ The Paris faculty attracted young men from every corner of the country, whereas students at Strasbourg and Montpellier came from the half-dozen adjacent *départements*.⁹¹ The fear of appearing less

⁸⁹ Paris obtained 12 chairs, while Montpellier and Strasbourg only obtained 8 and 6 respectively. By 1836, this number had increased to 24, 16 and 14 respectively.

⁹⁰ In the early 1830s, the number of young doctors increased dramatically when the *baccalauréat ès-sciences* temporarily ceased to be required but by 1847 the figures had dropped to pre-1830 levels. Paris had 800 students, Montpellier 175 and Strasbourg 77: N. A. de Salvandy, 'Projet de loi sur l'enseignement et l'exercice de la médecine et de la pharmacie; exposé des motifs', *Union médicale* (1847), 1, 86-90.

⁹¹ Caron, *Généralisations romantiques*, 62. The Parisian medical community commonly considered that Strasbourg made modest but honest scientific efforts while Montpellier lived on the memories of its eighteenth-century glory: C. Sachaile de la Barre, *Les Médecins de Paris jugés par leurs œuvres* (Paris, 1845). Faure agrees that Strasbourg showed much more dynamism than Montpellier despite a smaller number of students: Faure, *Histoire sociale de la médecine*, 82-3.

knowledgeable than competitors educated in Paris might have encouraged young men to shun Montpellier and Strasbourg, ignoring family tradition and proximity. Many men who had studied at Montpellier during the Ancien Régime or the Empire sent their sons and young relatives to Paris after 1815. Hippolyte Caucanas, for example, from the Aveyron *département* close to Montpellier, was sent to study in Paris although his father and brother both held MD degrees from the southern city.⁹² Paris's only disadvantages lay in its higher cost of living, its more agitated political life and its urban distractions.

The same financial and geographical reasons prompted the poorer prospective *officiers de santé* to attend the nearest school available. Only Lyons, Toulouse and Rennes consistently trained at least 50 students each.⁹³ Both Toulouse and Lyons possessed a long tradition of medical education and a sizeable hospital network, and they vainly fought to have their schools transformed into faculties.⁹⁴ Meanwhile, Rennes's success was due to the great number of students from Brittany who could not afford to take the MD degree.

England

English medical guides addressed the greater choice offered to English students by presenting the main schools in England, Scotland, Ireland, and the Continent. For the small minority who entered the traditional English university system, the selection of Oxford or Cambridge was usually determined by family tradition and existing ties with a college. Henry Acland, for example, was sent to Christ Church, Oxford, where his father and brothers had studied before him. Connections and school loyalty also greatly influenced the choice of a hospital where the prospective physician went on to study practical medicine. After Oxford,

⁹² Caucanas, *Qualités indispensables*, 3.

⁹³ In November 1846, 803 students matriculated at the *écoles secondaires de médecine* (Amiens, 30; Angers, 36; Arras, 32; Besançon, 39; Bordeaux, 40; Caen, 20; Clermont-Ferrand, 28; Dijon, 24; Grenoble, 31; Limoges, 24; Lyons, 100; Marseille, 55; Nancy, 32; Nantes, 38; Orléans, 36; Poitiers, 24; Reims, 15; Rennes, 70; Rouen, 23; Toulouse, 70; Tours, 36); R. Sénac, *Considérations générales sur la réorganisation de l'enseignement médical et sur la nécessité de convertir l'école préparatoire de médecine et de pharmacie de Lyon en faculté de médecine* (Lyons, 1848), 8. The Orléans school only briefly existed in the 1840s.

⁹⁴ Sénac, *Considérations générales*; J. M. A. Ducasse, *Rapport sur les travaux de l'école préparatoire de médecine et de pharmacie de Toulouse, lues dans les séances solennelles de la rentrée des facultés de l'Académie pendant les années 1840-1845* (Toulouse, 1845).

Acland went to St George's Hospital in London where the surgeon Benjamin Brodie had promised his father to take him under his wing.⁹⁵

For the majority of students, who sought the Society of Apothecaries' and College of Surgeons' qualification, the choice of a school remained very open. In 1815, although London did not possess a university, it was the only English city with organised medical instruction. Four hospitals (St Bartholomew's, St George's, The London, and St Thomas's and Guy's Hospitals—then combined as the United hospitals⁹⁶) offered regular teaching. The metropolis also possessed private schools, such as the Hunterian school on Great Windmill Street, Joshua Brooke's school on Great Marlborough Street and Joseph Carpue's school on Dean Street, which offered most of the practical courses in anatomy and surgery. Additionally, private professors offered lectures on various medical subjects and dispensaries provided instruction in clinical medicine.

To fulfil the course requirements set up by the Society of Apothecaries and the College of Surgeons, most prospective general practitioners travelled to London where they devised their own programme of study by selecting courses provided by professors from various institutions. Around 1815, students commonly attended theoretical courses and anatomical demonstrations in a private school, clinical medicine in a dispensary and clinical surgery in a hospital.⁹⁷ However, before going to London, some had already attended the six months of medical practice required by the Society of Apothecaries in the provinces. The records of that institution demonstrate that in the academic year 1820-21 about 79% of the candidates attended medical practice in London while the remaining obtained their medical instruction in one of 50 other towns around the country.⁹⁸ The medical and surgical instruction dispensed in the provinces was then rather minimal, but the Society of Apothecaries promoted the development of provincial medical

⁹⁵ Atlay, *Sir Henry Wentworth Acland*, 33-5.

⁹⁶ St Thomas's and Guy's Hospitals separated in 1825 and established rival schools.

⁹⁷ For 1820-21 the records of the Society of Apothecaries do not mention the names of the professors who had signed the certificates of attendance for the theoretical courses, as it became customary later. It is therefore difficult to know where students attended theoretical courses at that time.

⁹⁸ Altogether in 1820-21, the 517 candidates to the LSA attended 80 different hospitals and dispensaries: London, Guildhall Library, MS 8241 (Archives of the Society of Apothecaries).

education by recognising the courses offered by individuals and infirmaries. By the mid-1830s, the quality of provincial instruction increased greatly with the creation of medical schools in major provincial towns, but London's lead was already well established and the proportion of students undertaking medical studies outside the capital remained low.⁹⁹

Like Paris, London offered many more advantages to medical students than other provincial cities, in terms of availability of courses, reputed professors, access to hospital and dispensary wards and career prospects. By 1840-41, only 13% of candidates to the Licence of the Society of Apothecaries (LSA) presented certificates of attendance on medical practice obtained outside London. The instruction of the lower rank of medical practitioners was thus less provincial in England than in France where, in 1849, for example, the *écoles préparatoires* trained 39% of French medical students. However, English students with low financial means could still attend lectures at a local establishment for several sessions before going to London for the remaining courses and clinical lessons. By dividing their time in such a way they significantly reduced the cost of their studies, since tuition fees and accommodation were more affordable in the provinces.

In London, the main change between 1820 and 1830 was the decreasing influence of dispensaries and private schools and the rise of hospitals as teaching institutions. Whereas hospital surgeons had provided clinical lessons since the eighteenth century, their physician colleagues had not readily followed in their footsteps. Instead most students obtained medical instruction in dispensaries, which the Society of Apothecaries logically acknowledged in 1815 by recognising the certificates delivered by dispensary physicians. In 1820-21, for example, 81% of the London-trained LSA candidates presented certificates of medical attendance at a dispensary, against 19% at a hospital. The most sought-after dispensaries were those connected with private medical schools or established in the vicinity of hospitals, such as the Westminster General

⁹⁹ These towns were Birmingham, Bristol, Hull, Leeds, Liverpool, Manchester, Newcastle, Sheffield and York. S. T. Anning, 'Provincial medical schools in the nineteenth century' in F. N. L. Poynter (ed.), *The Evolution of Medical Education in Britain* (London, 1966), 121-34. Some teaching was also dispensed in Bath, Exeter and Nottingham.

Dispensary, situated close to the Great Windmill Street school and the Surrey Dispensary, located next to the United hospitals.

In the 1820s, several factors combined to reduce the importance of dispensary teaching. Firstly, hospitals schools started to offer a full curriculum. In addition to providing theoretical lectures and clinical surgery, they opened their medical practice to apprentices and began giving regular clinical lessons. Secondly, hospital surgeons endeavoured to reduce the competition represented by the private anatomy schools by curtailing their all-year-round activity. In 1822, many of these surgeons, as members of the Council of the College of Surgeons, pushed the College to require students to attend three courses of anatomical lectures delivered in the winter sessions.¹⁰⁰ Although the small private schools and the dispensaries with which they were more or less associated still offered a significantly cheaper instruction than hospitals, they could no longer provide a shorter route to qualification by affording summer courses.¹⁰¹ Finally, in 1826, the Society of Apothecaries increased the period required to follow a dispensary's medical practice from six to nine months but left the required hospital experience at six months, making it more convenient to study at a hospital. In September 1830, the Society decided that students could only attend the practice of a dispensary 'connected with some medical school recognised by the Court of Examiners,' thereby restricting the suitable dispensaries to a handful in London and the provinces.¹⁰² From the 1830s, students often confined their studies to a single hospital school instead of attending separate establishments. Figures given to the Select Committee of the House of Commons on Medical Education in 1834 show that in 1831-33 less than 15% of LSA candidates had gained their clinical experience in a dispensary, and in 1840-41 this ratio had dropped to 4%.¹⁰³

¹⁰⁰ Holloway and Singer, 'Early Medical Education', 14-15.

¹⁰¹ Unlike private schools, hospitals did not provide anatomical demonstrations during the summer because of the risks of contagion for patients.

¹⁰² Z. Cope, 'The Influence of Free Dispensaries upon Medical Education in Britain', *Medical History*, 13 (1969), 32.

¹⁰³ *Ibid.*, 33. These last figures refer to dispensaries in London and in the provinces: Archives of the Society of Apothecaries.

Despite their diminishing importance, dispensaries and private schools continued to provide medical instruction up to the 1850s. Several private schools were even established during that period, notably the Webb Street school (1819-1842), the Aldersgate Street school (1825-1848), Dermott's school (1825-1851), the Grosvenor Place school (1830-1863) and Sydenham College (1837-1849).¹⁰⁴ Meanwhile, hospital administrations embraced and lent financial support to the schools which they had allowed to be created within their establishments, redefining the relationship between medical care and medical education.¹⁰⁵ More hospital schools were also opened between 1815 and 1858: Charing-Cross (1821), the Middlesex (1822), Westminster (1841) and St Mary's (1854). But the most significant change in the provision of medical instruction came in 1828 with the creation of the University of London, founded as a radical, non-confessional alternative to Oxford and Cambridge. In contrast with the other schools, which only acted as lesson providers, the London University endeavoured to raise the standard of medical education by substituting detailed six-month courses for a repetition of short summary courses, and by giving 'fuller and more systematic instruction than was formerly imparted in the medical schools of London'.¹⁰⁶ Lectures were to be abundantly illustrated with specimens, drawings, engravings, models, preparations, experiments and operations, and were to include weekly examinations.¹⁰⁷

The new University immediately attracted a large number of medical pupils, encouraging, in turn, supporters of the Church of England to found King's College, which also set up medical lectures (1831). In 1834, the London University College opened its own hospital, the North

¹⁰⁴ Z. Cope, 'The Private Medical Schools of London', in F. N. L. Poynter (ed.), *The Evolution of Medical Education in Britain* (London, 1966), 89-109.

¹⁰⁵ In 1825, the new school at Guy's Hospital was helped financially by the hospital's treasurer after the separation from St Thomas's Hospital. In 1831, teaching started to be systematically delivered at St George's Hospital. In 1834, both St Bartholomew's medical school and the London Hospital medical school were formally created: S. V. F. Butler, 'Science and the Education of Doctors in the Nineteenth Century: A Study of British Medical Schools with Particular Reference to the Development and Uses of Physiology' (University of Manchester, Ph.D. thesis, 1981), 47.

¹⁰⁶ *University of London, Address from the Senate to the Council in support of the Application of the University for a Charter* (1834), 13. Quoted in H. H. Bellot, *University College London, 1826-1926* (London, 1929), 145.

¹⁰⁷ J. Elliotson, *Address Delivered at the Opening of the Medical Session in the University of London, October 1, 1832* (London, 1832), 3-7.

London Hospital, thus positioning itself directly in competition with the other hospital schools, a decision imitated by King's College in 1839. The University's self-professed vocation—granting medical degrees—became possible after it was given a royal charter as a separate entity from the initial University College in 1836. The university thus became an examining body, leaving the teaching to University College, King's College, and the other schools which it recognised as providing adequate education.¹⁰⁸ In 1839, the University of London delivered its first Bachelor of Medicine (MB) and Doctor of Medicine diplomas, therefore providing London students with high quality university training.¹⁰⁹

Confronted with so many options, students required guidance and information on the advantages of the different schools. It is likely that they sought advice from friends and acquaintances already engaged in studies in a particular establishment. An overview of all London schools was also provided by *The Lancet* in the September's 'Student number'. The editor, Thomas Wakley, described each school separately, gave the professors' names, the courses' cost and commented on the available facilities.¹¹⁰ He advised students to determine their particular needs and choose the school most adapted to their circumstances. After the ability and reputation of the teachers and the intrinsic advantages of the school, the most fundamental element to consider was its location in relation to lodgings and other places of study.¹¹¹ In line with his condemnation of hospital schools as monopolies, Wakley did not hesitate to recommend private schools. In September 1829, for example, he advised students to share their time between the Aldersgate Street school and the nearby St Bartholomew's Hospital.¹¹² In 1836, he recommended University College, arguing that it provided a thorough medical teaching in a

¹⁰⁸ W. H. G Armytage, 'Medical Education and the Genesis of the English Civic Universities, 1810-1836', *Practitioner*, 171 (1953), 294.

¹⁰⁹ Bellot, *University College London*, 297.

¹¹⁰ The first 'Student numbers' compared in various charts the price of each course in the different hospital schools. From 1836, *The Lancet* presented each school separately. This is a further element to prove that students no longer picked courses that they were interested by in each school.

¹¹¹ In 1836, sensitive to the ignorance of young men who visited London for the first time, Wakley accompanied his account of the medical schools with a map of these institutions throughout the city: T. Wakley, 'Advice to Medical Students on Coming to the London Schools', *The Lancet* (1836-1837), i, 16. See Illustration 1, page 284.

¹¹² Cope, 'The Private Medical Schools', 101. Butler, 'Science and the Education of Doctors', 23.

hospital purposely designed for that end and rewarded merit through competitive examinations, advantages which greatly outbalanced its higher cost.¹¹³

CONCLUSION

Even before young men entered the medical school, their social status, financial position and family connections directed them towards the higher or lower ranks of the profession. Considering the variety of youths who undertook medical studies, there is no single answer to the motives behind their choice. To a wealthy young man, a medical career could represent an opportunity to serve the community in a position of social standing, although it neither brought the riches nor the comfort other learned professions offered. For more modest young men, it may have meant rising to a higher social class or simply perpetuating the family tradition in a rational economic way. Others simply selected medicine because dedication was rewarded by an honourable living. Whatever the reasons and circumstances behind the final decision, medicine remained a demanding discipline into which young men were advised to enter well prepared. Whether school pupils or apprentices, they were warned to undertake some personal study of medicine prior to attending the necessary courses. Once at the medical school their preparation would be put to the test. In the dissecting-room and in the hospital wards they would realise whether or not the decision to pursue medical studies had been wise.

¹¹³ Wakley, 'Advice to Medical Students', 19. In 1830, an article published in *The Lancet* accused University College of being much more expensive than the other schools. The College defended itself by demonstrating that it offered a more complete set of courses than the majority of schools, and that a 'course' corresponded to more hours at UCL than elsewhere, which explained the difference in price: *The Lancet* (1830-1831), i, 26. In the 1830s St Bartholomew's Hospital, University College and King's College were the most expensive schools. The records of the Society of Apothecaries show that in 1840-41 University College and Guy's hospitals were the two leading schools, in terms of number of students, followed by St Bartholomew's and St George's. See Figure 2, page 272.

2. DURING MEDICAL STUDIES: FIRST STEPS TOWARDS INSTRUCTION

A large proportion of those whom I now address are assembled for the first time, for the purpose of pursuing their studies in the medical school of this hospital; and their feelings on this occasion are not unknown to me; for to a great extent at least they must be such as I myself experienced, when long ago I was situated as they are at the present moment.¹

¹ Sir B. C. Brodie, *An Introductory Discourse on the Duties and Conduct of Medical Students and Practitioners. Addressed to the Medical School of St George's Hospital* (London, 1843), 5.

Emancipated from the immediate supervision of masters and teachers, young men found freedom and excitement in the life of a medical student. However, before enjoying this new liberty and the pleasures of the city, their immediate attention was turned to the responsibilities embodied in the medical school. Whatever degree of preparation or medical knowledge they possessed when they entered the establishment, matriculation truly represented their admission into the world of medical studies. The majority would have left a small country town and now found themselves in the centre of scientific discoveries and surgical advances. Although they may have already gained some knowledge of disease through readings or apprenticeship, they still had almost everything to learn. Immersion into practical studies in the dissecting-room and the hospital wards would form their approach to medicine, obliging them to adapt to a demanding environment and acquire the necessary clinical detachment. When entering a medical school, students discovered the broad programme of their exertions for the next few years and realised the extent of the task they had assigned to themselves.

MATRICULATION AND OPENING DAY

Matriculation

New students often arrived in the metropolis a week before the start of term to arrange lodgings and take care of other administrative details. After these matters were settled, a few days might remain to discover the bustling atmosphere of the city and familiarise oneself with the new surroundings. The medical school was invariably the focal point of these scouting journeys. With its imposing buildings and its portraits of great medical men, it represented a temple of learning where pupils would be initiated into the knowledge, secrets and expertise collectively possessed by the profession.

The first contact with the school administration occurred with matriculation. In Paris, in addition to collecting the first quarterly fee, matriculation sought to verify that new pupils presented the required standards of education and conduct. Young men had to provide their

birth certificate, their *Baccalauréat* diploma, a testimonial of moral character and, if they were still minors, a letter in which their father or guardian agreed to their pursuing medical studies.¹ If, furthermore, their parents did not live in the capital they had to be accompanied by a Parisian gentleman representing the family. Theoretically, this guarantor (*répondant*) offered an assurance that the pupil would be studious and supported financially by his family.² In reality, the *répondant* did not necessarily know the family he represented and did not have any further interaction with the Faculty. When Paul Broca registered at the Paris Faculty in 1841, his expected guarantor was unable to wait among the crowd of students, but before leaving he found another man to replace him. When Broca narrated the episode in a letter to his parents the following day he had to admit that he did not even remember the man's name.³

In London, hospital schools were not responsible for examinations and qualifications and did not have any such requirements. Matriculation simply settled the financial contract between the student and the teaching institution. Early in the nineteenth century, students matriculated and made payment for each course directly to the professor. Their first encounter therefore established a provider-client relationship which was not without further consequences. When medical schools developed an administration and professors decided to pool tuition fees, treasurers collected money directly from students. In a school which prided itself on the attention it gave its pupils, like King's College, matriculation represented a first opportunity to assess the young man's circumstances and offer advice. Shephard Taylor recalled in his diary that the sub-dean who signed his matriculation card also asked him about his previous studies and recommended him to purchase certain books.⁴

¹ The testimonial of moral character had to be delivered by the civil authorities of their last address. A similar certificate was also required by the Society of Apothecaries before young men took the LSA examination. The Society recommended that the master, who had observed the candidate fulfil his professional duties and interact with patients, write the certificate.

² This system was introduced in November 1820 by the ordinance of 5 July 1820. M. A. Pinet, *Lois, décrets, règlements et circulaires concernant les facultés et les écoles préparatoires de médecine* (Paris, 1882). According to the regulations, landlords could only act as *répondants* if they were authorised to do so in writing by the students' families.

³ P. Broca, *Correspondance, 1841-1857* (Paris, 1886), vol. 1, 20.

⁴ S.T. Taylor, *The Diary of a Medical Student during the Mid-Victorian Period, 1860-1864* (Norwich, 1927), 2.

Some London licensing bodies also ran a matriculation system. In 1830, the Society of Apothecaries required students to register their attendance tickets at Apothecaries' Hall at the beginning of each session.⁵ This permitted the Society to keep an eye on their studies and prevent any forgery of certificates.⁶ However, the Society did not check that students possessed a sufficient general background when matriculating at the medical schools. The University of London was the only institution to ensure that its students possessed a determined level of preliminary instruction. It required candidates for the MB to either hold an Arts degree or undertake a thorough matriculation examination.⁷

Opening day and introductory addresses

On the first day of the academic year, a ceremony involving the entire educational community solemnly welcomed new students into the school. It presented them with the opportunity to learn more about the establishment, discover the professors and meet fellow pupils. At the Paris Faculty of Medicine, the opening day was a public event presided over, until the 1820s, by a high-ranking University authority,⁸ while in the London hospital schools governors and other personalities joined professors and pupils for the occasion. At University College and King's College, students even 'donned once more the classic toga and unpicturesque mortar-board' to reaffirm the link with the University of London.⁹

The introductory ceremony consisted mainly of a discourse, usually given by one of the professors randomly designated among his peers. Whereas in Paris the address continued an

⁵ [Society of Apothecaries], *Regulations to be Observed by Students Intending to Qualify Themselves to Practice as Apothecaries in England and Wales, 1832* (London, 1833), 9.

⁶ From the early 1830s, the Society of Apothecaries provided students with a single form to be filled by all their professors, which replaced the previous detached papers, more liable to forgery. *RSCME*, vol. 3, 45.

⁷ This examination included Mathematics, Natural Philosophy, Chemistry, Classics, English language, Outlines of History and Geography; French or German languages: *The University College, London, Calendar for the Session 1853-1854* (London, 1853), 247.

⁸ This personality was often an Academy Rector, University Inspector, or even the Public Instruction Minister. See for example A.M.C. Duméril, *Séance publique de la Faculté de Médecine de Paris, 25 novembre 1816. Discours prononcé par A.M.C. Duméril, Président* (Paris, 1816).

⁹ Taylor, *The Diary of a Medical Student*, 2.

Ancien Régime tradition, it only appeared in the 1810s and 1820s in the main London hospitals, once these institutions provided a complete set of courses and emerged as schools.

Although introductory addresses were given on the same occasion and for the same general purpose of welcoming students, their content differed significantly on both sides of the Channel. In the first years of the Paris Faculty of Medicine, this public meeting provided the opportunity to present the school's educational achievement to the political authorities and to pay a tribute to its professors who had died during the year.¹⁰ It also allowed the Faculty of Medicine to offer a glimpse into the scientific achievements of the Société de l'École de Médecine, its research organ, which represented the greatest medical authority until the creation of the Académie de Médecine in 1820.¹¹

From 1820, when the school lost its official scientific mandate, addresses no longer included an account of research undertaken.¹² Instead, speakers developed their ideas on a particular scientific point or on the state of the profession. Many of them dedicated part of their discourse to a brief history of medicine, emphasizing recent progress and outlining the scientific and social benefits. By celebrating medicine they created a sense of community into which students, as prospective members of the profession, were naturally included. Eulogies continued to form a significant part of addresses, a characteristic which Armand Trousseau regretted in his own 1842 speech. He argued that tributes left only a marginal place for 'the proclamation of success, the distribution of encouragement, the provision of useful advice and even precious teaching' to the pupils.¹³ Jean Cruveilhier's 1836 discourse is one of the very few addresses entirely directed at students. Initially, Cruveilhier, recently appointed at the new chair of morbid anatomy, had planned to present his discipline. But he chose instead to move away from

¹⁰ Often, the government representative handed out the prizes for which students had competed in June.

¹¹ The Société de l'École comprised the Faculty professors and several distinguished members of the Parisian medical community.

¹² Until 1821, the addresses were regularly published by the Faculty itself. After that date however, only a few introductory speeches were printed by their authors.

¹³ A. Trousseau, *Discours prononcé par M. le Professeur Trousseau dans la séance publique de la Faculté de médecine de Paris du 3 novembre 1842* (Paris, 1842), 3.

tradition and speak on the duties and morality of medical practitioners. To clear students' misconceptions about the obligations and responsibilities attached to the title of doctor he devoted his discourse to the methods of instruction as well as the duties of practitioners.¹⁴ Unlike Cruveilhier, most speakers refrained from offering direct advice. Pupils had demonstrated by their political action and general conduct inside and outside the Faculty in the decades after 1815, that they disregarded any advice on behaviour.¹⁵ Therefore, professors tended instead to preach by example and use the eulogies as the model to be followed, as if the account of a great man's life sufficed to provide a student with all he needed to succeed in his studies. In 1850, for example, Alfred Velpeau addressed Faculty students and pronounced a tribute to Nicolas Marjolin, who had taught surgical pathology for over thirty years. He concluded by saying that if Marjolin's life appealed to them, they needed only to find its elements in themselves. 'With some intelligence, accurate judgement, work and perseverance, with a lot of work especially' several among them would be able to become Marjolin's equal.¹⁶

In contrast to Paris, London addresses were primarily directed at new students. Very often speakers offered remarks and advice to guide them on the best way to pursue their studies. Understandably, guidance was more indispensable to English students, whose greater freedom was often accompanied by confusion, than to their French counterparts who were bound to a curriculum and a set of examinations. Therefore, while French orators focused on science and professional matters, their English colleagues delved into the life of students both inside and outside the school.¹⁷ The London addresses thus illustrate that the teaching body viewed medical students as young men who needed moral guidance and lines of conduct rather than professional

¹⁴ J. Cruveilhier, *Des devoirs et de la moralité du médecin. Discours prononcé dans la séance publique de la Faculté de Médecine de Paris du 2 novembre 1836* (Paris, 1837), 4-5.

¹⁵ Confidence in the French medical system may have prompted professors to neglect the value of any discourse on the situation of students: after all, a pupil's efforts would be revealed during the regular examinations, so there was no need for admonitions.

¹⁶ A. Velpeau, *Discours prononcé par M. le Professeur Velpeau dans la séance publique de la Faculté de médecine de Paris du 4 novembre 1850* (Paris, 1850), 31.

¹⁷ Scottish addresses resembled the English ones and bore the same paternal tone. See for example W. T. Gairdner, 'Introductory Address Delivered in the Extra-Academical School of Edinburgh, to the Students of the Session 1855-1856' in *Medical Education, Character and Conduct. Introductory Addresses Delivered to Students of Medicine in Edinburgh and Glasgow, 1855-1866-1882* (Glasgow, 1883).

men looking for advice on methods of study. Pedagogical recommendations often evolved into warnings about behaviour. The professors may have been encouraged to deliver their deluge of advice by their higher social status. While they were all physicians and pure surgeons with a gentlemanly background and sound knowledge of social graces, the great majority of pupils were only apothecaries' apprentices who lacked a genteel upbringing. It is likely that professors urged students to conduct themselves appropriately to satisfy the hospital governors who were concerned with the proper running of the establishment and often saw the presence of students as disruptive. It is also probable that London professors were more concerned with the well-being of students than their Parisian colleagues. London schools were much smaller than the Paris Faculty and professors thus maintained closer relationships with students.¹⁸

Advice to students

Whereas Parisian students gained little information on their studies from the annual discourse, their English counterparts were given recommendations about many subjects that directly concerned them. London orators first endeavoured to reassure pupils about the difficulties they would inevitably encounter during their first months of studies. By evoking their own days on the benches of a medical school, professors attempted to bridge the gap between students and teachers. They claimed to understand that, freshly arrived from a quiet countryside home and confronted with a big and busy metropolis, new students were lost and rightly wondered if they would be able to adapt to their new environment and pursue their studies profitably.

Ultimately, the discourses endeavoured to define the future relationship between pupils and schools. They described what students—who expected to receive an appropriate education in return for their fees—were entitled to and what professors required from them. Orators were

¹⁸ The apprenticeship model may have influenced this attitude. Professors felt responsible for the students they instructed. The paternal views preached in the discourses probably echoed those pupils had received from their fathers and masters before leaving for London.

eager to reassure students that obligations were not exclusive to them. After detailing the rules that pupils would need to abide by and the duties they would have to carry out, the professors sometimes outlined their own responsibilities, particularly the regular delivery of lectures and clinical lessons. W. R. Basham stated in 1852, for example, that any hospital practitioner who failed to take his fair share of teaching was unworthy of his post.¹⁹ Furthermore, students were assured that although they felt isolated, the school community would respond to their calls for help and advice.

English professors highlighted the amount of knowledge expected from students and warned of the difficulties in understanding how the different branches combined together to form a science. They acknowledged that students were often ‘bewildered by the number and variety of subjects’ and struggled to transform the scattered information they received into a coherent corpus.²⁰ They therefore advised students to focus at first on anatomy and a few other subjects. Although they sometimes offered a chronology of the branches of learning to examine, they did not go into detail for every subject, leaving individual professors to explain the best procedure in their own domain.

Professors claimed that the right attitude towards work was as important as the right method of study and represented a definite factor for success. They endeavoured to sweep away any anxiety with an optimistic presentation of opportunities. To gain a profitable education, students needed only to look into themselves and muster dedication and perseverance. As long as they worked seriously, observed, analysed and gained every fragment of knowledge possible, they were on the right path to successful studies and ultimately to a brilliant career. Moreover, their efforts would not only bear fruit during their training, they would be a life-long investment, teaching them to think and act efficiently.

The positive picture of the medical education system painted by professors legitimated the assertion that all these efforts would find their reward. The privileges enjoyed by the highest

¹⁹ W. R. Basham, *Introductory Lecture Delivered at the Westminster Hospital on Friday, October 1st, 1852* (London, 1852), 33.

²⁰ Brodie, *An Introductory Discourse*, 13.

professional strata were reduced to insignificance and recommendations were deemed as useless in passing examinations as were connections in obtaining a hospital position. Consequently, pursuing professors for patronage was futile. Since medical practitioners could count only on their own knowledge and talent, students were advised to focus their efforts on acquiring a solid medical education and proper training.

After identifying work as the main virtue of medical students, teachers revealed idleness as the greatest threat. Students were reminded that they had a duty to fight indolence for the benefit of their studies, but also as an ethical obligation of perseverance towards society and science, and out of respect for their families and teachers.²¹ Whereas idleness may have been only a very regrettable and damaging weakness, misconduct was firmly denounced as unacceptable. Professors expressed warnings about the consequences of such acts, especially in the hospital wards and dead-houses. Pupils were reminded that they were only accepted in the wards on the condition that they would behave appropriately without disturbing the repose of the sick.²² The respect due to body parts in the dissecting-rooms was also a recurrent theme. Professors tried to protect the fragile public tolerance of dissection from students' potentially amoral behaviour by repeatedly calling for the reverence of all persons and bodies. Although an ethical argumentation was used, their stance revealed as much a religious or philosophical impetus as a wish to protect the profession, which greatly owed its progress during that period to dissection and vivisection.²³

Proper behaviour demonstrated respect for the school and its efforts to provide the best instruction possible. But more importantly, a gentlemanly demeanour was very desirable in all circumstances for professional reasons. Many upper-class patients chose a practitioner on the recommendation of one of their relatives or friends, and preferably in as high a social stratum as

²¹ Speakers particularly evoked the shame that students would not fail to feel later if they disappointed their relatives.

²² The insistence on that issue was voiced first of all with the patient's well-being in mind. But that request was also made for the sake of science as an undue strain on patients could produce symptoms that would not have appeared had they been left in peace, and jeopardise the observation of disease.

²³ No mention of the dangers that students might come in contact with in the dead-houses and hospital ward was expressed in the discourses. The students might have received advice on these matters in the dead-houses or during courses. Nevertheless, this absence shows that speakers wanted to paint a positive picture of medical studies, and present idleness as the only permanent danger.

they could afford. In the competitive world of medical practitioners, London students who aspired to attend these patients needed to bridge the social gap that separated them from university-trained physicians, for whom distinction in society was no mystery. Benjamin Brodie, for example, argued that the world cared little about the distinctions between the various titles and diplomas, or between the different branches of the profession. He asserted that a well-conducted and well-informed man would be ‘just as well received in society if he belonged to one grade of the profession as if he belonged to another.’²⁴ Since the majority of London pupils came from the countryside middle-class and had had few opportunities to meet and mix with upper-class families, they were encouraged to adopt the highest standards of behaviour as early as possible.

CLINICAL DETACHMENT

Although any advice benefited students, words of guidance were insufficient to help them adapt to their new working environment. Unlike theoretical courses, which did not represent a major change from preliminary education, practical instruction was new in its method and in the intensity of emotions it produced. Even for an apprentice who had assisted his master at the bedside of patients, hospital wards and surgical theatres represented a challenging new environment. For all students, entering the dissecting-room was usually the most difficult step to take. To study anatomy, the foundation of their future medical knowledge, early nineteenth-century pupils needed to face death and make it the object of their work. As Ruth Richardson writes, ‘the study of anatomy requires in its practitioners the effective suspension or suppression of many normal physical and emotional responses to the wilful mutilation of the body of another human being. It requires working beyond the range of ordinary emotions.’²⁵ Richardson also argues that clinical detachment can be seen as a historical process both in the lives of individual

²⁴ Brodie, *An Introductory Discourse*, 19.

²⁵ R. Richardson, *Death, dissection and the destitute* (London, 1987), 30.

clinicians and, over a much longer period, in the history of medical science. Clinical detachment clearly evolved during the nineteenth century as public understanding of dissection moved gradually from awe and fear to respect for scientific research. However, despite the gradual diffusion of this detachment throughout society, dissection remained a frightening personal experience which students had to go through on their own.

Medical students of the period have described the revolting sights, noises and smells that gripped anyone who entered a dissecting-room. They often recalled their impressions in very crude and shocking language as if only such words could convey their feelings and depict the dreadful tasks which they had to undertake. The composer Hector Berlioz, pushed by his father into a medical career, evoked in his memoirs the horror he felt the day he entered a dissecting-room for the first time:

The sight of that horrible human charnel house, these scattered limbs, grinning heads, open skulls, the bloody cesspool in which we walked, the revolting smell which emanated from it, the swarms of sparrows wrangling over scraps of lungs, the rats gnawing bloody vertebrae in their corner—all this filled me with such terror that I leapt through the window of the dissecting-room and fled home as quickly as I could, as if Death and its hideous train were at my heels. For the next twenty-four hours, I remained under that first impression, unwilling to hear anymore about anatomy, dissection, nor medicine and plotting a thousand mad schemes to escape from the threatening future prepared for me.²⁶

However, his friend Alphonse Robert eventually convinced him to return to the dissecting-room and Berlioz himself was surprised, when he walked in, to feel nothing more than ‘a cold distaste’. From then on, he attended dissections, ‘if not with interest, at least with resignation’. To fight his repugnance he found inspiration in his love for music and sang opera tunes while dissecting his subject, instead of reading Bichat.²⁷ If a sensitive artist like Berlioz eventually gave in to clinical detachment, a student with a more scientific mind, who was able to fight fear and apprehension, could acquire it more quickly. In a letter to his parents, Paul Broca almost rejoiced in the macabre description of his new working environment:

I have been to the dissecting-rooms twice. I have seen students in blue overcoats bent over half-open corpses, cutting, sawing, clipping, rummaging through human flesh,

²⁶ Berlioz, *Mémoires*, 61.

²⁷ *Ibid.*, 63.

sinking their hands in it and taking them out covered in blood and pus. I have seen them like crows around a decaying carcass, squeezed up five or six around the same corpse, one chopping off the arm, the other the leg, a third the head, a fourth one turning over and over half-corrupt entrails. I walked into this stinking room, among arms and legs astray on the floor, feeling at every moment my foot slipping on a piece of human flesh or on a bone.²⁸

Broca wrote that he immediately convinced himself that dissection had to be appreciated from the sole point of view of science, and that cadavers should only be seen as soulless matter. He told himself that the corpses were not suffering and with this resolve was able to attend the dissection unemotionally. By his second visit, he even started to get used to the smell. He was therefore proud to write to his parents that ‘the great obstacle’ had disappeared and that he would be able to become a physician without inconvenience.²⁹

At times, though, clinical detachment could fail a student. Feelings and emotions were more difficult to combat when dissection was performed on a child or a woman. Philosophical questions arose more easily in front of a young body ravaged by disease. Shephard Taylor wrote in his diary that he once had to make the post-mortem examination of a beautiful young girl who had died of typhoid fever. Seeing her dead body lying on the post-mortem table filled him with sadness and he could not help thinking how broken-hearted her lover, if she had one, must have felt at her untimely death.³⁰

Walking the wards and listening to clinical lessons provoked a similar kind of apprehension but the sight of severely affected patients invited compassion more than it produced fear. The misery of disease and pain, the general atmosphere of suffering pervading the wards contributed to a feeling of helplessness, amplified by the scepticism surrounding therapeutic efficiency. Although students needed to retain a certain distance from the patients’ sufferings so as to observe disease without interference, nothing prevented them from displaying empathy. In his 1836 introductory address, Cruveilhier claimed that clinical detachment did not imply a cold reserve towards patients. Medical and surgical practice removed the physical susceptibility which

²⁸ Broca, *Correspondance*, vol. 1, 8-9.

²⁹ *Ibid.*, I, 9.

³⁰ Taylor, *The Diary of a Medical Student*, 131.

blurred the senses but left intact the sensibility of the soul ‘which sympathizes with sufferings and enables the practitioner to remain calm and steadfast’.³¹

Suffering was not only the product of disease, it was also characteristic of the healing process and could be inflicted by the surgeon’s hand. Clinical detachment was essential in surgery, even where the student had no direct role in the treatment. Simply watching an operation could represent an ordeal. Before the advent of anaesthetics conscious patients were held down onto the operating table by assistants. Their screams would echo in the theatre and undoubtedly terrify the first-time spectator. Charles Darwin admitted that he had only seen two operations during his studies in Edinburgh and that they had haunted him all his life.³² During a particularly difficult operation at St Thomas’s, the young Hampton Weekes almost fainted. He wrote to his brother and father that he had ‘felt something indescribable’ as the surgeon grasped the artery with the tenaculum, but immediately looked away and recovered. He assured them that this weakness would not happen again and that he felt he could have even performed the operation himself. His father advised him to take a ‘bumper of brandy’ and buy a small bottle of volatile salts or a little snuffbox, but confirmed that the best way to avoid this sick feeling was to take his eyes off the patient at times.³³ And in due course, he would no longer need to.

TIMETABLES

At the medical school students had to adapt to a work rhythm different from that of apprenticeship or secondary education. In both Paris and London, the academic year was divided into a winter session and a summer session defined by the teaching of anatomy and botany. In the absence of any means of refrigerating corpses, dissections were restricted to winter time. In summer the rising temperatures and the abundance of insects did not allow for long and

³¹ Cruveilhier, *Devoirs et Moralité du Médecin*, 21. This idea had been expressed by Hippolyte Caucanas in his 1817 thesis: ‘Far from us the barbarous thought of showing insensitivity to the anguish of the pains that the diseased feel! Let us learn to identify ourselves with their sufferings, their grief; let us share them!’: Caucanas, *Qualités indispensables*, 17.

³² Richardson, *Death, Dissection and the Destitute*, 41.

³³ J. Ford, *A Medical Student at St Thomas’s Hospital, 1801-1802: the Weekes Family Letters* (London, 1987), 44.

adequate conservation. However, spring and summer time, favourable to plants and flowers, represented the ideal period for the botany course. In London, the winter session ran from 1 October to 15 April and the summer session from the 1 May to the 31 July. In Paris the winter session started on the first Monday of November and ended on the 31 March while the summer session started on the first Monday of April and ended on the 31 of October.³⁴

Medical instruction was therefore divided between winter courses and summer courses. In Paris, despite the division of the four years of study into sixteen quarters, each course was one semester's length. In early nineteenth-century London, however, a two-course system was the norm during the longer winter session, so that students could quickly get an understanding of all the subjects. The first winter course started in October and ended in the middle of January while the second started immediately after the first and ended in late April.³⁵ This distribution of lectures was challenged by University College, which adopted the six-month course and thus fulfilled its ambition of higher standards by providing more hours of instruction in each course than other medical schools. However, this disparity prevented the Society of Apothecaries and the College of Surgeons from judging students' instruction adequately. In the early 1830s they therefore set a minimum number of lectures per course. By then the corporations had increased the number of years of studies and established a clear curriculum. Professors no longer needed to teach two courses on the same subject during a single winter session. Instead, courses tended to stretch over the whole session, which then enabled the corporations to increase again the number of lectures per session.

Whereas, for practical reasons, the organisation of the year revolved around the same seasonal subjects in Paris and London, the daily schedules of medical students differed in many ways. In Paris, hospital attendance and practical courses greatly influenced the timetable. The physical distance between the Faculty of Medicine and the hospitals necessitated that clinical

³⁴ Although the winter and summer semesters technically covered the entire year, the Faculty was actually in vacation during the months of September and October. In addition to the summer holidays, Paris and London students enjoyed a fortnight at Christmas and another between the two sessions.

³⁵ *RSCME*, vol. 3, 44-5.

lessons be scheduled separately from Faculty courses. Although most students attended the regular clinical lessons at the Hôtel-Dieu and the Charité, which were less than half-an-hour from the Faculty, others wished to attend the medical or surgical practice of more remote institutions, which were less crowded or offered specialised cases. Furthermore, some students held hospitals positions and were required to follow the surgeons and physicians on rounds. To avoid any conflict between hospital duties, clinical lessons and faculty courses, hospital rounds took place early in the morning, between 7 and 10 a.m. in winter and 6 and 10 a.m. in summer. Courses at the Faculty did not start before 10:30 a.m., to allow all students enough time to arrive from their respective hospitals. The other fixed element of the timetable was practical anatomy, which took place between 12 and 3 p.m. when students could enjoy the best winter light. Formal lectures were therefore scheduled during the remaining available hours, between 10:30 a.m. and 12 p.m. and between 3 and 5 p.m. Courses were purposely not scheduled later so that students could attend the evening rounds at the hospitals.

The London timetable was based on an entirely different structure which, according to Susan Lawrence, emerged in the 1780s and was maintained and solidified by the rivalry between the various teachers. At the end of the eighteenth century the lecturing day generally respected the following pattern: 'Medicine, chemistry and materia medica in the early morning; midwifery at mid-morning or late afternoon; anatomy at 1 or 2 pm; and surgery at 7 or 8 in the evening.' The many courses on offer enabled young men to attend lectures on almost all the subjects of interest in a single day.³⁶ Direct competition on a course-by-course basis decreased when medical schools began offering all the courses needed to qualify as general practitioner and students became increasingly faithful to a particular school. However, the traditional day composed of different lectures remained. Many courses were scheduled daily in London, which contrasted with the alternate system in use in Paris where lectures were delivered either on Mondays,

³⁶ Susan Lawrence argues that this multiplication of courses pushed students towards general practice as they were able to learn all aspects of the medical profession at once. However, it can also be contended that teachers were only responding to demands for such an arrangement. Lawrence, 'Science and Medicine', 404-5.

Wednesdays and Fridays or Tuesdays, Thursdays and Saturdays. However, this alternate system grew in the London schools when the two-course system disappeared.

Another major difference between the London and Paris timetables consisted in the time dedicated to ward-walking. Because London medical schools had developed inside hospitals, most of the instruction could be found in a single place. Unlike French hospital practitioners who spent their mornings and evenings at the hospital and dedicated their afternoons to their private patients, London hospital surgeons and physicians made their rounds around noon and attended to their private patients in the morning and later in the afternoon. This arrangement meant that London students started their day later than their Parisian counterparts. The first courses usually began at 9 or 9:15 a.m. and lasted until 7 or 8 p.m. Since lecture-theatres, hospital wards and dissecting-rooms were situated next to each other courses could be scheduled every hour.

REQUIREMENTS

In the first few days at the medical school students discovered both the programme of their studies and the content of the examinations they would later undertake. A glance at the course lists and at the subject of the tests suffices to understand how much medical studies differed according to the diploma prepared. The structural differences between the educational models employed in the medical schools of London and Paris resulted from the influence of tradition, the power of the schools, and the aims of regulating authorities. The English corporations and the French government both sought to create particular kinds of practitioners, with specific degrees, training and professional entitlements. The medical instruction of the different groups of students was therefore designed to conform to a certain view of medicine and to fulfil specific demands from the government or the profession. It had to be general yet thorough enough for medical men to practise safely the healing art, and adequate for the particular kind of patients and cases each category of practitioners was most likely to encounter.

In England, where diplomas were meant to recognise an expertise in a specific domain (medicine, surgery or pharmacy), requirements presented a dilemma for the corporations. Medical and surgical cases often overlapped and general practitioners sought to practise both medicine and surgery. Their expectations encouraged the regulating authorities to balance concepts of what instruction should ideally entail, with professional and economic factors pushing towards a more ‘rounded’ training.

In France, the government determined the curriculum and the content of the *doctorat* examinations and also controlled admission to the *officiat*. The provincial municipal courses which had developed independently at the end of the eighteenth century came under the authority of the University in 1820, and their teaching was unified and defined by the Ministry of Public Instruction in 1837.³⁷ In England, on the contrary, the control of medical instruction was exerted without government intervention. Instead, it was shared, with many tensions and conflicts, between several professional bodies and educational institutions (hospital schools and universities), each reigning over a specific domain. The Society of Apothecaries, and the College of Surgeons to a lesser degree, took charge of regulating general practitioners, while the universities and the College of Physicians were responsible for university graduates. The medical schools, while providing instruction in accordance with the requirements set out by these institutions, defined and organised their courses independently.

France

In France, with the creation of the *écoles de santé*, high standards of instruction were set to ensure that students were provided with a solid education. The Council of Public Instruction wished medical students to become familiar with the entire corpus of knowledge related to the healing art.³⁸ To fulfil such an ambitious programme, the Paris École de Santé was endowed with no less than twelve chairs, each served by a professor and an associate-professor (*professeur-*

³⁷ Arrêté of 26 November 1837. Pinet, *Lois, décrets, règlements et circulaires*, vol. 2, 96.

³⁸ [École de Santé de Paris] *Plan général de l'enseignement dans l'École de Santé de Paris* (Paris, 1794).

adjoint).³⁹ In 1823, the position of associate-professor was abolished and the chairs were distributed between two professors, each responsible for one discipline.⁴⁰ Furthermore, three additional professorships of clinical medicine and two of clinical surgery were created while a chair of clinical midwifery replaced that of clinical proficiency.⁴¹ Apart from the creation of the chair of general pathology and therapeutics in 1831 and the chair of morbid anatomy in 1835 the Paris Faculty only experienced a minor reshuffling of courses, in 1837 and 1854.⁴² In 1835, the full requirements for qualification as a medical doctor in Paris therefore included attendance at eighteen different courses in addition to dissections. The ordinance of 3 October 1841 completed the requirements for practical experience by obliging students to assist hospital staff for a year in dressing wounds and delivering basic care to patients.

The requisites for the *officiat* were a simplified version of the broad theoretical and practical *doctorat* programme. Although the *écoles secondaires* originated from local initiatives and did not all provide identical instruction, they delivered similar basic courses of anatomy, medicine and surgery, to prepare students for the *officiat* examination. In 1837, this instruction was regulated to include dissections, surgical operations and eleven disciplines, and five years later the pupils of the *écoles préparatoires* were required, like Faculty students, to undertake hospital training for one year.⁴³

³⁹ These courses were anatomy and physiology, medical chemistry and pharmacy, hygiene and natural philosophy applied to medicine, internal pathology (medicine), external pathology (surgery), natural history, operations, clinical surgery, clinical medicine, clinical proficiency and rare clinical cases (*Clinique de Perfectionnement*), midwifery, forensic medicine and history of medicine. Professors were in charge of their course but were asked to work closely with their assistants, so that the latter could replace them if need be. In addition to the twelve courses taught by the professors, which covered sixteen disciplines, the Dean of the Faculty occasionally lectured on Hippocratic medicine in acute diseases and on the history and practice of rare cases, and the librarian lectured on medical bibliography: A. Corlieu, *Centenaire de la Faculté de Médecine de Paris (1794-1894)* (Paris, 1896), 55. The annual salary which *écoles de santé* professors received from the government was not sufficient, and they complemented their income with private practice.

⁴⁰ For example, the chair of anatomy and physiology was transformed into one chair of anatomy and one chair of physiology.

⁴¹ In 1823 the Paris Faculty thus possessed 23 professors. The Dean and the librarian were no longer expected to deliver additional courses. Huguot, *Les Professeurs de la Faculté de Médecine*, 649-51.

⁴² See Figure 8, page 280.

⁴³ The eleven disciplines were chemistry, pharmacy, natural history, materia medica, anatomy, physiology, medicine, clinical medicine, surgery, clinical surgery, midwifery and the diseases of women and children. 'Nouvelles dispositions réglementaires sur les écoles secondaires de médecine', 26 November 1837. Despite the high number of subjects the teaching staff remained small. The ordinance of 13 October 1840 which organised the preparatory schools of medicine and pharmacy made provision for six professors and two associate-professors. Some

England

Society of Apothecaries

Whereas the *officiat* and *doctorat* requisites were of similar nature but distinct scope, the disparities between the requirements of the various English diplomas revealed trainings of both a very different function and comprehensiveness. Before the University of London started to deliver MBs and MDs in 1839, not a single degree awarded to medical and surgical students pretended to cover all aspects of medical science. By tradition, corporations expected specific skills and experience from their prospective members and set their qualifying requirements accordingly. Each degree was designed to distinguish either a physician, a surgeon or an apothecary and was therefore based on a much narrower conception of the medical sphere than the French *doctorat* or even the *officiat*.

In the early nineteenth century, the great majority of English medical men who studied medicine, surgery and pharmacy to enter into general practice could not apply for a single diploma which would recognise their triple instruction. The Pharmaceutical Association and the Association of Apothecaries and Surgeon-Apothecaries endeavoured to create such a diploma but their efforts were hindered by the corporations' lack of support. The College of Physicians remained opposed to any legislative text which would recognise the status of general practitioner, while the College of Surgeons staunchly refused to allow another institution to examine and license in surgery. In 1813, the Association of Apothecaries and Surgeon-Apothecaries suggested that, when examined for a licence, prospective general practitioners should 'produce evidence of apprenticeship, or attendance at an accredited school of medicine, certificates of attendance on two courses of anatomy with dissections, of chemistry, of midwifery and of the theory and practice of medicine.' The scheme devised by the Association of Apothecaries and Surgeon-Apothecaries also required students to attend the medical practice of a London hospital for six

municipalities, like Toulouse, funded additional chairs, such as forensic medicine. The mandatory hospital training was established by the ordinance of 10 April 1842. See Pinet, *Lois, décrets, règlements et circulaires*, 2, 97-8; 128-33.

months or that of a dispensary or provincial infirmary for one year.⁴⁴ However, it acknowledged that general practitioners would not be expected to attend courses in surgery.

Despite being a moderate version of what the Association wished to set up, the 1813 bill offered several innovations. It suggested the establishment of a ‘superintending body to control the practice of apothecaries, surgeon-apothecaries, midwives and compounders of medicine’, constituted by officials from the Colleges of Physicians and Surgeons and the Society of Apothecaries and twenty-four general practitioners. This body would examine and bind by indentures all apprentices and examine candidates for certificates to practise. Furthermore, the bill provided for the creation of a London medical school.⁴⁵ The Bill presented by the Society of Apothecaries in 1815 was a further compromise on the projected medical reform and was restricted to apothecaries. It abandoned most of the advances suggested by the 1813 bill, in particular the distinct examining body and the medical school, concentrating instead on the education and examination of apothecaries. The Apothecaries’ Act, as it was voted, therefore ruled that from 1 August 1815 all men entering into practice as apothecaries throughout England and Wales were required to obtain the Licence of the London Society of Apothecaries. The candidates for the Licence would need to ‘produce testimonials of a sufficient medical education’ to be defined by the Society. To set up these requirements, the Society of Apothecaries took inspiration from those contained in the 1813 bill, but felt compelled to limit their scope to domains specific to apothecaries. The Society reduced the number of courses of chemistry from two to one, dispensed with midwifery and dissections—which were more associated with the surgeon’s skills—and instead insisted on one course of materia medica, the core of the apothecary’s knowledge. It also accepted six months of medical practice whether it had been gained in a hospital, a dispensary or a provincial infirmary.

⁴⁴ By medical practice, it was understood that students were to be registered with a hospital or a dispensary to be allowed to attend the daily rounds of these establishments. ‘Surgical practice’, as required by the College of Surgeons, implied the same for the surgical departments of hospitals.

⁴⁵ Holloway, ‘The Apothecaries’ Act’, 120.

A more long-lasting consequence of the compromise made by the Society of Apothecaries was its insistence on an apprenticeship, which was the traditional path to general practice. Unlike the 1813 bill, the Apothecaries' Act did not leave open the option between an apprenticeship and a medical school education, and required instead a five-year indenture from every candidate to the LSA. This apprenticeship requisite was a fundamental element in shaping general practice as it conserved the trade aspect of an occupation which ambitioned to depart from those origins, and prevented medical students from gaining a more theoretical training. Before the Act, young men who sought to become general practitioners spent five to seven years as apprentices and completed their training with courses before setting up their own shop and practice. Understandably, the Society of Apothecaries could not expect its candidates to possess a long and thorough medical education and thus founded its requirements on the system already existing in the teaching hospitals and private schools of London. However, these requirements, based on apprenticeship and the traditional domain of apothecaries, remained well short of the broad medical education already sought by many students. The archives of the Society of Apothecaries show that in 1815-1816 a great proportion of candidates to the LSA presented more course certificates than the Society's Court of Examiners actually expected.⁴⁶ This supports Susan Lawrence's opinion that the Society's new regulations 'were a codification of pre-1815 patterns of medical education in London, rather than an innovative programme imposed by what was an essentially conservative body'.⁴⁷ It could therefore be said that in the late 1810s the Apothecaries' Act had brought mandatory licensing and provided some uniformity by establishing course requirements. But these requirements did not encompass the whole spectrum of medical knowledge (medicine, surgery, midwifery and pharmacy) and, by presenting a restricted view of the education usually sought by prospective medical practitioners, contributed to a certain extent to lowering standards.

⁴⁶ For example, 49% of the candidates to the LSA in 1815 and 1816 presented more than two course certificates in anatomy, 29% more than two certificates in theory and practice of medicine, 55% more than one certificate in chemistry and 30% more than one certificate in materia medica: Archives of the Society of Apothecaries.

⁴⁷ Lawrence, 'Science and Medicine', 18.

Fortunately, the Society of Apothecaries did not satisfy themselves for long with the modest requisites established in 1815. In the mid-1820s, the Court of Examiners gradually made the requirements more stringent. In 1815, students had to attend the medical practice at a public hospital, infirmary or dispensary for six months at least and follow the prescribed list of courses (two courses of lectures on anatomy and physiology, two on the theory and practice of medicine, and one each on chemistry and materia medica). In September 1826, dispensary attendance was increased from six to nine months.⁴⁸ The following year the Court of Examiners decided that the required course of materia medica would include botany as well. It also warned students that the examination on the practice of medicine would comprise questions on midwifery and the diseases of women and children, and ‘earnestly recommended’ students to attend at least one course on that subject. In September 1828, the Society added two courses of anatomical demonstrations and attendance at lectures on clinical medicine to the requirements. Lectures on midwifery and the diseases of women and children also became mandatory after January 1829 while hospital attendance increased to nine and then twelve months in September 1830 and dispensary attendance to twelve and then fifteen months. From 1831, the Society required two courses of chemistry, materia medica and midwifery instead of one, one separate course of botany and one course of forensic medicine, and recommended one course of morbid anatomy.⁴⁹ In 1841, the number of lectures constituting a single course was also increased from 60 to 100 for each of the main subjects and the examiners demanded proof that students had dissected the whole human body at least once and that they had received instruction in morbid anatomy and organic chemistry.

Economic factors influenced the modest requirements set up by the Society in the 1810s. Standards could not immediately be raised without threatening the recruitment of apothecaries. If training became too complex and expensive, young men from the lower classes would resign

⁴⁸ The time of attendance at a hospital did not change.

⁴⁹ The Society based its requirements for anatomy, physiology and anatomical demonstrations on the those expected by the College of Surgeons (2 courses each). W. Meade, *A Manual for Students who are preparing for Examination at Apothecaries' Hall, or other Medical Institutions* (London, 1839), IX.

themselves to becoming druggists or chemists while those who aspired to reach the top of general practice would make a further financial sacrifice to seek an MD degree in Scotland. Furthermore, if the Society were to direct prospective apothecaries towards a general education by waiving the necessity of an apprenticeship, established practitioners were likely to suffer financially from the disappearance of premiums and a source of cheap labour.

However, as more and more courses were required, apprenticeship became an obstacle to thorough theoretical studies. Furthermore, it was accused of failing to provide enough practical experience. Too much of the apprentices' time was spent tending the shop and compounding medicines and not enough was dedicated to reading and visiting patients with the practitioner. The repetitive and purely manual tasks assigned to the apprentice also had a 'deadening effect on the mind and spirits of a youth at the beginning of his career.'⁵⁰ Furthermore apprenticeship was accused of lowering the status of general practitioners by limiting their education, reducing their intellectual occupation to that of a mere trade and obliging students to remain in a subordinate position in the back-room of a shop for several years.

These criticisms were acknowledged by the Society of Apothecaries. The Select Committee on Medical Education, formed at the House of Commons in 1834 to undertake a review of medical instruction, found few officers of the Society ready to uphold a five-year apprenticeship. John Nussey, Master of the Society, believed that two years were necessary and three sufficient to give a young man the knowledge and experience he needed before beginning theoretical studies. In agreement, John Bacot, Chairman of the Court of Examiners, recommended that young men should not enter into apprenticeship until they were 17 or 18, so that they would possess a solid preliminary education. John Ridout, a member of the Court, even admitted that apprenticeship was not indispensable, although he personally recommended it.⁵¹ A consensus arose on the necessity of a short apprenticeship to provide young men with the knowledge of

⁵⁰ Loudon, *Medical Care*, 178.

⁵¹ *RSCME*, vol. 3, 40.

practical pharmacy and the experience of the general practitioner's work.⁵² Apprenticeship was also justified on financial, social and moral grounds. Since most parents of prospective apothecaries could not afford expensive general studies, an apprenticeship conveniently filled the gap between secondary school instruction and medical studies and enabled the youngster to discover his future profession and learn the tricks of the trade in a protective environment. In the 1834 debates, the Society of Apothecaries used the fact that many masters allowed their apprentices to trade their duty to the shop for the benches of a medical school a year or two before the end of their indenture to minimise the need for change. Instead of modifying the law, it was left to masters and students to decide how they should divide the time between apprenticeship and medical studies.

In the late 1830s and early 1840s, however, the criticism amplified. Reformers who tried to provide collegiate accommodation in the London schools argued that this system would represent a serious alternative to apprenticeship by protecting the morality of young men and providing them with necessary instruction, a view already expressed by John Ridout in 1834.⁵³ The Society was accused of refusing the candidates who had not served a five years' apprenticeship when in fact it was only applying the law as defined by the Apothecaries' Act.⁵⁴ Consequently, in 1840, the Society of Apothecaries' Court of Examiners finally tried to dissociate itself from the Apothecaries' Act. It requested the repeal of the apprenticeship clause and suggested substituting the option of either a diploma or an apprenticeship. But this attempt at reform failed and apprenticeship remained mandatory for prospective apothecaries until the Medical Act of 1858.

⁵² A three-year apprenticeship was also advocated by G. J. Guthrie, President of the College of Surgeons. *Ibid.*, vol. 2, 25.

⁵³ Ridout argued that if medical schools were to become organised as colleges, where young men would be supervised, and if students were allowed to study the classes of diseases not usually seen in hospitals, then the apprenticeship system could be done away with: *Ibid.*, vol. 3, 80.

⁵⁴ C. R. B. Barrett, *The Society of Apothecaries of London* (London, 1905), 220.

College of Surgeons

At the beginning of the nineteenth century the College of Surgeons did not establish strict requirements for the acquisition of its membership (MRCS). It expected six years of professional studies but did not formally require an apprenticeship and demanded only one course of lectures on anatomy and another on surgery.⁵⁵ In 1813, the College revised its requirements and stated that candidates should present a certificate of a year's attendance at the surgical practice of a hospital. After the Apothecaries' Act was passed, the College of Surgeons did not want to appear lenient and therefore increased the number of courses on anatomy and surgery from one to two, in line with the requirements of the Society of Apothecaries. This set the tone for further adjustments in the requirements of the two corporations which became largely complementary. In 1833, in preparation for a bill on medical education, the Society and the College reached an agreement: the Society decided to omit anatomy and physiology from its examination and entrusted these disciplines to the College of Surgeons which in return required that its candidates be educated in pharmacy and the practice of physic.⁵⁶ This division of labour—to the Society of Apothecaries the examination in medicine and pharmacy and to the College of Surgeons that in surgery—was favourable to both corporations. The Society of Apothecaries remained legally responsible for the licensing of general practitioners and obtained from the College of Surgeons that all candidates to the MRCS be required to study pharmacy and medicine, increasing the likelihood that they would seek the LSA as well. The College of Surgeons, meanwhile, remained the only institution to examine in surgery, thereby protecting its domain of expertise.

By 1834, the College expected candidates to present certificates for two courses on anatomy and physiology of no less than 140 lectures and 100 demonstrations, two courses of 60 lectures on surgery delivered in two distinct sessions, one course of six months each on physic, chemistry and midwifery, and one course of three months each on botany and materia medica. Furthermore, the College required students to present a certificate of attendance for twelve

⁵⁵ Z. Cope, *The Royal College of Surgeons of England: a History* (London, 1959), 43.

⁵⁶ RSCME, vol. 2, 71.

months of surgical practice at a recognised hospital in London, Dublin, Edinburgh, Glasgow or Aberdeen, or six months in one of these establishments and twelve in any recognised provincial hospital.⁵⁷ However, despite the strengthening of the course list, Guthrie, President of the College of Surgeons, admitted that the College still accepted four year's service in the shop of a druggist or chemist as part of the required six years of study.⁵⁸ Furthermore, while the College of Surgeons agreed that candidates should present a proof of adequate general instruction, it was not until 1852 that it set up an examination in Greek, Latin and English.⁵⁹ Like the Society of Apothecaries, the College of Surgeons continued to increase its requirements after the 1834 enquiry. By 1841, it expected students to have followed three winter courses on anatomy and physiology by attendance at lectures, demonstrations and dissections. Students were also required to have attended the medical practice at a recognised hospital for one year and the surgical practice for three years.⁶⁰

Universities

Tradition demanded that Oxford and Cambridge students undertake a solid classical education as a foundation for their theoretical medical studies. Before taking the degree of Bachelor in Medicine they needed to obtain a Master of Arts. In the 1830s, the reform movement, which highlighted Oxford's and Cambridge's inadequacies as teaching institutions, and the burgeoning competition of University College, London, were instrumental to pressuring both universities to include practical knowledge in their requirements. The Oxford regulations, revised in December 1833, required certificates confirming attendance at the medical practice and clinical lectures at a hospital 'of repute.'⁶¹ In Cambridge, a similar improvement was initiated, as

⁵⁷ The regulation on the number of lectures was established in 1831: *Ibid.*, vol. 2, 19-20.

⁵⁸ Guthrie claimed to have failed to have that rule changed by the Council: *RSCME*, vol. 2, 52.

⁵⁹ Cope, *The Royal College of Surgeons*, 133

⁶⁰ Three months of vacation were allowed in each year, which explains the equivalence with the nine months of medical practice required by the Society of Apothecaries. This established surgical attendance at 27 months.

⁶¹ A. H. T. Robb-Smith, 'Medical Education', in M. G. Brock and M. C. Curthoys (dir.), *The History of the University of Oxford* (Oxford, 1997), VI, 567.

early as the 1820s, by the Regius Professor of Medicine, John Haviland.⁶² However, as Mark Weatherall has argued, the Cambridge Medical Faculty could not live up to Haviland's ambition to establish a broad elementary medical course, because it was unable to provide even the most basic courses such as anatomical demonstrations.⁶³ Oxford and Cambridge students therefore went to London to complete the long list of disciplines required for the MD.⁶⁴

The University of London, on the contrary, based its requirements on the already successful model of instruction delivered at University College and King's College. When the University was permitted to grant degrees in 1836, it set up its course list in line with the system advocated by University College. MB candidates submitted proof of having attended four courses among a list of fourteen, one course each of practical chemistry and practical pharmacy, and nine months of dissections, before they could present themselves for the first examination.⁶⁵ For the second examination, candidates demonstrated attendance at two more courses on the list, six more months of dissections, twelve months of hospital medical and surgical practice with clinical lectures, and six additional months of practical medicine in a hospital or dispensary. Holders of a London MB could proceed to an MD degree after a further year of clinical or practical medicine or two years in practice (of which they were dispensed if they had obtained a place in First Division at the MB examination) and a final examination.⁶⁶ Although the two medical degrees delivered by the University of London required a solid theoretical and practical instruction and were awarded in accordance to requirements which were more precise than in Oxford or Cambridge, the course list was actually rather restricted. With only ten different

⁶² Weatherall, *Gentlemen, Scientists and Doctors*, 40.

⁶³ *Ibid.*, 56.

⁶⁴ This list included two seasons of courses on anatomy and physiology, practice of physic and pathology, chemistry, botany, medical jurisprudence, materia medica and pharmacy, principles of surgery, principles of midwifery and practical anatomy. For the Cambridge Doctorate in Physic, students were also required to produce certificates of attendance on a hospital medical practice for three years.

⁶⁵ The fourteen courses included descriptive and surgical anatomy; general anatomy and physiology; comparative anatomy; pathological anatomy; chemistry; botany; materia medica and pharmacy; general pathology; general therapeutics; forensic medicine; hygiene; midwifery and diseases peculiar to women and infants; surgery; medicine: *The University College, London, Calendar*, 251.

⁶⁶ This time was later extended to two years of hospital practice or five in private practice, the exemption remaining one year.

mandatory courses, the requirements were even less thorough than those of the combined LSA-MRCS.

The difference between the requirements regulating the various degrees and diplomas can be measured by the number of hours necessary to complete them. In 1821, for example, students could obtain the right to take the qualifying examination after only 1,000 hours in a medical school for the combined LSA-MRCS, compared with approximately 2,200 for the *officiat* and 3,800 for the Paris MD.⁶⁷ These figures, in line with the length of studies, confirm that both French models of education were more ambitious than the regular London instruction, both in terms of the variety of disciplines required and the time dedicated to each subject. However, these statistics do not take into consideration the instruction that London students obtained during their apprenticeship. Furthermore, the requirements introduced by the Apothecaries' Society only regulated the instruction necessary to enter the lowest rank of the profession and did not seek to emulate the thorough instruction established by the Paris medical school.

In the 1820s and 1830s the number of required courses increased progressively as curricula became more complex and thorough. By 1845, Parisian students were expected to study for about 4,400 hours while the LSA-MRCS requirements hovered around 2,100 hours. Surprisingly, the number of hours required from *officiat* candidates (3,100) was not only superior to that of the LSA-MRCS, it was also superior to that of the London University MB (2,700 hours) and almost equalled that of the London MD (3,150).⁶⁸ The answer to this mystery lies in what was understood by requirements. In England, the onus was on the student to define his own instruction. The certificates to be presented before any examination were deemed to be the ultimate minimum. In reality, the medical schools usually provided between 3,000 and 3,500

⁶⁷ The date of 1821 is interesting as a comparative point because the requirements of the Society of Apothecaries and College of Surgeons had had time to mature since the inception of the Apothecaries' Act. In Paris the date of 1821 is ideally placed before the major changes introduced after suspension of the Faculty in 1822-23. The complete liberty allowed to Oxford and Cambridge students at that time makes it impossible to estimate the number of hours they spent attending theoretical and practical courses.

⁶⁸ See Figures 6 and 7, page 275 et seq.

hours of instruction to their students, instead of the 2,100 strictly required for the LSA-MRCS. The same analysis can be applied to the requirements of the University of London. Before selecting their courses, students were aware of the scope of their examinations and therefore took many more courses than what they were strictly expected to by the administration. In France, on the contrary, the liberty of students was limited and requirements matched more adequately what they actually attended.

CURRICULA

The establishment of requirements ensured that medical instruction would cover defined subject areas to a level adequate for the degree sought. However, some courses, to be fully understood, required a previous familiarity with fundamental disciplines. For example, a young man could not pretend to study surgery without any prior knowledge of osteology and anatomy, or to study pharmacy without any training in chemistry. After setting up a simple list of courses, medical schools thus sought to determine the number of hours to be dedicated to each of them, and later also dictated the order in which they were to be taken. Curricula were therefore established to guarantee that students possessed the basis to benefit from the required courses so that they would gradually build their expertise, from the easiest to the most complex subjects.

Curricula were influenced by the same social and professional factors as requirements. In Paris, a detailed three-year curriculum was established at the *École de Santé* as early as 1794, before the creation of examinations and degrees. When the initial examinations were adapted for the *Doctorat* in 1803, the curriculum was revised and transformed into a four-year programme. The four-year course was then subdivided into sixteen terms corresponding to an equivalent number of fees. Each term, students were expected to attend specific courses, and they sometimes had to pass examinations to be allowed to register for the following term. This constraining sixteen-term curriculum was consistent with both the military style that had characterised the Paris *École de Santé* at its foundation, and the government's ambition to

ensure that training was thorough and uniform. The curriculum of the *écoles préparatoires de médecine* was similarly divided into terms and offered courses in an analogous order.

In contrast to Paris, where the curriculum predated qualifying requirements, a formal organisation of study only slowly emerged in London. In the initial years after the Apothecaries' Act, the Society of Apothecaries still expected students to define their own instruction. Prospective surgeon-apothecaries were only required to attend six different courses and lessons, which could easily be fulfilled in the space of one year and there was therefore no real need for a schedule of courses or for a minimum length for medical studies.⁶⁹ For more than ten years after the Apothecaries' Act students were left to organise their studies and remained free to determine the order in which they would take courses.

In 1822, the College of Surgeons decided it would only recognise anatomical lectures delivered during the winter session, effectively increasing the length of studies from one year to a year and a half, as two such courses were required.⁷⁰ In September 1827, the Society of Apothecaries introduced the first chronological element in medical studies by requiring students to attend the lectures on the principles of medicine after the lectures on materia medica, medical botany and chemistry, and medical practice after the first course on medicine. In 1831, for the first time, the Court of Examiners formally insisted on a minimum length of studies of two years.⁷¹ In 1835, this was increased to two and a half years (three winter and two summer sessions).

Therefore, while in France the MD curriculum had been set at four years as early as 1803, and remained stable beyond 1858, the length of studies for the LSA-MRCS only gradually increased in accordance with the requirements for lectures, dissections and clinical practice, until it was formally fixed in 1835. That same year, the Society of Apothecaries also established a specific order in which courses had to be taken and distributed them along the necessary two-

⁶⁹ This corresponds to the total requirements to take the LSA and MRCS examinations.

⁷⁰ See Figure 7, page 279. This increase in the length of studies was the accessory benefit of a policy which sought mainly to protect hospital surgeons from rival anatomy lecturers.

⁷¹ Meade, *A Manual for Students*, IX.

and-a-half years of medical instruction.⁷² However, the traditional freedom of students to establish their own schedule would not be broken so easily. The new curriculum offered some leeway to students by allowing them to take botany and midwifery at various times. By revealing an effort to direct the studies of young men and guide them through the subjects, the 1835 decision nevertheless represents a landmark in the education of English general practitioners in the nineteenth century.⁷³ The College of Surgeons did not feel any urgency to establish its own schedule of courses as, of all the courses it required, only surgery and clinical surgery were not present in the Society of Apothecaries' curriculum. Since the double qualification of surgeon-apothecaries (LSA-MRCS) did not have a legal existence as such, no joint curriculum was published by the two companies. It was left to *The Lancet* to establish the 'Order of attendance on lectures for the observance of those who intend to pass both the Hall and the College' which many students must have actually followed.⁷⁴

The framework set up by the Society of Apothecaries and the College of Surgeons also applied to the students of University College and King's College. Despite these two institutions' great ambitions for medical education, the majority of their students prepared for the LSA-MRCS diplomas and they were therefore obliged to provide teaching according to the regulations set up by the corporations. This did not prevent University College, in 1834, from publishing an ideal four-year curriculum which added several courses, such as comparative anatomy and zoology, to the corporations' requirements and expected students to delve deeper into the main subjects during the fourth year. This curriculum only came into being in 1836 when it formed the basis of the University's MB degree. The London MB curriculum was a compromise between the traditional liberty left to English university students and the high requirements the new university sought to implement. Unlike the somewhat constraining Paris MD, students were free to choose the subject of six out of eleven required courses and, for most

⁷² *The Lancet* (1835-36), i, 11.

⁷³ This curriculum remained essentially unaltered until the Medical Act of 1858.

⁷⁴ *The Lancet* (1837-38), i.

of them, the order in which they wanted to study them.⁷⁵ The London organisation contrasted with the Oxford and Cambridge curricula which did not provide an order of study between various disciplines. However, this defect was supposed to be compensated for by the greater length of studies. In Oxford, 28 terms (or 7 years) of residence were necessary to obtain the MB and a further three for the MD while in Cambridge the Bachelor of Physic required six years of study and the degree of Doctor of Physic an additional five.

The difference between the course structure at the Paris Faculty of Medicine and the London medical schools was very striking before 1835, when only French students had to adhere to a strict course list and follow a prescribed order for a set number of years. Beyond that date, however, the Society of Apothecaries, the University of London and the Paris Faculty all checked students' progression within the prescribed curriculum regularly. In Paris, each term represented a new hurdle in a programme from which students were not allowed to stray. In London, the 1835 Society of Apothecaries's regulations provided the necessary elements to structure surgeon-apothecaries' medical studies while the registration of the season's course tickets ensured that students conformed to that predetermined schedule. Meanwhile, the University of London also set up a curriculum which presented guarantees of control by providing a course list, some order and a minimum time of study.

EXAMINATIONS

Qualifying requirements ensured that each student achieved a predetermined level of competence before being admitted into the profession. Degree-granting institutions used apprenticeships or lengthy practical experience, certificates of attendance at courses, and examinations to ensure that requirements had been fulfilled. Assessments often included only medical theory and rarely sought to encompass all the courses and experience required of candidates.

⁷⁵ *The University College, London, Calendar*, 251-3.

In France, the law of 10 March 1803 reinstated the degrees of *Doctorat en Médecine* and *Doctorat en Chirurgie* and qualifying examinations were then established.⁷⁶ Future doctors were to be tested on ten different subjects in five examinations. The first four were common to both doctorates (anatomy and physiology; pathology and nosology; chemistry, materia medica and pharmacy; hygiene and forensic medicine) while the last one was on clinical medicine or clinical surgery, depending on the diploma prepared.⁷⁷ Students were also expected to compose a thesis and defend it in a *viva voce* examination. In 1829, new subjects were added and examinations were introduced gradually throughout the course of the four-year curriculum to guarantee that students built a solid foundation on which to broaden their knowledge.⁷⁸ From 1835, the examinations included practical as well as oral assessments in anatomy, physiology, and clinical medicine and surgery. Examinations were further strengthened by a decree of 7 September 1846 which reinstated the five qualifying tests at the end of studies and added three intermediary examinations in the summer of the first, second and third years.⁷⁹ Thereafter, students had to undertake a total of eight examinations throughout their studies in addition to the thesis.⁸⁰

By comparison, the level of examinations of *officiers de santé* was low. The qualification tests defined by the 1803 law included only anatomy, the elements of medicine and surgery, and a basic knowledge of pharmacy. The variety of training (apprenticeship, hospital pupilship, school education) prevented the elaboration of a fair but more complex assessment. Examinations by

⁷⁶ Between September 1797 and 1803, the Paris school only awarded ‘certificates of achievement’ because medical degrees had been abolished during the Revolution: Bescond, ‘Genèse et devenir’, vol. 1, 44.

⁷⁷ The first three examinations were taken during the Fall after the 16th term and the two remaining ones during the Spring to allow time for preparation.

⁷⁸ Medical botany, physical sciences, medical chemistry and pharmacology formed the first examination after the 8th term; anatomy and physiology the second (10th term); medical and surgical pathology the third (12th term); hygiene, forensic medicine, materia medica and therapeutics constituted the fourth examination (14th term); and finally the last examination tested the students’ knowledge in clinical medicine, clinical surgery and clinical midwifery (16th term) (Arrêté of 22 October 1825): Pinet, *Lois, décrets, règlements et circulaires*, vol. 1, 321-22.

⁷⁹ Picard, ‘La Réglementation des études médicales’, 20. These intermediary examinations closely followed the curriculum. For the first examination student were tested on physical sciences, chemistry and natural history; the second concerned anatomy and physiology and the third medical and surgical pathology. If a candidate failed the intermediary examination in July he could take it again in November. However, if he was unsuccessful once again he could not obtain his next quarterly matriculation before another year. Students frequently failed one of the five examinations or chose to delay their *inscription* for the following term while preparing for the examinations of the *externat* or the *internat*.

⁸⁰ For more details on examinations, see page 245.

local juries, largely inadequate, were therefore abolished by the decree of 2 August 1854. Faculties and *écoles préparatoires* were then given the responsibility for the instruction and examination of prospective *officiers*. Candidates took two annual and three final tests encompassing eight disciplines; however, this level of qualifying examinations lagged behind those of prospective doctors.⁸¹

In London, prospective surgeon-apothecaries faced the two examinations of the ‘College and Hall’. In 1815, the Society of Apothecaries designed a rather limited qualifying examination for the Licence. It included Latin translations from the *Pharmacopoeia Londinensis* and physicians’ prescriptions as well as oral assessments on the theory and practice of medicine, pharmaceutical chemistry and materia medica. Later, the Society extended the scope of the examination in parallel with the requirements. An examination in physiology and medical botany was added in 1816, and midwifery and the diseases of women and children were included in the examination of the practice of medicine in 1827.⁸² As we have seen above, the Society of Apothecaries and the College of Surgeons redesigned their examinations in 1833 to make them complementary. While the Society concentrated on medicine and pharmacy, the MRCS examinations focused on anatomy, physiology, surgery and surgical pathology.⁸³ For midwifery, however, it was more difficult to assign complete authority either to the College or the Society of Apothecaries. Although this discipline belonged more to the surgeon’s domain than to the apothecary’s, the College of Surgeons did not wish to examine in a branch of practice deemed below that of a pure surgeon. Guthrie explained to the Select Committee on Medical Education that the College’s Council had suggested that all surgeons be evaluated in midwifery by two specialists but found that it held no authority to enforce such an examination. The Society of Apothecaries

⁸¹ Pinet, *Lois, décrets, règlements et circulaires*, vol. 2, 145-49. The government introduced annual tests in the *écoles préparatoires* in 1841 before extending them to faculties in 1846. The eight disciplines were anatomy and basic physiology; medical and surgical pathology, and midwifery; pathology and therapeutics (written examination) and clinical medicine and clinical surgery (practical examination); Picard, ‘La Réglementation des études médicales’, 26.

⁸² J. Burnby, ‘An Examined and Free Apothecary’, in V. Nutton and R. Porter, (eds.), *The History of Medical Education in Britain* (Amsterdam, 1995), 23; Loudon, *Medical Care*, 174.

⁸³ Cope, *The Royal College of Surgeons*, 139-40.

therefore continued to question candidates on midwifery but restricted itself to the purely medical aspects. Apart from this lack of adequate examination in midwifery, prospective surgeon-apothecaries were altogether evaluated from the late 1830s on eleven subjects excluding the Arts examination, which is more than what the two corporations were often credited for.⁸⁴

In 1836, the University of London established the content of its examinations for the degree of Bachelor of Medicine and Doctor of Medicine. Quite inclusive in their scope, they encompassed more disciplines than students were actually required to attend.⁸⁵ They thus distinguished the candidates who were able to fashion their own high-quality education from the courses available. In the 1830s, the examinations of the traditional English universities also improved, to include both oral and written tests covering theoretical and practical questions.⁸⁶ The Royal College of Physicians also held its own examination for the candidates to the Licence and the Extra-Licence. Since these candidates were medical graduates, their level of competence was already established by the course requirements they had fulfilled in the preparation for their degree.⁸⁷ They were nevertheless required to translate various medical texts from Greek and Latin and were examined in Latin on anatomy and physiology, the causes and symptoms of diseases, and on the treatment of diseases.

CONCLUSION

After the first few weeks at school, students adapted to their new environment and acquired the clinical detachment necessary to attend anatomical demonstrations and hospital

⁸⁴ See 'The value of examinations', page 247.

⁸⁵ The first examination covered anatomy and physiology, chemistry, botany, materia medica and pharmacy, included Latin translations from the *Pharmacopoeia* and practical exercises. The second examination encompassed physiology, general pathology, general therapeutics, hygiene, surgery, medicine, midwifery and forensic medicine and included again translations into and from Latin and practical clinical exercises. Finally, the MD examination was divided into an Arts examination (from which Arts graduates were exempt) and a medical examination which included medicine, surgery, midwifery and clinical cases.

⁸⁶ From 1833 the oral and written examinations for the Oxford MD covered anatomy, physiology, materia medica and medical botany, the theory and practice of medicine and medical chemistry. The examination for the Cambridge MB, meanwhile, included chemistry, botany, anatomy and medicine.

⁸⁷ These requirements included attendance on courses of anatomy and physiology, theory and practice of physic, forensic medicine, materia medica and botany and the principles of midwifery and surgery.

rounds with an emotional distance conducive to learning. Dedicated pupils acted upon the advice given by the professors, seeking to study efficiently and remain enthusiastic about their daily work. The numerous disciplines to learn over the next few years, at first confusing, appeared logical once organised into a curriculum, giving students a framework within which they determined their schedule at home and at school. Some pupils, however, did not devote themselves so passionately to their instruction and failed to find an appropriate working method. Discouraged by their present difficulties they numbly attended classes and faltered in their efforts to apply themselves effectively, or momentarily put aside their studies to yield to the attractions of city life, while their more perseverant peers already set out to master their future occupation.

3. DURING MEDICAL STUDIES: LEARNING MEDICINE

One only truly becomes a medical student once he has had the scalpel in hand and has walked the hospitals.¹

Ab!... Many a man would go in for law if he had his time over again, and knew what the study of medicine means.²

¹ Cruveilhier, *Devoirs et Moralité du Médecin*, 17.

² R. T. Wright, *Medical Students of the Period. A few Words in Defence of those much Maligned People, with Digressions on Various Topics of Public Interest Connected with Medical Science* (Edinburgh, 1867), 16.

The structural dissimilarities between French and English medical education necessarily influenced the teaching methods and the content of the instruction dispensed to students. The English system, born out of professional need and regulated by market forces, was bound to pay more attention to professional concerns and daily practice than the French structure, thought out and controlled by the Government, and therefore more likely to promote a scientific and hygienist approach to medicine to improve the nation's health. These influences explain why French students were directed towards anatomical expertise, clinical investigation and morbid anatomy and their English counterparts towards clinical practice, therapeutics and pharmacy.

Despite distinct emphases and regulations, the French and English schools' approach to medical education was roughly similar. First, descriptive disciplines such as anatomy, chemistry, materia medica and botany laid the foundation before students began examining the functioning of the healthy and sick body in physiology, medicine, surgery and pathology. More specialised courses such as pharmacology, forensic medicine and midwifery completed theoretical instruction while practical training was divided into anatomical exercises and clinical instruction.¹ Course work therefore revolved around a ternary cycle of formal lessons in the lecture-theatre, practical anatomy in the dissecting-room, and clinical experience in the wards.

LECTURES

By the nineteenth century, lectures differed greatly, in their content and purpose, from their medieval university origins. In the mid-eighteenth century, the focus of medical education shifted to practical learning. Lectures, whose new role was to provide the theoretical foundation upon which students would build their key practical knowledge of medicine and surgery, became only one channel of instruction among others. During lectures, students were called upon to apply their understanding and memory to the facts and theories which could not be immediately

¹ T. Wakley, 'Account of the London Hospitals and Schools of Medicine', *The Lancet*, (1836-37), i, 5-21; Pinet, *Lois, décrets, règlements et circulaires*.

demonstrated in front of them, but which they would observe directly through hospital cases and post-mortems.

Although student testimonies shed some light on the professors and their peculiarities, few expand upon the actual mode of teaching. In the 1860s, Robert Temple Wright gave a rare description of the atmosphere in which theoretical instruction took place:

The lecture-theatres are all very much alike—large rooms with several tiers of seats, sometimes provided with desks to write at, sometimes not. Sometimes the rows of seats are curved like a horse-shoe, the lecturer standing at the open end... at a table covered with specimens of various kinds, in accordance with the subject of his lecture, and behind him is a screen covered with large, ugly water-colour drawings, called diagrams, to which he continually points with a wand... Below the screen there is the inevitable black-board.²

Students were expected to listen quietly to the lecturer and to take notes. Without a proper desk, they were obliged to write on an uncomfortable retractable board or on their laps. To retain more than the mere substance of the discourse, many used shorthand, penning down only the unfamiliar terms and names in full.³ Once at home, they could rewrite their notes clearly, combining them with what they remembered from the lesson and what was presented in textbooks. Although this exercise required hours of study by candlelight, it accustomed pupils to compose medical essays. It also allowed them to make their own analysis of varying opinions and to organise information which they would reemploy many times thereafter. Professors encouraged this activity as it helped students understand the links between the different subjects and gain a more complete comprehension of medical science. Pupils could better comprehend, for example, why a medicine with particular properties was administered to cure a specific affection, or how physiological knowledge led to the choice of one surgical procedure over another.

Despite Wright's unconvinced attitude, pictorial representations constituted a major advance in the teaching of descriptive subjects, such as anatomy, which required a good spatial understanding of organs and tissues. Large drawings and engravings depicted various scientific

² Wright, *Medical Students of the Period*, 8-9.

³ Notebooks kept in the WLHUM and the BIUM attest to this use of shorthand.

elements, such as the distribution of blood vessels in the body or examples of microscopic organisms, which could otherwise be found only in expensive publications. These pictures also provided a helping hand for those professors who could not draw well with chalk. At the London Hospital, for example, John Adams' vain attempts to illustrate some anatomical point always caused noisy acclamations.⁴ The use of diagrams was greatly encouraged by reformers because it increased the demonstrative and practical character of otherwise mainly theoretical lectures. Professors also brought wax models from the school's museum, which students could examine more closely at the end of the lesson.

Textbooks, which contained a concise exposé of the points developed during courses, helped students follow the daily lessons more easily. Teachers could thus expand upon their ideas and bring examples to the students' attention without necessarily insisting on basic information. They were able to employ a colloquial style which afforded 'scope for much clearer and more minute explanation' than could be expected from a medical treatise.⁵ The use of textbooks was particularly encouraged by John Ridout, a member of the Society of Apothecaries' Court of Examiners, who claimed that it made the lesson more practical. Ridout argued that teachers should recommend a textbook to their pupils and illustrate it by demonstrations, experiments, and facts drawn from their own experience.⁶

However, textbooks could lead to abuses, such as when professors did not give enough general information and instead made constant references to their book, compelling their students to buy it to take full advantage of the lesson. Yet overall, textbooks were a positive addition to lectures, helping pupils prepare for courses and adjust their knowledge to what would be taught in class. Student could select what they needed from the essential written information and the interesting details developed by the teacher. This remedied the fact that, in both London

⁴ '100 Years Ago. A Student's Life in 1857', *London Hospital Gazette*, 60 (1957), 3, 82.

⁵ 'Medical Education: Necessity of Attendance on Lectures', *London Medical and Surgical Journal*, 8 (1836), 348.

⁶ *RSCME*, vol. 3, 42. Alexander Harvey similarly argued that all teaching by lectures should be based on a textbook: A. Harvey, *Four Letters to Sir James Clark, Bart., M.D., F.R.S., Physician in Ordinary to the Queen and to the Prince Consort, on Administrative Reform, in Relation to the Medical Schools and the Examining Boards* (London, 1858), 50.

and Paris, lectures were rarely adapted to the students' level. Some courses, such as surgery and medicine, were to be attended over several seasons. Yet, professors did not provide different lessons for junior and senior students. Lectures were 'delivered alike to those *beginning* and those *finishing* their medical studies' and were consequently often too obscure for the beginner and too simple for the advanced student.⁷ Furthermore, in London, professors were always likely to address a mixed audience of apprentices and university students, with different backgrounds and knowledge. In contrast, Parisian students constituted a more homogeneous body. The *baccalauréat* requirement ensured a minimal level of general education while the absence of apprenticeship implied that most students only possessed a limited knowledge of medicine when matriculating at the Faculty. This should have allowed French professors to match the content of their lessons to the students' level of understanding. Yet, lectures in Paris were often accused of being too theoretical, inducing pupils to attend private courses instead.⁸

The quality of lectures, as seen through the students' eyes, depended greatly on the talent of the teacher and on his efforts to provide instruction corresponding, in content and form, to the expectations of the audience. Pupils were easily annoyed if a professor taught above or below their level of understanding, or got side-tracked. In Paris, for example, Pierre-Adolphe Piorry, professor of medical pathology, provoked perpetual irritation with his obsession for the *plessimètre*, a mediate percussion instrument which—he claimed—helped to diagnose abdominal affections. His constant references to his invention, in addition to being repetitive, were more suited to a clinical than a pathology course. Paul Broca avoided his lessons, claiming that Piorry spent the entire year 'on the use of the *plessimètre* in the diagnosis of spleen affections'.⁹ Although Parisian professors sometimes strayed from the discipline they were supposed to teach and personalised the content of their course, pupils were in little danger of being examined on

⁷ T. Alcock, *An Essay on the Education and Duties of the General Practitioner in Medicine and Surgery* (London, 1823), 38.

⁸ See 'Private teaching and complementary courses', page 157.

⁹ Broca, *Correspondance*, vol. 1, 205.

subjects which had not been taught. Faculty professors devised the final assessments and would not risk implying, during a public examination, that their lessons were deficient. However, diligent students who sought in-depth knowledge of a particular discipline were obliged to resort to complementary lessons.

In England, on the contrary, students, needing assurance that courses would include the subjects examined by the corporations, were cautious as to what the various schools actually offered. At St Bartholomew's Hospital, for example, the course of anatomy and physiology included morbid anatomy while at Guy's Hospital it did not, and Guy's students were obliged to pay for extra lessons.¹⁰ Pupils voiced concerns when professors did not teach the entirety of a discipline. They compared what they were taught with lists of questions regularly asked at the College and Hall, to verify that no area was neglected.

The professor's teaching style also greatly affected student satisfaction. Nineteenth-century audiences expected tone, rhythm, accent and rhetoric. Eloquence made a reputation and favourably distinguished a professor from his colleagues. Observers therefore praised the talented lecturers who presented facts and ideas in an ornate fashion and criticised those who mumbled and stuttered through their notes:

M. Gavarret lacks what seduces the crowd, what makes huge assemblies gather around a Chair, what the masters of that art consider as the first condition of eloquence, what makes an orator: action! ... The absence of accentuation, of verve, of movement throws on his speech some coldness and monotony which are not completely offset by the scientific interest of his teaching. This reproach is the opposite of the one previously addressed to M. Wurtz, proving that the right balance is difficult to strike in the art of speech.¹¹

Teaching methods also attracted disapproval at times. When a professor did not allow his pupils to follow the lesson in a textbook and yet remained too theoretical, he was accused of preventing students from learning. When, on the other hand, he relied too heavily on a textbook, students questioned the necessity of sitting through the lesson when they could read it at home

¹⁰ *The Lancet* (1836-37), ii, 7-15.

¹¹ E. Langlebert, *Guide pratique, scientifique et administratif de l'étudiant en médecine, ou conseil aux élèves sur la direction qu'ils doivent donner à leurs études* (Paris, 1852), 67.

and free up their schedule for more practical courses. Most students humoured a dull professor or resigned themselves to attend an uninteresting course which the curriculum requested. But some teachers irritated their pupils so much that their lessons were boycotted altogether. In 1841, a student at Guy's Hospital complained to *The Lancet* that no lectures in comparative anatomy had been given during the session

in consequence of the appointment of an unpopular lecturer whose introductory course was attended only by two pupils, and whose course, therefore, was not given. Whilst, as regards morbid anatomy, the lectures on which are given by the same professor (Mr King) [they] have seldom or ever exceeded an attendance of 5 or 6, the pupils not wishing to attend a teacher who considers them to be a sort of scum or to waste an hour on a lullaby.¹²

Even matters remote from education, such as politics, influenced the students' view of the professors, irrespective of their abilities. Between 1823 and 1830 many French pupils shunned the lessons of the Parisian teachers imposed by the Legitimist government. Jean-Baptiste Cayol's clinical course, for example, was hardly ever attended by more than a dozen students, including his *externes* and *internes*.¹³

To avoid conflicts, some professors endeavoured to improve their relationship with students. Jacques Lordat, a Montpellier professor, advocated dialogue as a powerful pedagogical tool. He regretted that lecturers did not normally take advantage of the students' input and prevented any interaction during the lessons. He, on the contrary, encouraged his audience to voice their queries and ideas, which made the course more lively without transforming it into a trivial discussion.¹⁴ The use of questions and answers was also a fundamental element in Joseph Carpue's success as anatomy teacher in London.¹⁵ However, dialogue proved effective only in small classes and was used by private teachers more than by established lecturers.

¹² 'Guy's Hospital by a Medical Student', *The Lancet* (1840-41), ii, 285.

¹³ J. Morel de Rubempré, *Biographie des médecins français vivans, et des professeurs des écoles par un de leurs confrères, docteur en médecine* (Paris, 1826).

¹⁴ J. Lordat, *Du Dialogisme oral dans l'enseignement public de la médecine* (Montpellier, 1828).

¹⁵ Cope, 'The Private Medical Schools of London', 96.

Most professors used anecdotes to relieve the tedium of the lesson. Some, however, did not hesitate to employ coarse language and sexual innuendoes which inevitably produced hoots of laughter and guffaws. Shephard Taylor wrote in his journal that the professor of anatomy at King's College, Richard Partridge, had told them a 'very improper story relative to a personal friend of his being obliged to have himself circumcised in a warm climate ere he could lead his beloved to the hymeneal bed'.¹⁶ A few days later Taylor noted again that several of Partridge's stories had been 'decidedly improper'.¹⁷ While part of the audience welcomed the jokes and supported this attitude, some students felt alienated by these demonstrations of vulgarity. The Oxford and Cambridge students, who had received a more refined education than the apprentices, felt particularly offended. Henry Acland wrote that he was 'greatly horrified with... the want of control and authority exercised among us students. The teachers truckle to us, joke; especially the evening lecturer, he will make any allusion or talk any folly to amuse the men.'¹⁸ In his view, a professor was supposed to retain a formal distance with his students and win their interest with his knowledge and eloquence. Robert Christison recalled that even some highly educated physicians could be improper:

I heard an obstetrical lecture by Dr B., who was at this time one of the most popular of the medical lecturers in London. But I was unable to see just grounds for such reputation. The worst character of this lecture was its shocking indecency without any qualifying wit... It was a complete puzzle to me how the same class of young men should tolerate such lecturing and at the same time admire the pure thoughts, sound reasoning, beautiful language and noble delivery of John Abernethy.¹⁹

PRACTICAL ANATOMY

The importance of practical anatomy in the curriculum, unmatched either before or after the early nineteenth century, established it as the symbol of medical education during the period. In the eighteenth century, gradual discoveries in descriptive anatomy led to the expansion of

¹⁶ Taylor, *The Diary of a Medical Student*, 11.

¹⁷ *Ibid.*, 13.

¹⁸ Atlay, *Sir Henry Wentworth Acland*, 82.

¹⁹ R. Christison, *The Life of Sir Robert Christison, Bart.*, 2 vols. (London, 1885-86), vol. 1, 199. John Abernethy was assistant-surgeon (1787-1815) and later surgeon (1815-1827) at Saint Bartholomew's Hospital and an exceptionally popular lecturer.

physiology and surgery, enabling the development of new *modi operandi*. The birth of morbid anatomy, which united the exploratory skill of the surgeon with the pathological expertise of the physician, reinforced the necessity of a solid background in anatomy for both medical and surgical pupils. In the early nineteenth century, when practical knowledge and experience prevailed over theories and ‘systems’, anatomy constituted the basis on which students forged their understanding of medicine and surgery.

Dissections and operations on cadavers took place in specially designed buildings or rooms, where corpses were laid on tables. The dissecting-room at University College London was typical in its layout and equipment:

On each side of the room were five tables with a walking way up the centre to the fireplace, which was at the farthest end from the entrance. Upon each table was a body in various stages of dissection, covered by a coarse sheet when not being used; the floor was covered with thick sawdust and wooden stools were placed about the several tables.²⁰

Even for students who had attained an adequate level of clinical detachment, these rooms constituted a dreadful workplace. In addition to the awful smells and the daunting sight of bodies, dissecting-rooms were kept cold to ensure the conservation of corpses. Only a little fireplace—sometimes placed in the middle but more often at one end of the room—was allowed for the relative comfort of students. The layer of sawdust strewn across the floor to absorb the escaping bodily fluids muffled voices and instrument noises, creating an eerie atmosphere. Furthermore, although dissecting-rooms were usually lit by large windows or sky-lights, students only worked there during the dark hours of winter. At University College, for example, the dissecting-room was situated on the northern side of the basement floors and was therefore particularly dark during the anatomical season.²¹ Dissecting-rooms also presented a dangerous environment where students worked in close proximity to contagious diseases and deadly infections.

²⁰ Bellot, *University College London*, 294-5.

²¹ *Ibid.*, 294-5.

Practical anatomy encompassed four types of training which gradually taught students the exploration and manipulation of bodies: demonstrations, dissections, post-mortems and surgical operations on corpses. During simple demonstrations, the lecturer performed a necropsy, indicating every organ to students and calling their attention to the gestures used to remove or isolate specific parts. In addition to providing descriptive knowledge, these lessons presented technical procedure, yet they left students in the position of mere spectators.

Dissections, however, where students were allowed to open corpses and study their structure and various elements, offered a more intense practical experience. Scarcity and rapid decomposition meant that, to provide the greatest instruction possible in a short amount of time, bodies had to be shared. Pupils were normally divided into groups of five or six students of varying levels so that newcomers would benefit from the knowledge and technical expertise of their seniors. As a group, they purchased a corpse and worked on it simultaneously or in turn. At first, novices watched and read from an anatomical treatise while their colleagues each attacked limbs. After a few days or weeks they too donned the traditional protective overcoat and ventured into the exploration of the body. After simple enquiries to understand general physiological structures, they undertook more detailed dissections to study specific organs. Later, they concentrated on structures difficult to isolate, such as the muscles or the nervous and circulatory systems. Finally, as senior students, they became group leaders and kept for themselves the most challenging organs. Their thorough anatomical knowledge and solid understanding of medicine and surgery enabled them to embark on pathological investigations where they endeavoured to reconcile the lesions discovered with the clinical data accompanying the body.²²

Dissections were a painstaking exercise and sometimes the careful extraction of an organ required several hours' work. Often, students did not have enough time to complete their task

²² The regulations of the Clamart dissecting-rooms in Paris, for example, acknowledged the right of advanced students to claim a bigger share of corpses by stipulating that *internes* form groups of three while the younger *externes* constituted groups of four: Corlieu, *Centenaire de la Faculté de Médecine*, 138-39.

before leaving for the next class. Having paid for the body, they were allowed to reserve their part for the following day. They attached a label to it to prevent thefts or wrongful attributions.²³ In Paris, however, some students preferred not to wait until the dissection was finished. They feared that the demonstrator, who was entitled to take any body part for his own studies after compensating its owner, would be interested by their piece. If they discovered a particularly remarkable normal or pathological structure they sometimes took the specimen home to study it away from prying eyes, with a view to preserving it. Such specimens were frequently found in medical students' lodgings in the Latin Quarter, some of them only partially dissected. Landlords perpetually raised their concerns about smells and the risks to other tenants' health, and threatened eviction—often to no avail.²⁴

Experienced students could move on to the third stage of practical anatomy and be entrusted with such a precious commodity as an entire corpse, albeit under the supervision of a hospital officer. *Internes* and dressers, for example, could be requested by a professor to perform an autopsy to confirm a pathological condition diagnosed during the patient's life. Each body part believed to be involved in the affection was explored and described in detail and key organs like the brain, heart, lungs and stomach, although not necessarily touched by the disease, were also routinely examined.

Finally, practical anatomy provided training for operative surgery. During the summer, when dissections stopped, dissecting-rooms were used for surgical exercises. A demonstrator presented on a corpse the technical movements used in procedures such as resection, amputation and tumour extraction. Students first repeated these gestures on mannequins and

²³ Shephard Taylor recalled in his diary that he once forgot to attach a card to his part and nearly lost it, 'an unscrupulous individual having temporarily appropriated it': Taylor, *The Diary of a Medical Student*, 23.

²⁴ In 1839, John Wiblin noted that in the early nineteenth century, *internes* often had half a subject at their lodgings, but that after the construction of the Clamart dissecting-rooms in 1830 students were subjected to stricter rules. Anyone found with a part at his residence was liable to be fined and imprisoned for two months unless he had obtained permission to remove it: J. Wiblin, *The Students' Guide to the Hospitals and Medical Institutions of Paris. To which is Added an Outline of the Edinburgh & German Universities* (London, 1839), 18. In his novel *St Bernard's*, Edward Berdoe claims that some ardent English students also finished their dissections at their own lodgings, despite the provisions of the Anatomy Act preventing transport of body parts: E. Berdoe, *St Bernard's. The Romance of a Medical Student* (London, 1887), 19.

afterwards performed them on dead bodies. Only then could they truly appreciate the skill of the surgeons whom they witnessed applying these methods in operating theatres.

Medical students rarely complained about the many drawbacks related to practical anatomy, probably for fear of displaying feelings which might be interpreted as weakness of character. Besides, the smells and cold temperature were inherent in dissections, and only long and ambitious building works could improve dampness and darkness. However, students did not hesitate to protest against external factors which influenced their anatomical studies, such as the availability and price of corpses. Fluctuating numbers of corpses, a constant source of irritation for students, prevented them from knowing whether or not they would be able to dissect, until they arrived at the dissecting-room. In London, chronic body shortages and high prices forced students to constitute groups to purchase corpses. When a cadaver was delivered to the dissecting-room, they gathered the necessary sum quickly and agreed on the distribution of parts before they lost it to another group. In *The Pickwick Papers* Benjamin Allen discussed his difficulties in securing a body with his friend Bob Sawyer: 'I've put my name down for an arm at our place; we're clubbing for a subject, and the list is nearly full; only we can't get hold of any fellow that wants a head. I wish you'd take it.' Sawyer declined, arguing that he could not afford 'expensive luxuries'.²⁵ In Paris, where hospitals delivered a regular supply of bodies, prices were more stable, but shortages also occurred. Jean-Victor Audouin's diary reveals that, in 1817, he was unable to dissect at the *École pratique* on several occasions.²⁶

In addition to material conditions, over which students had little or no control, human factors, such as the level of supervision in the dissecting-room and the behaviour of fellow pupils, had a direct influence on the quality of anatomical studies. In London, demonstrators rarely oversaw more than ten tables and were able to offer individualised guidance. Supervisors

²⁵ Dickens, *The Pickwick Papers*, 494.

²⁶ J. Théodoridès, 'Jean Victor Audouin. Journal d'un étudiant en médecine et en sciences à Paris sous la Restauration, 1817-1818', *Histoire de la médecine*, 9 (1959), 48.

were also more experienced in London, where the position was entrusted to qualified surgeons, than in Paris, where the *prosecteur* and his assistants had not yet graduated and divided their time between conflicting duties. Even when they were present, the French demonstrators had to supervise at least twenty dissecting tables and so could do little more besides going around and giving impromptu advice. Although French reformers acknowledged this lack of assistance and direction, students rarely complained, because they had the choice between dissecting unsupervised or enrolling for a session with the prosector. Nevertheless, the organisation of French dissections incited John Wiblin, who had studied in Paris, to assert the superiority of London anatomical teaching:

[In Paris] a demonstrator is never to be found in the dissecting rooms, and should a student feel himself occasionally at a loss to make out the more intricate parts of a dissection, he will have no one to apply to for assistance; and he will then perhaps perceive how much better this department of his studies are arranged and directed in his own country. A pupil who has not dissected in England will find it a matter of no ordinary difficulty to make much progress in the French capital unless he places himself under the tuition of one of the *prosecteurs*.²⁷

Lack of supervision allowed in part for unruly behaviour in the dissecting-rooms. Students made crude remarks and sexual innuendoes about the bodies and demonstrated a general disrespect for the dead by playing with body parts. Henry Vandyke Carter was shocked by the ‘disgusting’ conversations exchanged over dead bodies by French and American students at the Clamart dissecting-room in 1852.²⁸ Across the Channel at King’s College, London, as late as 1861, medical students were collectively addressed by the principal after ‘horrible indecencies’ occurred in the dissecting-room. Shephard Taylor, who recorded the fact in his diary, was amazed that the perpetrators had escaped punishment.²⁹ Paul Broca, a prosector at the *École pratique* for three years, never mentioned such behaviour in his correspondence, but this would probably not have been appropriate in letters to his parents. He only went so far as to write that pupils would test and dare each other to leave for lunch without washing their hands.³⁰

²⁷ Wiblin, *The Students’ Guide*, 62.

²⁸ London, WLHUM, MS 5817 (Manuscripts of Henry Vandyke Carter, 6 Nov. 1852).

²⁹ Taylor, *The Diary of a Medical Student*, 75.

³⁰ Broca, *Correspondance*, vol. 1, 41.

The obstacles which prevented anatomical instruction from spreading as quickly and easily in London as it did in Paris during the eighteenth century still exerted an influence well into the nineteenth century. Practical anatomy was much more readily accessible to the Parisian students than to their London counterparts. This fact was highlighted by the great number of English pupils who travelled to the French capital to take advantage of the abundant opportunities for inexpensive dissections.³¹

In 1794, when the Fourcroy Commission devised the instruction delivered by the *écoles de santé*, it insisted that anatomical demonstrations were insufficient and that all students should perform firsthand dissections in ‘the Paris manner’ as soon as the first winter session.³² To provide this instruction, the Paris *École de Santé* revived the *École pratique de Dissection* when it took over the buildings of the former College of Surgery. In September 1798, the Government also passed a law to ensure that hospitals supplied a regular stream of corpses to the *École pratique*.³³ The unclaimed bodies of patients deceased in the Parisian hospitals fell into the hands of the *internes* who, in conjunction with the surgeons and physicians, decided if a post-mortem was necessary. Otherwise, corpses were sent directly to the dissecting-halls. Despite this measure, the Paris *École de Santé* still experienced difficulties procuring bodies during the first decades of the nineteenth century. Some students therefore sought the more individualised instruction available in the several private anatomical theatres where teachers resorted to grave-robbers when corpses from hospitals were unavailable.

In 1813, the Government closed all private anatomy theatres for sanitary reasons and prohibited dissections in the hospitals. Yet surgeons and physicians working in hospitals located far from the *École pratique* were gradually authorized to perform autopsies on the premises so that pathological research could be undertaken immediately following the patient’s death. The large dissecting-room at the Pitié hospital was also left open to complement the *École pratique*’s

³¹ See ‘Studying abroad’, page 237.

³² See Gelfand, ‘The “Paris Manner” of Dissection’, 99-130.

³³ Ordinance of September 1798. Maulitz, *Morbid Appearances*, 37. The centralised hospital system facilitated the smooth running of this system.

facilities.³⁴ By the early 1830s, the *École pratique* and the Pitié dissecting-rooms could not meet the needs of the growing student population and the General Council of the Paris Hospitals decided on 2 June 1830 to found its own anatomical complex, the Amphithéâtre des Hôpitaux. On 1st November 1833, a new building comprising four dissecting-rooms opened on the grounds of the former Clamart cemetery, about twenty minutes' walk from the Faculty of Medicine.³⁵ Once again, the Government prohibited dissections and operations on corpses in the hospitals, restricting them to the *École pratique* and Clamart pavilions.³⁶

The material conditions in which practical anatomy was performed were greatly improved with the construction of the Clamart dissecting-rooms. Although reserved for students holding junior hospital position (*externes* and *internes*), they successfully relieved the crowded *École pratique* and enabled advanced pupils and professors to perform their research in an improved environment. From 1833, 176 dissecting-tables were available in Paris (80 at the *École pratique* and 96 at Clamart) enabling between 700 and 800 students to dissect at any one time. Since dissection courses were required only during the first three winter sessions, these facilities fulfilled the needs of all students.³⁷

Most Parisian students purchased their subjects from the *École pratique*, at the reasonable cost of 20 Francs per season in the 1820s, or 60 Francs for the complete curriculum.³⁸ Some students, however, were able to dissect for free by becoming pupils at the *École pratique*. Every year forty first-year students were admitted at the *École pratique*'s competitive examination and were rewarded with a free supply of bodies over three years.³⁹

³⁴ La Pitié's dissecting-room received numerous bodies of deceased patients from the nearby huge Salpêtrière hospice, where psychiatric patients were often abandoned by their families.

³⁵ Corlieu, *Centenaire de la Faculté de Médecine*, 137.

³⁶ Ordinance of 25 November 1834: Meding, *Manuel du Paris médical; recueil des renseignements historiques, statistiques, administratifs et scientifiques sur les hôpitaux et hospices civils et militaires* (Paris, 1853), 322.

³⁷ Corlieu, *Centenaire de la Faculté de Médecine*, 135.

³⁸ This estimate corresponds to the price of two fresh bodies (20 F) divided between five students for every month of the anatomical session (November-March).

³⁹ The *École pratique* was *de facto* a practical school with hundreds of students and no teaching staff apart from the demonstrators. It ran its own examinations and awarded prizes, judged by the Faculty professors and constituted in effect an elite school within the medical school. Pupils of the *École pratique* had the further advantage over ordinary Faculty students of having first choice among the bodies that were brought to the dissecting-rooms.

The English professors were as aware as the French of the fundamental role anatomy played in the medical curriculum. However, under English law dissections were restricted to the bodies of convicted criminals, a source which could never fulfil the needs of the entire student population. These legal constraints explained why the Society of Apothecaries could not include dissections in their requirements, as John Watson, Secretary of the Society's Court of Examiners, told the 1828 Select Committee on the Schools of Anatomy.⁴⁰

Dissections were nevertheless performed both in hospitals and private anatomy schools. Anatomical teachers sought the services of grave-robbers and 'resurrection-men', who clandestinely unearthed freshly buried corpses in cemeteries. Engaged in a lucrative occupation, these men did not hesitate to employ whatever means necessary to get corpses, from robbery to murder. Therefore, while the teaching of anatomy was recognised as indispensable, corpses were provided by a notorious criminal trade, whose interest it was to keep availability low and prices high.⁴¹

Private schools, such as the Great Windmill Street school, Joshua Brookes's school in Great Marlborough Street, and Joseph Carpue's school on Dean Street, were less reluctant than hospital surgeons to establish relationships with body-snatchers. In the early 1820s, these schools provided the majority of opportunities for dissections and anatomical demonstrations and were well attended, due in part to their vast collections of specimens and also to their teaching methods which emphasised individual supervision.⁴²

The 1832 Anatomy Act amended the law regulating the provision of corpses to the anatomy teachers, allowing some of the unclaimed bodies of patients deceased in the hospitals to be used for dissection. Although the number of bodies available for anatomical studies increased, it remained significantly lower than in France. The social status of patients was also slightly

⁴⁰ [England. Parliament. House of Commons], *Report of the Select Committee on the Matter of obtaining subjects for Dissection in the Schools of Anatomy* (London, 1828), No. 568, vol. 7, 87.

⁴¹ *Ibid.*, 8-9.

⁴² Carpue also examined students once every ten days: 'Medical and Physical Intelligence', *London Medical Repository* (1818), 345.

higher in the British voluntary hospitals than in the large Parisian hospitals such as the Hôtel-Dieu and La Salpêtrière, and fewer bodies remained unclaimed. Popular hostility to dissections, brought on by years of fear of the grave-robbers, also remained comparatively strong.

Despite changes brought about by the Anatomy Act, it is thus doubtful that the teaching of anatomy dramatically improved from the students' point of view. By the early 1830s, Brooke's, Carpue's and the Great Windmill Street schools had disappeared or were in disarray, weakened by the restriction of anatomical instruction to winter sessions by the College of Surgeons. Although the hospitals, reassured by the newly-established legality of dissections, offered more anatomical courses than in the past, governors were concerned that patients would feel threatened by the expansion of anatomical departments. Whereas in the early 1820s, Carpue's school was open from 7 to 5 every day of the week, allowing a great number of students to dissect when it suited them, hospital dissecting-rooms were rarely open more than five hours a day.⁴³ The price of bodies remained high and the number of dissecting-tables far inferior to that of Paris. At University College, for example, the dissecting-room contained only ten tables, allowing approximately fifty students—only a third of those who took the course—to dissect at one time.⁴⁴ Considering their tight schedule it seems unlikely that all students could dissect every day. In the 1860s, the number of students willing to dissect was so much in excess of the bodies that eight of them worked on a single body simultaneously. Under these conditions, very few dissected 'more than four parts in each winter, for you [had] often to wait some weeks before your turn [came] for the "next leg"'.⁴⁵

Newman mentioned that after the passing of the Anatomy Act in 1832, the 'supply of bodies to the London medical schools rose from 300 to 600 in a year'.⁴⁶ Given the number of medical students in the British capital at the time, a London pupil could therefore only expect to

⁴³ Ibid.

⁴⁴ Dissections were only required for two winters out of three. By discounting the medical students who were already advanced in their studies, it is possible to estimate that only about half of the 300-400 medical students matriculated at UCL during the 1830s and 1840s were required to dissect during one session.

⁴⁵ Wright, *Medical Students of the Period*, 19-20.

⁴⁶ Newman, *The Evolution of Medical Education*, 41.

dissect one to three bodies during his studies, well under the numbers put forward by anatomy teachers before the 1828 Select Committee.⁴⁷ This compared poorly with the number of bodies available in Paris to a comparable student population. In his account of the Paris hospitals, Wiblin estimates that 5,000 corpses were dissected at Clamart and the *École pratique* every year towards the end of the 1830s. In 1853, when the number of students had declined from its peak in the 1830s, Henry Meding gave a figure of between 2,500 and 3,000 corpses. At that time, around 900 students were required to dissect during the winter. A Parisian student would therefore dissect on average the equivalent of eight to ten bodies over the span of his medical studies.⁴⁸

The differences in the availability and price of corpses explain why anatomical studies were organised differently in London than in Paris. Proportionately, the Paris Faculty required fewer hours of theoretical anatomy and physiology courses than did the London corporations.⁴⁹ Instead, it placed the emphasis on firsthand dissections, whereas London pupils gained much of their knowledge through the intermediary of the demonstrator.

Dissecting techniques differed significantly between the two capitals and post-mortems were performed in a much more detailed and precise manner in England than in France. In Paris, the regular availability and low prices of corpses allowed for carelessness. Groups of dissectors included novices who, when left to their own devices, butchered rather than dissected:

In Paris the students commence by studying the bones; they then dissect in rotation the ligaments, muscles, arteries, veins, nerves, viscera, etc., and finally they dissect the body again and again in order to acquire a thorough knowledge of the relative position of parts; hence it will be perceived the large number of bodies a student requires when he dissects according to the admirable system adopted by the French. When dissecting the ligaments and muscles, they sacrifice arteries, veins, nerves, etc. to obtain a correct and accurate display of the parts under consideration—a system in itself exceedingly well calculated to afford every facility in the acquirement of anatomical knowledge, but which

⁴⁷ Cesar Hawkins suggested two corpses per student each season, and William Lawrence three or four. The reporters themselves indicated that students ought to be supplied with not less than three bodies each every winter: *Report of the Select Committee on the Schools of Anatomy*, 33, 40, 4.

⁴⁸ Individual students were not given a whole body at once, but dissected part of a body with colleagues. Parts were preserved for several weeks, allowing for many different levels of dissection.

⁴⁹ See Figure 6, page 275.

in a measure accounts for the miserably bad dissections we witness from the French students.⁵⁰

By contrast, the paucity of corpses obliged London students to take special care on the rare occasions when they had a subject in front of them. A beginner would not be allowed to dissect by himself for fear that his part would be wasted. Even after the Anatomy Act, the traditional method of minute dissections, which had prevailed since the eighteenth century, persisted, and there were no attempts to dissect bodies on a scale comparable to Paris.

To bring more structure to the dissections and remedy the waste of corpses, Alphonse Sanson, a private teacher at the Paris *École pratique*, advocated a system where approximately twenty students would dissect together under close supervision, but this would have required new buildings and the idea was abandoned.⁵¹ In the late 1840s the Faculty decided to improve dissections and students were given the choice of either dissecting by themselves (for which they paid per body as before) or under the supervision of an anatomy assistant for 30 Francs per session. Most students, logically, chose the unsupervised and less expensive option.

CLINICAL TRAINING

Rounds and lessons

After theoretical lectures and practical anatomy, clinical training constituted the third component of medical and surgical instruction. The early nineteenth century, the era of dissection *par excellence*, was also the main period of development for clinical investigation. While anatomical studies formed the basis of the practitioners' knowledge of the body, clinical experience introduced students to what would become their daily work, the treatment of patients. In the first half of the nineteenth century, clinical teaching had become so important in medical training that, for many students and professors, attendance at hospital practice took precedence over theoretical lectures and practical anatomy. Even an accomplished anatomist like

⁵⁰ Wiblin, *The Students' Guide*, 64. Henry Vandyke Carter agreed that, in Paris, dissections were half performed and never finished: Manuscripts of H.V. Carter, MS 5817, 4 Nov. 1852.

⁵¹ L. J. F. Delasiauve, *De l'Organisation médicale en France, sous le triple rapport de la pratique, des établissements de bienfaisance et de l'enseignement* (Paris, 1843), 174.

Thomas Hodgkin agreed that clinical medical instruction was 'justly regarded as forming the most important part of the medical course'.⁵² For the physician Robert Graves, clinical teaching was a source of both theoretical and practical experience in semiology, pathology and therapeutics:

You come [to the wards] to convert theoretical into practical knowledge; to observe the symptoms of diseases previously known to you only through the medium of books or lectures; to learn the art of recognising these symptoms and of appreciating their relative importance and value; to study their connexion with morbid alterations of internal organs; and finally to become acquainted with the best method of relieving your patients by the application of appropriate remedies.⁵³

Similarly, in clinical surgery, pupils observed patients' ailments and studied the treatments administered. Clinical training not only provided them with further practical experience, it also allowed them to get close to patients and see first-hand how reputed physicians and surgeons interacted with them in the wards.

Registered pupils received entry cards to go into the hospital for rounds but were not generally allowed to wander the wards unsupervised. They gathered in the entrance until the surgeon or the physician arrived, accompanied by his *interne*, dresser or clerk. They then followed him from patient to patient, taking quick notes as he described the symptoms, gave a diagnosis, prescribed a treatment and voiced a prognosis.

Not all professors struck the same balance between the need to provide adequate instruction and the necessity to respect the repose of patients; thus the amount of information they offered during rounds varied. In London, hospital governors made it clear that the practitioners' first duty was to the suffering patients and not to the students, who were only granted the privilege to attend the rounds. To avoid undue disturbance, teaching was restricted to a special ward where cases selected for their clinical interest were treated. At Guy's Hospital, for example, the clinical ward contained 24 beds in 1818. According to the surgeon Alexander

⁵² Hodgkin, *An Essay on Medical Education*, 10.

⁵³ R. Graves, 'On Clinical Instruction with a Comparative Estimate of the Mode in which it is Conducted in the British and Continental Schools', *London Medical Gazette*, 10 (1832), 401.

Marcet, this number, albeit small, was quite sufficient as it hardly allowed the practitioner to follow all cases with clinical minuteness.⁵⁴

In Paris, clinicians enjoyed greater liberty to organise instruction as they liked. The 1794 law creating the *écoles de santé* firmly established the Faculty professors' duty to instruct students at the bedside. The Faculty's clinical instruction was delivered at the Charité and Hôtel-Dieu hospitals, and private clinical instruction was offered in nearly all the other establishments. Unlike most London institutions, Parisian hospitals did not require recommendations and admitted almost all the sick people who applied to the Bureau central.⁵⁵ Open admissions meant, however, that patients' rights were limited. It was tacitly understood that by receiving treatment at a teaching hospital, their conditions were potentially an object of study. Overall, there was little internal and external pressure to sacrifice clinical instruction in favour of the well-being of patients. During the round, all patients could be requested by physicians and surgeons to offer themselves for the teaching of students. Since the Parisian hospitals were more populated than the London establishments, the clinical teachers naturally saw a much greater number of cases during the round, which consequently took longer.⁵⁶

Like in London, some Parisian professors, such as Guillaume Dupuytren and P. J. Roux, went round in a quiet way, interrogating patients no more than necessary. However, this withdrawn teaching style more or less left students to guess what they were supposed to observe. A few teachers, such as the physician Léon Rostan, consciously placed the emphasis on

⁵⁴ A. Marcet, *Some Remarks on Clinical Lectures being the Substance of an Introductory Lecture Delivered at Guy's Hospital on the 27th of January 1818* (London, 1818), 15. Like Marcet, Sir James Clark believed that it was better to have small clinical wards: J. Clark, *Medical Notes on Climate, Diseases, Hospitals and Medical Schools in France, Italy and Switzerland* (London, 1820), 130; 171.

⁵⁵ At this central office of the Parisian hospitals, located at the Hôtel-Dieu, surgeons and physicians saw patients for an initial diagnosis and directed them to the most appropriate hospital.

⁵⁶ In the early 1830s, for example, the physician Récamier was in charge of 80 patients at the Hôtel-Dieu while the surgeon Dupuytren headed an immense service of 266 beds: Wiriot, *L'Enseignement clinique*, 91. The medical journalist Félix Ratier, like some other French observers, disagreed with this system and recommended no more than 24 to 30 beds in the clinical wards: F. S. Ratier, 'Coup d'œil sur les cliniques médicales de la Faculté de médecine et des hôpitaux civils de Paris', *Archives générales de médecine* 14 (1827), 185. The great number of students under the care of each physician even encouraged the Charité physicians Corvisart and Leroux des Tillets to experiment temporarily with the German model of clinical training (where patients were distributed amongst students) in 1795-1815 through the Société d'Instruction médicale: T. D*****, *Conduite des professeurs de la Faculté de médecine ou réfutation du mémoire ayant pour titre: Observations présentées au Roi sur la Faculté de médecine* (Paris, 1815), 7-8.

instruction, taking the time to examine and describe symptoms, and interrogating patients at length. Rostan even let students conduct their own auscultations.⁵⁷ Furthermore, whereas most professors did not allow interruptions during the round, preferring to reserve their comments for the clinical lesson, Rostan was happy to answer any questions.

Following the round, professor and students gathered in a nearby amphitheatre for the clinical lesson. The teacher usually summarised the cases encountered in the wards, insisting on a few salient ones and giving information that would have been improper to mention in front of patients. Sometimes, one of the cases provided the starting point of a more theoretical lesson dedicated to a specific aspect of clinical science.

The main advantage of walking the wards was the opportunity to follow cases from the patient's admission until his or her discharge or death. Professors invariably stressed the importance of this follow-up and advised students to take meaningful notes at the bedside and to build case-histories with all the information they could gather:

Make the knowledge your own by your own labours. Observe for yourselves the phenomena of disease... Take your own written notes of cases... for copying those taken by others, as far as the improvement of your mind goes, is nearly useless; and when you have taken notes in the morning, write them out in the evening, and think of them, and compare them with one another, and converse of them with your fellow students, and all this will render the investigation of disease a comparatively easy matter afterwards.⁵⁸

John Edward Morgan, a Manchester professor, insisted that a student should only use another's work in comparison with his own, as there was as much to learn in the very process of gathering, organising and analysing information and drawing conclusions, as in the information itself.⁵⁹

Professors also encouraged students to go beyond the individual observations and to analyse and compare the different cases, extracting from specific situations the knowledge that

⁵⁷ Léonard, *Les Médecins de l'Onest*, vol. 3, 628-9.

⁵⁸ Brodie, *An Introductory Discourse*, 16-17.

⁵⁹ J. E. Morgan, *Opening Address Delivered at the Manchester Royal School of Medicine, Monday October 2nd, 1865* (Manchester, 1865), 9. In Paris, Armand Trousseau told students: 'observe many cases, observe by yourselves because one needs personal notions to understand those that others have acquired': Trousseau, *Discours prononcé par M. le Professeur Trousseau*, 11.

would be useful in more general circumstances. To build their knowledge of cases, students needed to study patients extensively. Regular attendance in the wards enabled them to catch details they had previously missed. By lagging behind the group they could have a closer look at each patient. In the daily study of clinical cases, Parisian students held an advantage over their London counterparts: physicians and surgeons—or their *interne*—made a second round in the evening, which pupils were allowed to attend. Although clinicians were not required to offer any instruction at that time, they would sometimes allow the few dedicated students present to undertake their own examinations.

Clinical instruction also permitted students to observe the various therapies employed by hospital physicians, from pills, potions and balms to cold baths and electric stimulation. The treatment of surgical cases introduced them to bandages and apparatus. However, above all, students preferred to witness the use of more interventionist measures, such as operations, which required great skill from the surgeon and presented many dangers to the patient. Non-urgent operations were usually scheduled so as not to conflict with the students' other occupations.⁶⁰ When an emergency occurred, the news travelled quickly through the school and the available students ran to the theatre. The surviving operating theatre of St Thomas' hospital in London helps historians recreate the atmosphere in which these operations took place before the advent of anaesthesia.⁶¹ The patient was strapped to the table, conscious but nevertheless at the mercy of the surgeon and his assistants. Students bent over the railings to catch the best view. Ideally, the operation would not last more than a few minutes so it was necessary to keep a close eye on the operator's movements. Fast and skilful surgeons, such as Dupuytren at the Paris Hôtel-Dieu, or Astley Cooper at St Thomas's Hospital, widely celebrated for their *tour de main*, were often cheered by students after they successfully completed an operation.

⁶⁰ At St Bartholomew's Hospital, for example, they were held on Saturdays at 1 p.m. in 1836: *The Lancet* (1836-37), i, 9.

⁶¹ See Illustration 12, page 292.

Students voiced more complaints about unsatisfactory clinical exercises than inadequate theoretical courses, which unlike practical experience, could easily be replaced by book study or the lessons of another professor. From a student's point of view the structure of clinical studies left much to be desired. The most frequent complaint concerned attendance at rounds, where too many pupils were admitted at once. In order to get a glimpse of the sick, students needed to arrive early, jostle to get a good place and then shove and push to hang onto the coat-tail and every word of the professor. Otherwise they were left to follow the lesson from afar or post themselves close to the next patient's bed to await the professor.⁶² Teachers who spoke quietly out of respect for patients and those who mumbled made the work of students even more difficult. John Wiblin, for example, wrote that Roux's clinical round at the Hôtel-Dieu would have been the most useful of any delivered in the Parisian hospitals, were it not for the inaudible tone in which he spoke and for his habit of biting his finger-nails and looking down at the ground instead of facing the audience.⁶³

During rounds, students expected to be given a full explanation of the disease and its treatment. However, professors tended to insist on what they perceived as most important and to pass quickly over the rest without detailing how they came to the diagnosis and therapy. Moreover, they were inclined to focus on certain cases, which did not always allow pupils to complete their notes on the patients they had seen during previous visits.

Students relied on clinical lessons to gain the information they were unable to obtain during the rounds. Although professors were supposed to shed light on the cases that students had only a glimpse of in the wards, clinical lessons were not always entirely satisfactory. In London, they were only delivered twice or three times a week and students did not get an

⁶² In Paris, the 1823 ordinance increasing the number of clinical teachers from three to seven stipulated that the number of pupils in each *clinique* was to be limited to 50, a measure never respected: Wiriot, *L'Enseignement clinique*, 82.

⁶³ Wiblin, *The Students' Guide*, 26.

accurate daily summary of the evolution of cases.⁶⁴ In Paris, clinical lessons were given every day but the cases seen in the wards sometimes simply provided the background to a very elaborate lecture on pathology, written in advance.⁶⁵

Clinical instruction was the object of many complaints to *The Lancet* in the 1820s. A letter sent by a student in 1824 incorporated almost all the pupils' points of contention:

In your last number, a student complains, and I doubt not very justly, of the surgeons of one of the hospitals neglecting the fulfilment of their bounden duty, in omitting to communicate to the pupils, *whose money they had received*, that information which the students had a just right to expect.... The hurried pace from bed to bed—the often superficial examination of the patient—and the absence of all comments on the respective cases however interesting some of them might be, have been such that the student has come out of the ward just as wise as when he went in... It is not expected that a surgeon will stop and give a lecture on every patient. But why is not some regulation adopted, by which all the students, in succession, may have sight of the patient and a good view of every local case which happens to be an external and visible one? Why are they not more frequently made acquainted with the name and real nature of the disease, its history, the means adopted for the cure and the reasons why such remedies are chosen? Why, in short are not observations of practical importance more commonly made in the presence of students, for their individual advantage? We should not then hear some of the pupils say “there is nothing to be learnt here!” and others “we must catch what we can”.⁶⁶

The author of the article suggested some practical solutions to improve the quality of teaching. For example, he asked that the name of the disease be specified on a card attached to the patient's bed, as it was done in certain hospitals. A few weeks later, another student wrote to *The Lancet* to suggest that the London schools adopt the method used in French and Italian hospitals, where daily accounts of all interesting cases were kept by dressers and read aloud and commented on by the surgeons and physicians on their rounds.⁶⁷

⁶⁴ In 1818, Alexander Marcet wrote that clinical lectures were scarcely known in London. The Society of Apothecaries did not yet require attendance at clinical lectures and the regulations of most hospitals demanded that, to be admitted as clinical pupil, a student should enter as physician's pupil and should have previously been admitted to two courses of medical practice, two requirements which only a small minority could satisfy: Marcet, *Some Remarks on Clinical Lectures*, 5-8.

⁶⁵ Mireille Wiriot writes that ‘what the lesson gained in quality, it lost in spontaneity’. Wiriot, *L'Enseignement clinique*, 147.

⁶⁶ ‘Letter to the Editor of the Lancet by a Student of Another Hospital’, *The Lancet* (1824), iv, 158-9 (the italics are mine). The author of the letter added that his remarks applied to both surgeons and physicians.

⁶⁷ ‘Letter to the Editor, by a Student’, *The Lancet* (1824), iv, 184-5. The correspondent added: ‘What is commonly called walking the hospitals is a complete farce, and for the most part the time spent by the pupil in going round the wards with the surgeon is so much time thrown away. This is an evil of no small magnitude to students who are compelled to enter a hospital and who pay a considerable sum for doing it.’ In Paris, the great number of patients under their care actually prevented physicians and surgeons from undertaking the clinical reports themselves, and obliged them to delegate that task to *internes* and *externes*.

Hospital experience

Despite the widespread enthusiasm for clinical science and its inclusion into the curriculum, regular clinical training provided little first-hand experience of medical and surgical care. Students were mere spectators and were not expected to undertake any direct treatment of patients. Only a small minority of them obtained the right to dispense their services to the sick. This restricted privilege disappeared only in 1843 in Paris and the 1860s in London, when mandatory hospital experience was introduced into the curriculum. For the first time, all students were asked to participate in the standard care of patients under the supervision of nationally recognised practitioners. Strangely, this major improvement of instruction—a landmark in the history of medical education—has rarely been noticed by historians.⁶⁸ The persistence of the structures which allowed certain privileged pupils to take on greater hospital duties (*internes*, dressers, etc.) may have hidden the fundamental changes affecting the majority of students.

Eighteenth-century hospital surgeons were regularly assisted by apprentices who had not yet qualified. These students, called dressers in London and *internes* in France, gained much sought-after experience by performing minor surgical tasks and seconding surgeons during operations. When prospective general practitioners increasingly sought training in clinical surgery, surgeons found themselves surrounded by young men who were not their apprentices but wished to be employed as dressers. A new kind of relationship between pupil and master was born, whereby advanced students looked for a short but intense period of tutoring rather than for a lengthy and expensive indenture.

In France, the selection of the *internes* directly by each surgeon came to conflict in the 1790s with the meritocratic ideals favoured by the Revolutionary reformers. On 17 February 1801 the Parisian hospitals, which were independent charitable institutions before the Revolution, were placed under the jurisdiction of a municipal body, the General Council of

⁶⁸ The focus of historians has been drawn towards the origin of the clinical revolution during the eighteenth century, when clinical instruction emerged as a major element of training. See for example M. Foucault, *Naissance de la clinique* (Paris, 1963) and O. Keel, *L'avènement de la médecine clinique moderne en Europe, 1750-1815: politiques, institutions et savoirs* (Montréal, 2001) on the debate over the specificity and origin of the French 'clinique'.

Hospitals and Hospices. On 23 February 1802, the General Council published a decree centrally organising the recruitment of physicians, surgeons and student assistants for all metropolitan hospitals. In order to ensure the selection of the best students, a competitive examination (*concours*) was organised every year. In recognition of their service, and to encourage young men to enter the competition, *internes* were paid an annual salary of 500 Francs.⁶⁹ A second category of hospital pupils, the *externes*, were recruited through a second *concours* and given a chance to obtain practical instruction by assisting the *internes*.⁷⁰ Unlike *internes*, *externes* were not lodged in the hospitals and did not receive any stipend. They constituted the first level of hospital students, from which all future *internes* were selected.

Externes were responsible for bandages and other minor surgical tasks. They also had to establish the clinical chart of patients in their service.⁷¹ Accession to the *internat* brought more responsibilities: *internes* were in charge of monitoring the sick and controlling the correct administration of treatment. They also assisted surgeons during operations and performed autopsies. Night duties were shared by the two or three *internes* in each service. When they were ‘on call’, they acted in place of the physicians and surgeons and responded to emergencies, operating if necessary.

In contrast with the eighteenth century, and in line with the unification of medicine and surgery, hospital pupils were not confined to the surgical departments. To get the broadest possible experience, *externes* and *internes* worked alternatively in medical and surgical services. They also moved from one hospital to another each year to see different types of specialties (dermatology at St Louis, mental illnesses at La Salpêtrière, children at the Hôpital des Enfants,

⁶⁹ The cost of their accommodation within the hospital was deducted from this salary.

⁷⁰ The term ‘hospital pupil’ is not here used in the same way as in nineteenth-century London to signify the medical students matriculated at a hospital where they attended courses. Rather, it indicates students who were given responsibilities in the care of patients (*élèves des hôpitaux*).

⁷¹ This clinical data included the information on the patient and his/her history. It also comprised the history of the disease, the exterior appearance of the patient, clinical signs, practitioner’s diagnosis, diet, treatment and medicines prescribed.

etc.).⁷² This rule could however be bent when a surgeon or a physician applied to the General Council to retain an *interne* in his service.

Examinations for both the *internat* and the *externat* took place in November, a few weeks after the start of the medical session, and the successful students assumed their functions on 1st January. Just over 100 *externes* and between 25 and 40 *internes* were appointed each year, the numbers varying according to the needs of the hospitals.⁷³ The functions of *externe* and *interne* lasted two years, with those of *internes* almost automatically prolonged for another two years. In 1847, the General Council of Hospitals decided to open further the doors of the *internat* by increasing the number of positions offered each year while reducing the usual length from four years to three. Approximately 200 *externes* and 120 *internes* were therefore employed at any one time in the hospitals and hospices of Paris, which meant that about one in four of the 1,200 Faculty pupils obtained a hospital position, while one in ten successfully reached the elite of the *internat*.

Although *concours*, generalised by the Revolution, were seen at first as an improvement on arbitrary appointments, they too quickly came to be criticized. Despite their meritocratic pretences, *concours* were affected by the same drawbacks as appointments or closed competitions. The jury's independence was illusory: examiners were consistently approached by colleagues to support certain candidates. Delasiauve argued that a student who, lacking a powerful patronage, failed to canvass for his appointment at the *internat*, would be unquestionably snubbed by the jury.⁷⁴ Broca's own experience with competitive examinations demonstrates that talent alone did not prevail in the selection of candidates, and that one needed to be prepared against deception

⁷² This rule also ensured that a particular student was not obliged to spend several years in a hospital far removed from the Faculty.

⁷³ The General Council of Hospitals quickly realised that the number of *internes* was insufficient yet instead of increasing that number, which would have reduced the value of the institution, chose to appoint probationary *internes* amongst the *externes*. In 1819 two classes of *internes* were created: while the first-class *internes* were fully-fledged *internes*, the second-class were only probationary, a system abandoned a few years later when the General Council went back to the simple probationary *internes*: J. Fossard, *Histoire polymorphe de l'internat en médecine et chirurgie des hôpitaux et hospices civils de Paris*, 2 vols. (Grenoble, 1981), vol. 1, 30-31.

⁷⁴ Delasiauve, *De l'Organisation médicale*, 115. In 1828, *La Lancette française* reported that a professor dissuaded a medical student from competing for the *internat* because the young man did not have any protectors among hospital practitioners and professors: Wiriot, *L'Enseignement clinique*, 150.

as well as unexpected support. At the *internat* examination, having been appointed *externe* only the previous year, Broca was still unknown to many professors. Although he disapproved of recommendations, he nonetheless felt compelled to seek them to avoid failure. Through, a family acquaintance, General Subervie, he sought Rostan's patronage and later had some of his friends plead his case to two other jurors.⁷⁵

The eighteenth-century mode of selecting dressers remained in place in England well into the nineteenth century. For a fee, London hospital surgeons permitted a few advanced students to care for some of their patients. At Guy's Hospital, for example, each surgeon had the right to appoint four dressers. Securing such an office was vital for any student intending to become a pure surgeon as it provided experience unmatched by other means of instruction, except an expensive apprenticeship to a hospital surgeon. The restricted market clearly worked in favour of the surgeon's pocket. With so many pupils wishing to become dressers and so few places, the fees increased dramatically and often became the key element in the selection process. In the early part of the nineteenth century, access to a dressership tended to be determined by financial means and patronage rather than merit. According to Geoffrey Rivett, 'dressers were not chosen for their talent or proficiency, but in consideration of an additional fee of £50 for twelve months'.⁷⁶ There were even occasions when the selection of dressers was in effect the result of an auction. Since the surgeon did not have to justify his choice to anyone, the highest bidder obtained the place.⁷⁷

In London, dresserships were normally held for one year in the late 1810s. However, while Parisian salaried *internes* were able to defer their graduation for several years, few London dressers

⁷⁵ The results of each examination were given immediately following the tests so that, as the *concours* progressed, students knew their chances compared to other candidates. After his first oral examination, Broca was separated by only a few points from another candidate supported by the Catholic Société de Saint Vincent de Paul. Knowing that the devout professors would not vote for him, a Protestant, Broca was obliged to seek more support: Broca, *Correspondance*, vol. 1, 256-57.

⁷⁶ G. Rivett, *The Development of the London Hospital System, 1823-1982* (London, 1986), 34.

⁷⁷ Holloway and Singer, 'Early Medical Education', 6.

could afford to retain their expensive position for long. In his 1818 *Hospital pupils' guide*, Lawrence Potts therefore recommended his readers 'to enter for a twelvemonth as pupil to the hospital;... and then... to take a six months' dressership in [the] last year's attendance.'⁷⁸ In 1827, Thomas Hodgkin also advocated a short dressership, acknowledging that the position unquestionably afforded the greatest advantage surgical pupils could obtain. He regretted, however, that there would still be far fewer dresserships than there were pupils, even if the office was limited to six months as he wished.

Hodgkin also suggested extending the system of dresserships to the medical wards, recommending that students follow, as voluntary clerks, the instruction dispensed by one of the physicians, as dressers did for a fee with surgeons. Since clerks would not enter into a financial contract with the physician their number would not need to be limited, but these positions would enable them to sharpen their powers of observation, and accustom them to writing clinical reports.⁷⁹ Until the 1820s, London physicians were assisted by one or two pupils, often Oxford and Cambridge students who came to the capital to gain practical knowledge. Giving responsibilities to apothecaries' apprentices, as clinical clerks, in the medical wards was a new idea. In the late 1820s and early 1830s, however, hospital schools gradually appointed three or four clinical clerks to assist each of the physicians as dressers did to surgeons.⁸⁰ Additional dresserships were created in the surgical departments and the usual length of service was reduced to six months, increasing the number of students holding junior hospital positions.⁸¹

Although opportunities to gain hospital experience had improved by the 1830s, the inadequate selection process still caused irritation among students. Without public examinations, except at University College and King's College, some of the most talented pupils were still prevented from reaching vital positions. Gradually, medical schools started to select dressers and

⁷⁸ Potts, *The Hospital Pupil's Guide*, 29-30.

⁷⁹ Hodgkin, *An Essay on Medical Education*, 15-19.

⁸⁰ Butler, 'Science and the Education of Doctors', 51; Wright, *Medical Students of the Period*, 57.

⁸¹ In a small hospital with few students like Westminster, the rapid turnover became part of the regulations. There, dressers held the office in turn, according to the time of entrance, for two weeks at a time: *The Lancet* (1836-37), i, 11.

clerks from among the best students, although a formal examination was rarely established. As the new dressers and clerks were found worthy of their positions, the fee lost its legitimacy and was waived. With this evolution, students also became attached to the hospital school and not directly to a particular professor as the apprenticeship tradition had previously required.

By 1847, almost all major London medical schools selected dressers and clerks from among the most talented and dedicated clinical pupils, and required no additional fee. Only at St Bartholomew's Hospital did dressers still have to pay a substantial fee.⁸² This discrepancy led a student of that establishment to complain to *The Lancet* in 1850 about the 'sale of the office of dresser' at that hospital. He argued that while in other great hospitals the position of dresser was obtained by competition, a system which stimulated students to make 'the utmost exertion in their studies', the twelve guineas for three months of office required at St Bartholomew's were 'an abuse seen in no other school in London.'⁸³ Despite this complaint, dressers at that school continued to pay for the position until the 1860s.

Towards the end of the 1850s the positions of dressers and clerks in the in- and out-patient services were clearly defined in the London hospitals. Dressers were taught to roll and bandage, and to offer essential assistance to the surgeons. In the medical wards, clinical clerks watched the progress of disease and helped their superiors administer remedies.⁸⁴ Like the *internes* and *externes* in Paris, dressers and clerks kept clinical records. Work in the out-patient departments was very demanding and not always agreeable. Although some of the tasks performed were closer to nursing than to medical or surgical care, the offices of dresser and clerk presented advantages due to their close contact with the staff:

For twelve weary months, in the ill-ventilated, evil-smelling, underground hall, [as an out-patient dresser] I daily applied splints to crooked legs, Scott's dressing to enlarged joints, and strapping to the ulcerated lower extremities of elderly women ... practically all belonging to the tribe of the 'great unwashed'. It was not a most desirable post, but, with

⁸² The fee was £12.12s, £18.18s and £26.5s for three, six and twelve months respectively. At that period a complete medical education to prepare for both diplomas of the Society of Apothecaries and the College of Surgeons cost about £90. At St Bartholomew's clinical clerks were selected as in the other hospitals and their appointments were free of charge.

⁸³ 'The Office of Dresser in St Bartholomew's Hospital', *The Lancet*, (1850), i, 159.

⁸⁴ Basham, *Introductory Lecture*, 32.

all its drawbacks, greedily sought for; by it one was brought in contact with the Assistant Surgeons.⁸⁵

Robert Temple Wright agreed, writing: ‘One soon grows very tired of this, for you get scarcely any interesting cases and you are so glad when your six months of office have expired.’ In contrast, he stated that the in-patient appointments of dresser and clerk constituted the most interesting stage of medical studies. Pupils shared the patients among themselves, not the duties, and therefore felt responsible for the care of those whom they followed from admission to discharge or death.⁸⁶

The evolution from optional to compulsory hospital experience, established in the 1840s as a milestone of progress in Paris, did not receive priority in London until the 1860s. As early as the 1830s, Parisian professors and reformers acknowledged that the crowded clinical wards of the Faculty could not provide appropriate training. Although rounds and clinical lessons offered a means to gain practical knowledge, they did not permit students to care for patients. While nearly all hospitals allowed students to volunteer and gain first-hand experience, many pupils forfeited this opportunity and did not attend patients during their education. Only approximately one quarter of the student population, the *externes* and *internes*, received complete clinical experience actually treating patients. The medical school could therefore not pride itself on teaching practical medicine when some students graduated without having ever treated a sick person. Besides, it was difficult to justify that the great majority of pupils were confined to the official Faculty clinical wards at the Hôtel-Dieu and the Charité, while hundreds of beds in the other Parisian hospitals only served to instruct a handful of *externes* and *internes*.

To diminish the gap between student experiences and take advantage of all potential instruction, the decree of 3 October 1841 ruled that Faculty students volunteer a year’s hospital

⁸⁵ ‘100 Years Ago’, 81.

⁸⁶ Wright, *Medical Students of the Period*, 95.

service (*stage*) after their eighth term if they failed to get an *externe* position.⁸⁷ As *élèves bénévoles* they would perform some of the minor duties previously entrusted to *externes*, and would have a chance to study patients more closely. The new measure was well received by reformers who saw the opportunity to gain practical experience finally given to all. Mireille Wiriot has convincingly argued, however, that the creation of the *stage* was not motivated simply by the wish to improve instruction and that it did not deliver everything it promised. In the late 1830s, Parisian *externes* had been neglecting their duties, probably because they resented being given an increasing workload without any added responsibilities. Every year, several dozen *externes* were dismissed for absenteeism. The General Council of Hospitals hoped to raise the falling numbers of student assistants with the *stage*. However, the new measure produced two adverse effects. First, the *élèves bénévoles* tended to see the *stage* as a right and not a duty. The mandatory aspect quickly lost its value when students decided that they were free to come or not. When they came, they expected to learn and not to fulfil an effective function. Secondly, students could now get the same type of experience that the *externat* offered without having to pass a difficult *concours*, and the number of candidates to the *externat* examination dropped, despite a financial incentive introduced in 1843.⁸⁸ In spite of these early disappointments, the *stage* proved beneficial when attendance was controlled more tightly in the 1850s and increased to two years in 1862.

It is hardly surprising that the evolution from optional to mandatory hospital experience first occurred in Paris. Clinical medicine was more advanced there than in London, and its development was promoted by both the Faculty of Medicine and the hospital practitioners. Furthermore, French students possessed overall far less experience of interacting with patients than their English counterparts. In London, prospective surgeon-apothecaries had already treated patients during their apprenticeship, albeit before they had a thorough knowledge of medicine, and under the supervision of a general practitioner instead of a recognised hospital

⁸⁷ A. Amette, *Code médical ou recueil des lois, décrets et règlements sur l'étude, l'enseignement et l'exercice de la médecine* (Paris, 1853), 74; Picard, 'La Réglementation des études médicales', 22.

⁸⁸ Wiriot, *L'Enseignement clinique*, 149-53. The General Council decided that each hospital practitioner would receive 300 Francs to be distributed between his *externes*.

physician or surgeon. For this reason, the pressure to provide hospital experience in addition to attendance at hospital practice was weaker than in Paris. By the mid-1850s, several London hospitals imposed compulsory hospital experience as dresser and clerk to all the pupils registered for the clinical courses, and wherever this was not mandatory most students nevertheless chose to hold these positions in turn.⁸⁹ Robert Temple Wright wrote that at University College, for example, pupils became out-patient dressers during the first half of their third year, moving to clinical clerkships in the second semester. The following year, they pursued the same itinerary for the in-patient offices.⁹⁰ A tradition therefore emerged before the licensing authorities followed suit with a rule. In 1863, the College of Surgeons required mandatory experience as a dresser for at least six months and the Society of Apothecaries introduced a similar regulation (limited to six weeks) for clinical clerkship in 1870.⁹¹

THERAPEUTICS AND SCIENCE

The emphasis placed by French and English professors on separate aspects of clinical training is revealed in the time dedicated to clinical study and its daily organisation.⁹² At the end of the eighteenth century, apothecary and surgeon apprentices came to London mainly to walk the wards. In the absence of formal course requirements they complemented the experience of treating patients gained during their apprenticeship with clinical instruction available in hospitals and dispensaries. In London, apprentices acquired more expertise on surgical cases, which the

⁸⁹ These rules were introduced in 1857 at St George's Hospital: Fuller, *Advice to Medical Students*, 20. In 1867, St George's also abolished the distinction between dressers and clerks by placing students in rotation under the care of a physician or a surgeon: Holmes, *The Introductory Address*, 6-7. By 1859, the Middlesex Hospital students were also required to undertake 'a continuous course of employment in the wards': M. Henry, *The Address Delivered at the Opening of the Classes of the Middlesex Hospital Medical College, Session 1859-1860* (London, 1859), 21.

⁹⁰ Wright, *Medical Students of the Period*, 58.

⁹¹ The dressership was to be held after two years' professional education.

⁹² Interestingly, the unification (in France) or separation (in England) between medicine and surgery did not have particular consequences on education because the great majority of English general practitioners undertook a type of training which was both medical and surgical. The Paris MD and the combined LSA-MRCS curricula required a similar proportion of courses in medicine and surgery. Instead, the difference existed in the way teaching was imparted: clinical study made up 79% of the time dedicated to medicine, surgery and midwifery for the Paris MD compared with 72% for the LSA-MRCS and only 46% for the London MB. Overall, clinical study made up 49.5% of all the teaching time in Paris, compared with only 31.5% in London.

work of a country practitioner could not offer on a regular basis. They also gained some familiarity with the latest discoveries and fashionable treatments.

London clinical teaching developed in an institutional setting where treating patients took precedence over medical and surgical instruction. The content of clinical teaching was thus very closely linked to treatment rather than to symptomatology, a characteristic accentuated by the financial constraints which pushed students to seek practical answers to situations they would encounter once in practice. After 1815, hospitals took on a broader function, gradually assuming the teaching of anatomy and theoretical courses, previously offered by private schools and teaching ventures, while retaining their role as clinical instruction providers. However, clinical medicine was taught by physicians who traditionally had ventured very little into the domain of surgery and anatomy. The structure of clinical teaching therefore remained separate from the disciplines which were the basis of clinical investigation, such as anatomy and pathology, and continued to be focused on therapeutics.

The therapeutic emphasis which characterised the English medical schools could not find favour in Paris where French physicians and surgeons held a slightly more scientific view of medical instruction. Although situated at the Hôtel-Dieu and Charité hospitals, the clinical wards were controlled by the Faculty, which appointed the professors and provided teaching guidelines. The medical school was therefore able to instil its ideals about clinical instruction into the curriculum.

The close attention given to clinical investigation in Paris was in tune with the development of observational medicine and its recourse to anatomy, surgery and morbid anatomy. Xavier Bichat's physiological discoveries in the last years of the eighteenth century and the establishment of anatomo-clinical observation as a science by Gaspard Laurent Bayle in 1802 were quickly embraced by the *École de Santé* professors. Moreover, the attachment of the school to these scientific pursuits was reinforced by its double role as teaching institution for the elite of surgeons and physicians, and research institution for the government through the *Société*

de l'École. Once the professional bodies abolished, the government was free to shape the curriculum and train future medical practitioners for what it judged to be the lasting benefit of the nation rather than for the more immediate advantage of a category of practitioners. Physicians and surgeons were thus encouraged to make discoveries and push back the boundaries of medical science.

The Faculty's anatomo-clinical philosophy imparted in theoretical courses quickly penetrated the clinical wards and permeated bedside teaching. From 1794, the Faculty insisted on the importance of clinical teaching, but by 1815 diagnosis itself had become a science and therapeutic practice was relegated into the background to make way for clinical investigation.⁹³ Research into disease was based on three levels of exploration: the healthy body (anatomy), the sick body (clinical research), and the dead body (morbid anatomy). The curriculum of the École de Santé, designed to train both physicians and surgeons, struck a balance between the theoretical knowledge of medicine and the skills necessary for surgery, which, combining the anatomical knowledge of the surgeon with the pathological insight of the physician, developed successfully into the anatomo-clinical method. Hospital practitioners aimed at building a semiology of each affection, establishing a list of symptoms, describing their characteristics, and reporting their evolution through time and in response to treatment. All this information could then be verified during the post-mortem examination if the patient were to die.

The medical establishments of London and Paris therefore attacked disease from two completely opposite ends. While the London hospital practitioners concentrated on their fundamental task of curing patients, in Paris they tended to sacrifice or neglect the immediate concerns of the sick in favour of the ambitious goal of establishing a complete analysis of

⁹³ Bichat had actually created a 'clinique de thérapeutique' at the Hôtel-Dieu, where he tried to study the properties of medicines in various affections, but these experimentations stopped after his death: S. G. G. Bruté, *Essai sur l'histoire et les avantages des institutions cliniques* (Paris, 1803), 87-8.

diseases and their symptoms. The difference between the London clinical practice and that in Paris lay in that short- or long-term vision.

The French hospital system, where surgeons and physicians were employed by the General Council and not by the specific hospital in which they worked, also facilitated such a mission. Hospital practitioners transferred from one establishment to the other during their career according to the vacancies, which limited nepotism and encouraged information-sharing. Equality of rank between surgeons and physicians also promoted the creation of this large scientific community. In London, where hospital schools were disconnected from each other, much less opportunity arose for knowledge sharing.

The focus of the clinical work undertaken by hospital staff affected the organisation of clinical teaching. The greater duration of rounds in Paris owed not only to the larger size of the Paris hospital wards, but also to the fact that French physicians and surgeons spent significantly more time than their London counterparts describing symptoms and examining their minute evolution.⁹⁴ They concentrated on patients with acute diseases, which often offered significant symptomatic changes. Parisian professors also systematically followed the round by a clinical lesson, to put the clinical signs witnessed in the wards into context and relate them to known pathological lesions. Parisian students were encouraged to take part in the advancement of science and to contribute to the ambitious research undertaken by the medical elite. For example, a few years after the establishment of the *École de Santé*, Jean Jacques Leroux des Tillet, assistant-professor of clinical medicine, created the *Société d'Instruction médicale*. His most advanced students were divided into groups and given a few patients each to observe and report on. Between 1799 and 1818 this clinical society produced more than 5,000 observations and countless reports on post-mortem operations.⁹⁵

⁹⁴ In 1845, students at the major London hospitals, such as St Bartholomew's and the North London Hospital, were only allocated one hour-long clinical visits. Charing Cross Hospital was one of the rare establishments to extend that time to two hours.

⁹⁵ The two-page form used during clinical examinations is witness to the thorough investigation that students undertook: J.-J. Leroux des Tillet, *Compte-rendu de l'École de Médecine: 2^o Travaux faits par les membres de la Société*

By comparison, the clinical wards of the London hospitals were smaller and professors concentrated on the treatment of a handful of cases which did not necessarily provide enough material for a daily clinical lesson. Whereas everything in the Paris hospitals was organised to allow advanced students to conduct their own research, London hospital administrations were less favourable to student contribution. Only surgeons' apprentices, dressers, clinical clerks and physician's pupils had a chance to expand their clinical instruction. Before 1830 the dispensaries provided a considerable share of clinical instruction, which reinforced the emphasis on therapeutics rather than clinical investigation.⁹⁶ Out-patients presented a range of common ailments which offered students opportunities to treat but were not interesting research material. Furthermore, these patients, not ill enough to resign themselves to the hospital, did not lend themselves easily to examination and it was very difficult to follow these cases through time, especially all the way to the dissecting table.

The focus on therapeutics in the English metropolis may be explained by the influence of the professional structure and the aims of the regulating bodies. The choice of the Society of Apothecaries as the sole examining authority for the practice of medicine by non-physicians had lasting consequences on the direction of medical instruction in London. Although a majority of its members also practised surgery regularly, the Society chose not to infringe on the traditional domain of the College of Surgeons and accordingly devised a curriculum which concentrated on pharmacy and medicine.⁹⁷ Its licentiates would be entitled to act as pharmacists, and therefore

d'instruction médicale du 1er septembre 1807 au 1er septembre 1808 (Paris, 1809); Leroux des Tillets, *Commission de l'Instruction publique. Académie de Paris: Faculté de Médecine. Clinique interne: Société d'instruction médicale, règlement* (Paris, 1818). Towards the end of the 1810s the number of members decreased, as candidates were put off by very demanding regulations. The Society disappeared in 1822 when Leroux des Tillets lost his position as professor. See 'Political involvement', page 214; see also F. Palluault, 'La Société anatomique de Paris (1803-1873). Étude institutionnelle et prosopographique d'une société médicale parisienne au XIXe siècle' (École nationale des Chartes, Paris, thèse pour le diplôme d'archiviste paléographe, 1999), 31-3.

⁹⁶ On the dispensaries' influence, see below page 57.

⁹⁷ The first winter of studies designed by the Society of Apothecaries is revealing: the teaching was divided equally between the traditional domain of the apothecary and his new domain as medical practitioner: materia medica, chemistry, anatomy and medicine. Prospective London general practitioners spent a greater part of their studies on courses such as chemistry, botany, materia medica, therapeutics and pharmacy than their French counterparts

needed an in-depth understanding of pharmacy and therapeutics. Although as general practitioners they needed a sound understanding of medicine, even those who focused on medical care would derive a great part of their income from the sale of remedies they compounded and prescribed.⁹⁸ In these circumstances, it was only logical that their training emphasised therapeutics.

The Society of Apothecaries had its own agenda in shaping the medical training requirements. It was justifiably concerned that taking responsibility for the overall education of general practitioners and drawing up a more complete curriculum would dilute its identity. Through the course requirements for the licence, the Society sought to re-emphasise its position. The new responsibilities thrown upon it by the Apothecaries' Act diverted the Society from its more obvious vocation as a professional body reigning over the specific field of pharmacy. By requiring a strong therapeutic background, the Society ensured that even the licentiates who dedicated the majority of their time to medicine remained attached to the original discipline.⁹⁹

In contrast, the therapeutic disciplines only represented a peripheral subject in the Paris curriculum. The compounding and dispensing of medicines was the sole realm of pharmacists, who received a specialised education either at one of the three *écoles de pharmacie* created in 1803, or at one of the *écoles secondaires de médecine et de pharmacie* established in the 1820s. Only a minority of countryside practitioners sold remedies in villages where there were no resident pharmacists. Thus French medical students required only a cursory understanding of these disciplines to be able to prescribe medicines, and pharmacy itself remained beyond their own sphere of activity.

around 1845 (11.8% compared to 5.6%). Even in absolute numbers—and despite a shorter curriculum—they attended more lessons in these areas.

⁹⁸ From 1829, apothecaries were allowed to ask for a maximum of 2s 6d. per visit for medical advice. They were therefore obliged financially to retain their trade in medicines until the passing of the Medical Act of 1858: W. S. C. Copeman, *The Worshipful Society of Apothecaries of London: a History, 1617-1967* (Oxford, 1967), 55. The legal separation between the professions of medicine and pharmacy only occurred with the passing of the Pharmacy Act of 1852: W. H. McMenemey, 'Education and the Medical Reform Movement', in F. N. L. Poynter (ed.), *The Evolution of Medical Education in Britain* (London, 1966), 135-54.

⁹⁹ The emphasis on pharmacy and therapeutics by the Society of Apothecaries is evident in the high rejection rate of Scottish graduates who failed in materia medica and therapeutics: *RSCME*, vol. 3, 27.

Their fee was in reward for their medical advice and not the sale of medicine; therefore, French general practitioners had no incentive to develop their pharmaceutical knowledge.

The formal separation between pharmacy and medicine had adverse effects on the development of medicinal therapies by French hospital physicians and pharmacists. This relative neglect of therapeutics was reinforced by the hospital practitioners' concerns that little was understood about the development of affections inside the body, and that no recognized medicine was capable of halting the evolution of such illnesses. These views led to 'therapeutic nihilism', as traditional medicines were more or less condemned as inefficient and eliminated from regular practice. The trials of new medicines and the treatment of patients were therefore neglected, a fact which could not escape the attention of English visitors to the Paris hospitals. Sir James Clark exclaimed that it was 'sickening to an English physician in visiting the hospitals of Paris to hear nothing but these eternal tisanes ordered for every patient, let the disease be chronic or acute'.¹⁰⁰ Some twenty years later an American physician voiced the same view: 'There is ... often noticed such an intense devotion to mere scientific investigations, as causes the prescriber to forget the cure of the patient, in his anxiety to study the pathology of the complaint'.¹⁰¹ Notably, the title of prescriber is one that Parisian hospital practitioners would have rejected, as they saw themselves first and foremost as *cliniciens*.¹⁰²

The anatomo-clinical method provided a wealth of insight into the healthy and diseased body but did not produce cures, as an article from *The Lancet* explained:

It is impossible to go through the wards without being struck with the inert measures generally used; the treatment is passive and dietetic; and that in a degree bordering on the ridiculous; whereas the English practitioners treat their patients with great activity, and perhaps verge to the opposite extreme. ... What was once said by a writer in the *Edinburgh Review* still holds good as regards the practice of the French, namely that 'the English kill their patients, whilst the French allow them to die'.¹⁰³

¹⁰⁰ Clark, *Medical Notes on Climate*, 170.

¹⁰¹ *New Orleans Medical and Surgical Journal*, 1856-7, 13, 242-3. Quoted from J. H. Warner, 'The Selective Transport of Medical Knowledge: Antebellum American Physicians and the Parisian Medical Therapeutics', *Bulletin of the History of Medicine*, 59 (1985), 220.

¹⁰² Indeed, there is no satisfactory French translation for that word.

¹⁰³ 'French Schools', *The Lancet* (1826-27), ii, 109. In 1834, the physician Chomel limited his treatment of a case of perforation of the intestine to the application of leeches. An English student wondered why he did not try opium,

Practitioners who admired the role of France in medical advances were not blind to these shortcomings. John Harley Warner writes that ‘even those Americans who were most enthusiastic about the promise of French medical science tended to believe that its practice embodied an embarrassing valuation of knowledge over healing’.¹⁰⁴ John Ware, professor at the Harvard medical school in the 1830s, wrote that no nation had contributed more to the progress of medicine than the French, but that ‘their tendency is to be satisfied with science’.¹⁰⁵ Even one of the greatest French physicians, Laennec, could not escape criticism for his practice:

With all M. Laennec’s power of diagnosis his practice is inert and unsatisfactory; an observation which applies not to him alone but to almost all of his countrymen, and must be the occasion of considerable astonishment to everyone. With the nature of disease, the diagnosis and every other circumstance relating to it, they are infinitely our superiors, but in therapeutics they sink infinitely beneath us. ... For anatomy, physiology and pathology, we have no hesitation in pronouncing the Parisian school the very best in the world. ... However, the inert practice which is almost universally observable renders the hospitals as schools of therapeutics, infinitely contemptible.¹⁰⁶

The conditions placed upon dissections in Paris and the number and size of the hospitals partly explain the scientific direction taken by the French medical profession. But the organisation of medical instruction also greatly encouraged students participate in the research effort. The training was identical for the students who wished to become general practitioners in a provincial town and those who set their sights on the highest professional positions. It was also the same for students wishing to pursue a surgical career and those who planned to dedicate their time to medicine. This homogeneity provided little scope for distinguishing oneself amongst fellow colleagues. Parisian pupils thus used anatomical and clinical research to make discoveries and publish articles, in a bid to bring attention to themselves.

according to Grave’s methods, and exclaimed: ‘surely, it is worth trying!’: London, WLHUM, Diary of an Unknown English Medical Student in Paris, MS 7147, 45 v.

¹⁰⁴ Warner, ‘The Selective Transport’, 219.

¹⁰⁵ J. Ware, ‘Success in the Medical Profession’, *Boston Medical and Surgical Journal* (1850-1), 43, 509. Quoted from Warner, ‘The Selective Transport’, 222.

¹⁰⁶ ‘The Medical Practice of the Parisian hospitals’, *London Medical Repository* (1824), 517, 522. The physician John Wiblin was similarly dismayed by the Parisian therapeutics: ‘Although we hear much about “la thérapeutique” it is to a certainty, either very little understood or most sadly neglected’: Wiblin, *The Students’ Guide*, 61.

In his book on the eminent physicians and surgeons of London, Forbes Winslow argued that, whereas in France scientists were encouraged to research, in England very few men undertook medical studies with a view to enlarging scientific boundaries and instead sought to build lucrative practices.¹⁰⁷ Student opportunities for research in London were clearly more limited. Prospective apothecaries would be unable to secure hospital appointments as physicians because they lacked the MD degree and could not become members of the Royal College of Physicians. It was therefore not worth their while to invest much time in scientific pursuits which would bring little profit to their career. Only a small group of pure surgeons could hope to join the professional elite. Physicians, whose thorough knowledge and professional status placed them in the best position to undertake scientific research, benefited from rich clienteles and secure social positions, which provided a pecuniary and enjoyable obstacle to undertaking pathological research.¹⁰⁸ In contrast, the Scottish-trained physicians who did not have established roles in high society but yearned for them, possessed altogether the combined knowledge of medicine and surgery, the necessary titles and the impetus to make their mark in research.¹⁰⁹

LABORATORIES AND BOTANIC GARDENS

Medical students were taught the core disciplines such as anatomy, medicine and surgery in the lecture theatres, dissecting rooms and clinical wards. However two other facilities, laboratories and botanic gardens, played fundamental roles in the geography of the medical curriculum. The shift from clinical to laboratory medicine represents one of the most salient aspects of medical education in the second half of the nineteenth century. Thanks to the progress of disciplines such as physiology, cytology and microbiology, research in accessory

¹⁰⁷ Winslow, *Physic and Physicians*, vol. 2, 182-5.

¹⁰⁸ The London corporations, embedded in professional disputes, did not lend much support to the furthering of science either.

¹⁰⁹ The physician James Copland claimed before the Select Committee on Medical Education that the physicians educated at Oxford and Cambridge were 'insufficiently imbued with a desire of medical research' because medicine was hardly taught in the two universities, and that furthermore, the monopoly on hospital positions in their favour did not induce them to obtain reputation through scientific achievement: *RSCME*, vol. 1, 205.

sciences started to be seen as part and parcel of the medical curriculum, which prompted medical schools to create new infrastructures and positions. Although laboratories appeared in medical schools from the end of the eighteenth century, it was not until the 1860s that they really developed. In the period being considered here, however, laboratory work in England and France remained limited and restricted to the teaching of practical chemistry and pharmacy.

Soon after the creation of the Paris *École de Santé* a chemical laboratory was established at the *École pratique de Dissection* to provide preparations of mineral chemistry and undertake the analysis of morbid matters collected in hospitals. In 1841, a laboratory of organic chemistry, specialising in pharmaceutical preparations, was added. The various London hospital schools also possessed laboratories, intended for professors rather than students. Their size and limited equipment allowed the professors and their assistants to prepare the daily lesson and carry out their own research but were not conducive to teaching. Practical chemistry was taught mostly through demonstrations in the main theatre and only the professor manipulated the components.¹¹⁰

Students were rarely given opportunities to become familiar with the equipment, procedures and particular gestures used in common laboratory work. In Paris, for example, chemical manipulations took place during the summer in one of the dissecting-rooms, then empty of bodies. These supervised sessions were kept short, so as to allow all students to take part in them. They were nevertheless crowded, with five students at each table competing to complete manipulations.¹¹¹

Chemical laboratories also served a second purpose by affording to a handful of advanced students the facilities and equipment to perform their own experiments. In Paris, *École pratique* pupils were entitled to use the laboratory with the agreement of the assistant to repeat the

¹¹⁰ Mineral chemistry was very popular with students because of the variety and complexity of exciting experiments that it provided. Paul Broca wrote in amazement to his parents: 'Orfila makes such stunning experiments! The other day he froze water in a melting pot heated at 1,000 degrees!' Mateo Orfila was professor of medical chemistry and dean of the Paris Faculty (1831-1848): Broca, *Correspondance*, vol. 1, 21.

¹¹¹ H. Meding, *Bibliothèque du Paris médical, enseignement et bibliographie de la médecine* (Paris, 1855), 40-1.

professor's manipulations or try various combinations of substances. Hospital students (dressers, clinical clerks and *internes*) also had easier access to the laboratory where they could analyse pathological or forensic material on behalf of the physicians and surgeons.

Botanic gardens represented another locus of medical studies. The Paris Faculty's garden was situated next to the *École pratique* before it was transferred to the eastern part of the Jardin du Luxembourg in 1834 to make place for the new Rue Racine.¹¹² In this new location, the garden was shared with the nearby *École de Pharmacie*. It was open from 6 to 10 a.m. and 3 to 7 p.m. every day from May to the end of August.¹¹³ The garden at the Museum of Natural History, within easy distance of the Faculty of Medicine, also attracted many medical students. Like the Faculty's garden it contained both medicinal and non-medicinal plants.

In London, the main botanic garden was the Society of Apothecaries' Physic Garden at Chelsea, created in 1673. Until 1829, the Physic Garden was used by the members of the Society at the discretion of the Society's Professor of Botany, and only a few pupils managed to gain access to its resources. Thereafter, however, in an attempt to increase attendance at the botany lessons, the Society decided that all medical students recommended by members would be allowed to use its facilities.¹¹⁴

In both London and Paris botany was scheduled in the summer of the first year so that a few hours could be dedicated to it without interfering with other courses. In 1845, the botany lesson was held at the Paris Faculty on Tuesdays, Thursdays and Saturdays at 10:30 a.m. and no further course was scheduled for these days. At University College London botany was scheduled on the same days at 8 a.m. and students were not required to attend any other course before 1 p.m. This allowed professors to take students either to the botanic gardens or on field trips. Students enjoyed these trips, which provided them with an opportunity to get away from

¹¹² Corlieu, *Centenaire de la Faculté de Médecine*, 142.

¹¹³ Meding, *Bibliothèque du Paris médical*, 41.

¹¹⁴ Barrett, *The Society of Apothecaries*, 202. The Society of Apothecaries also instituted prizes in Botany, *Materia medica* and Pharmaceutical Chemistry in 1830.

the daily routine and to form a bond with the professors outside the hospital setting. Additionally, many provincials were able to discover unseen parts of the city at the same time. Although botany was only an accessory science to medicine, it was often cultivated by medical students even before their studies began. Collecting plants, a popular hobby, was not reserved for learned men and could be a family activity. With country fields only a few hours' walk away, or even closer if travelling in a carriage, students often took advantage of Sunday afternoons to take a herborising trip in groups of friends.

THE ADOPTION OF INNOVATIONS

The adoption of innovations and new techniques by the medical schools provides information on the quality of instruction, and also on the adaptation of medical education to the tastes and wishes of students. Medical pupils, as young men often are, were prone to enthusiasm for any discovery that would give them an edge over their older colleagues and wished to gain a knowledge of new theories and experience of new methods of diagnosis and treatment. Charles Newman emphasised, for example, that at the beginning of the nineteenth century, young Englishmen embraced the new medicine which had developed on the Continent quicker than their reluctant seniors.¹¹⁵

Two innovations brought major changes in medicine and surgery during the clinical era: the stethoscope and the microscope.¹¹⁶ The stethoscope, invented in 1816 by Laennec, was quickly adopted by the Paris Faculty, even before Laennec himself was appointed professor in 1823. Auscultation, which advanced clinical investigation, then the main scientific concern of hospital practitioners, quickly spread. Students were taught how to use the stethoscope by the clinical teachers in the wards, by the *agrégés* at the *École pratique*, and by the *internes* in several hospitals (private tuitions).

¹¹⁵ C. Newman, 'The Influence of Medical Education on the Evolution of Medical Practice in Britain' in F. N. L. Poynter (ed.), *The Evolution of Medical Practice*, 30.

¹¹⁶ The third major innovation, anaesthesia, was quickly adopted by the profession; furthermore, its use was reserved for surgeons and students had few opportunities to employ it.

The stethoscope, being a French invention, spread more slowly in England during the 1820s. According to Sir Humphry Rolleston, mediate auscultation was disregarded by many London physicians, who used it only irregularly in diagnosis. The stethoscope was mainly welcomed by young men, like Thomas Hodgkin, who were interested in clinical investigation. Hodgkin counted the stethoscope as one of the main reasons for his journey to Paris in 1821, and introduced it at Guy's Hospital when he returned to London.¹¹⁷ In time, he and other English practitioners who had gained experience of auscultation during visits in the French capital, transmitted it to their juniors.¹¹⁸

In comparison with the stethoscope, the microscope's success in medical education proved much slower. Its employment in the official teaching of the Paris Faculty evolved gradually during the 1850s and 1860s.¹¹⁹ Immediate applications of the microscope were unclear, and its use conflicted with the tradition of 'radical empiricism which emphasised the use of the unaided senses' in clinical investigation. By 1837, students could attend Alfred Donné's private courses on microscopy at the *École pratique* and the physiology lessons of François Magendie at the *Collège de France*, where the microscope was regularly utilised. Despite the availability of courses, once the novelty subsided, only a handful of students continued to employ the tool in their research.¹²⁰

According to Margaret Pelling, in the 1840s microscopy remained the domain of amateur scientists rather than professionals in London.¹²¹ Henry Acland, for example, wrote of the St George's Hospital's teaching body in the early 1840s as 'able men of the old school, despising the stethoscope and the microscope', which they regarded as 'unpractical toys'.¹²² Ivan Waddington has argued that, in the mid-nineteenth century, many London hospital physicians

¹¹⁷ H. D. Rolleston, 'The History of Clinical Medicine (Principally of Clinical Teaching) in the British Isles', *Proceedings of the Royal Society of Medicine, Section of the History of Medicine*, 32 (1938-1939), 49-50.

¹¹⁸ In London, the spread of the stethoscope was probably linked to the introduction of clinical clerks in hospitals, who unlike physicians, disposed of enough time to try the new instrument.

¹¹⁹ The chair of histology was created in 1862.

¹²⁰ A. La Berge, 'Medical microscopy in Paris, 1830-1855' in A. La Berge and M. Feingold, *French Medical Culture in the Nineteenth Century* (Amsterdam, 1994), 296-326.

¹²¹ M. Pelling, *Cholera, Fever and English medicine, 1825-1865* (Oxford, 1978), 153-5.

¹²² Atlay, *Sir Henry Wentworth Acland*, 110.

‘employed a vocabulary which routinely invoked science as the foundation of medicine but which prescribed for science only a limited role in clinical practice.’¹²³ Not until Richard Grainger at St Thomas’s Hospital (1847) and Lionel Beale at King’s College (1853) promoted the teaching of practical microscopy, did students begin to familiarise themselves with this instrument. Even then, the teaching of microscopy remained optional, until the General Medical Council formally recommended it in 1869.¹²⁴

CONCLUSION

It is difficult to establish accurately what was taught in each discipline without a very close analysis of textbooks, which is beyond the scope of this study. The quality of medical and surgical teaching in London and Paris during the first half of the nineteenth century was influenced by many factors, among which professional structure, the goal of the licensing authorities and the organisation of the provision of teaching had the greatest impact. These elements took medical education towards two different directions in both cities. In Paris, students were offered thorough training, with a strong leaning towards anatomical and clinical investigation. The goal of the ‘physician-surgeon’ created in the first years of the *École de Santé* was to discover the nature and immediate cause of the lesions discovered on the corpses and link them with the symptoms observed during the life of the patient. In London the shorter curriculum aimed to provide future general practitioners with all the necessary means to care for their patients. Benjamin Brodie addressing the students of Saint George’s Hospital in 1838 clearly delineated the goal of medical education: ‘medical and surgical treatment... is the real object which you have in view. I address you as future medical practitioners’.¹²⁵ The close association between surgeon-apothecaries and pharmacy prompted them to pay strong attention

¹²³ C. Lawrence, ‘Incommunicable Knowledge: Science, Technology and the Clinical Art in Britain, 1850-1914’, *Journal of Contemporary History* 20 (1985), 4, 504.

¹²⁴ Pelling, *Cholera, Fever and English medicine*, 153-5; W. D. Foster, ‘The Early History of Clinical Pathology in Great Britain’, *Medical History* 3 (1959), 176.

¹²⁵ B. C. Brodie, *An Introductory Discourse on the Studies required for the Medical Profession. Addressed to the Students of the Medical School of St George’s Hospital* (London, 1838), 5.

to therapeutics, a science which their French colleagues tended to neglect. Only a small minority of London students from various origins (hospital surgeons' apprentices, prospective physicians educated at the London University or the Scottish universities) enjoyed a more thorough instruction which enabled them to penetrate the elite of the profession and to venture into research.¹²⁶

The emphasis placed on specific aspects of medical instruction influenced both the organisation and the content of the education imparted to medical students. From the students' point of view, medical and surgical training often proved unsatisfactory and ill-adapted to future practice. To obtain the experience and knowledge which suited their needs, students had to look beyond the prescribed curriculum.

¹²⁶ The description of medical education in London does not allow us to draw conclusions on the training of physicians educated in England. After completing their classical and medical training at Oxford or Cambridge they found complementary instruction elsewhere. They designed their own schedule and it remains impossible to make any generalisation about their training. Interestingly, while more is known about the typical education of the elite of the medical profession in France, in England it is the education of the lower ranks of the profession which is easier to track.

4. DURING MEDICAL STUDIES: BEYOND THE CURRICULUM

What a life, full of emotion and interest, that of a medical student! Improvising fraternal associations around a dissecting table; travelling as a group on a botanic excursion; making the acquaintance of many fellow-pupils in the hospitals, at the patients' bedside and at the various classes during the day... Studying the character, the mind, the knowledge, the talent of the professors... Studying almost unconsciously the aptitudes, ambitions and future of numerous friends in the lecture-theatre and at the concours; contemplating the ever new revelations of observation and science: all this fills the long days and protects against the consuming fever that we call youth.¹

¹ Véron, *Mémoires d'un bourgeois de Paris*, 4.

The requirements established by the English licensing bodies and by the French government outlined the necessary elements which medical students had to fulfil to take their qualifying examinations, but only defined part of their overall education. Students were usually far from being the passive beneficiaries of available instruction and sought instead to obtain experience which would enable them to practise successfully. Roy Porter's remark about Georgian London, that there was 'more to education than its official forms', fully applied to both mid-nineteenth-century London and Paris.¹

Reforms suggested by students and by the larger medical community were only implemented very slowly, if at all. Students were therefore obliged to compensate for the imperfections of the available education by seeking other means of instruction and by reading extensively. Whenever requirements were malleable, like in England in particular, students avoided the lessons which did not suit their personal circumstances and ambitions. At the Paris Faculty of Medicine, where the curriculum was highly regulated, students only appeared to comply with their fixed schedule, effectively gaining instruction through other channels.

SATISFACTION AND COMPLAINTS OF STUDENTS

Students were mainly concerned with attaining adequate medical and surgical knowledge in order to gain the necessary diplomas. Unlike more experienced reformers, they did not have the authority—if they ever had the interest—to produce a full review of the entire system of medical education. However, they did not hesitate to raise their voices and their quills whenever the inadequacy and failures of medical education became blatant.² Their occasional complaints addressed practical questions and give an idea of what they expected in return for their fees.³

London students had a powerful ally in the surgeon Thomas Wakley, editor of *The Lancet*, who had embarked on his own crusade against the monopoly of the major hospital schools and

¹ R. Porter, 'Medical Lecturing in Georgian London', *British Journal for the History of science* 28 (1995), 1, 99.

² Complaints about defects logically overshadowed praise about advantages which, often taken for granted, were rarely the subject of comment.

³ See T. N. Bonner, 'Students and Teaching in the Clinical Era, 1770-1860', *Caduceus*, 10 (1994), 57-64.

the detrimental role of the corporations. Until the mid-1830s, with most school administrations still in infancy, London students were almost obliged to use *The Lancet* to obtain improvements when they failed to agree with a professor. Students did not hesitate to write to Wakley to express their frustration with the curriculum or with any professor who failed in his duty. They knew that he would invariably publish remarks which fuelled competition between medical schools. London professors were eager to preserve their reputation, as students could easily switch from one lecturer to another; a letter to *The Lancet* could thus prove effective in improving a short-term situation. In 1841, for example, a student at Guy's Hospital expressed gratitude to Wakley for publishing a letter which had successfully bestirred the authorities of the medical school.⁴

Complaints were far more rare in Paris, where students faced the monolithic Faculty system which was less likely to be easily improved. The Faculty paid a salary to the professors, who neither suffered financially from poor attendance nor gained from student enthusiasm; consequently, they probably paid little attention to complaints. Furthermore, the great majority of Parisian medical men embraced the philosophy adopted by the Faculty. No medical journal held a clear offensive position against the 'medical establishment' like *The Lancet* in London. Moreover, the politically charged accusations of students against several deeply monarchist—but otherwise talented—professors, like Jean Cruveilhier, discredited their recriminations against the instruction delivered by the Faculty.⁵

In Paris, Faculty students acted as a group when they sought to defend their rights. They would gather in the main amphitheatre and elect committees to negotiate with the dean or present petitions to the Parliament or the Minister of Public Instruction. In London, where students were scattered in different schools and did not face the same problems, joint action was more difficult to organise. However, measures which affected them all, like new regulations from the Society of Apothecaries or the College of Surgeons, sometimes fuelled a combined protest.

⁴ 'Guy's Hospital by a Hard-Working Medical Student', *The Lancet* (1840-41), ii, 350-1.

⁵ Corlieu, *Centenaire de la Faculté de Médecine*, 236.

In 1834, for example, students gathered at University College after the College of Surgeons brought in new requirements by which professors were to comment on the attendance of each pupil.⁶ The largest meeting of London medical students occurred in 1836 when more than one thousand pupils gathered at the Crown and Anchor tavern to demand that examinations at the Society of Apothecaries become public, following an altercation between a candidate and his examiners. A central association of medical students was even suggested but never came to life.⁷

THE VIEWS OF MEDICAL REFORMERS

The defects of medical instruction, highlighted by students, did not escape the attention of medical reformers. Motivated by their desire to overhaul the profession, they sought to alter the existing models of teaching to instil new practices and ideas.⁸ On both sides of the Channel, reformers sought to answer both the practical issues raised by students and the more global purpose assigned to medical and surgical instruction. Their arguments benefited from a clearer understanding of the requirements of practice, and a greater distance and objectivity, than those of medical students. The solutions that they offered in regard to education reflected their ideas on the reform of the profession. Through publications and political action, reformers addressed five main areas of contention: reform of the professional structure and improvement of standards; fair access to elite positions; abolition of geographical boundaries of practice;

⁶ 'University of London. Meeting of Medical Students', *The Lancet* (1834-35), i, 322-4; 326-7.

⁷ 'Great Meeting of the Medical Students of London at the Crown and Anchor Tavern on Monday, Jan. 18, 1836, to Petition Parliament to Effect an Alteration in the Examination of Candidates for Medical Licences and Degrees and to form a Central Student Association', *The Lancet* (1835-36), i, 667-80. In 1839 a similar society was again suggested to unite all London medical pupils, defend their rights, promote their interests and offer assistance, but Wakley expressed doubts as to its viability and indeed the project did not evolve further: 'Project of a Medical Students' Friendly and Scientific Association', *The Lancet* (1838-39), ii, 871.

⁸ Many reformers were involved in teaching and medical journalism, some even in politics (Wakley and Bouillaud, for example, were both members of Parliament). Although the majority of calls for reform came from individuals, reformers sometimes worked together to add more weight to their claims. In 1845, for example, French doctors gathered in Paris at the first congress of the profession and offered answers to a list of questions presented by the Government concerning the future of the profession: *Actes du Congrès médical de France, session de 1845, section de médecine* (Paris, 1846). In England, the first British Medical Association and the Provincial Medical and Surgical Association (which later also took the name of British Medical Association) provided a programme of reform; see I. Waddington, *The Medical Profession in the Industrial Revolution* (Dublin, 1984); P. W. J. Bartrip, *Themselves Writ Large: the British Medical Association 1832-1966* (London, 1996).

eradication of charlatanism and unqualified practice; and provision of adequate care for the entire population.⁹

French reformers were more moderate, reserving their criticisms for specific practical points. Louis Jean François Delasiauve, a Republican private teacher at the École pratique, was harsher than most when he wrote:

To the stranger's eye, the Paris medical school shines. It presents to the admiration of all splendid museums, large libraries, opulent laboratories, beautiful dissecting-rooms, numerous professorships and eminent lecturers. All this wealth, however, remains for a part sterile. The Faculty is, as a teaching institution, worthless. It is elsewhere, in the private courses, in solitary labour, that dedicated students gain an incomplete training. The others, without any check nor direction, acquire haphazardly the amount of knowledge strictly indispensable not to fail examinations which, although they are believed to be severe, establish an average level far inferior to what a better conceived system would produce.¹⁰

Criticisms in London took many forms, as the viewpoints on medical teaching varied greatly between men such as Thomas Wakley, who fronted the fight against the College of Surgeons and the London hospital schools' monopoly on education, John Kidd, the Regius Professor of Medicine in the University of Oxford, who advocated a 'substantial but temperate reform in the laws and regulations which affect the medical profession', and those members of the two London colleges who rejected any meaningful change.¹¹ Adrian Desmond has demonstrated that views on medical reform were linked to political opinions. The most advanced reformers, in particular, were influenced by political ideas ranging from Utilitarianism to the Whig Party, while the two royal colleges remained staunch supporters of the Tory Party.¹² Verbal hostility between the various protagonists of the medical profession culminated in physical violence when Wakley was expelled from the College of Surgeons by police officers on

⁹ In France the fight of reformers concentrated particularly on the abolition of the *officiat de santé*, the reform of the *écoles préparatoires*, the creation of public salaried doctors in the countryside (*médecins cantonnaux*), and the eradication of illegal practice. In England the efforts of reformers covered many more subjects: diminution of the excessive power of, and democratisation of the corporations (especially the two colleges), implementation of the Poor Laws, legal recognition of general practitioners (through the creation of a College of General Practitioners), end of nepotism in the London hospitals, effective licensing of practitioners and elimination of quackery.

¹⁰ Delasiauve, *De l'Enseignement clinique dans les hôpitaux, proposition développée et soutenue à la Société médicale du Panthéon* (Paris, 1858), 6.

¹¹ J. Kidd, *Observations on Medical Reform* (London and Oxford, 1841), 12.

¹² A. Desmond, *The Politics of Evolution: Morphology, Medicine and Reform in Radical London*. (Chicago, 1989).

8 march 1831.¹³ Clearly, the heterogeneity of the English medical profession—the many-headed monster, as Joseph Green called it—led to entrenched positions.¹⁴ According to Kidd, the disunity of medical reformers was the probable cause of Parliament’s indifference to medical reform.¹⁵

Various conflicting propositions claimed to solve the problems of medical instruction, focusing inevitably on an improved standard of education for surgeon-apothecaries.¹⁶ In practical terms, reformers, mainly concerned with the adequate preparation of students for everyday practice, attacked every aspect that did not meet this criterion. Clinical education, for example, was criticised for providing students with an environment not conducive to learning and for offering information of little use to general practitioners.¹⁷ Robert Graves claimed that although the French clinic was superior in many ways to the British, both equally failed to provide students with opportunities to learn the actual practice of the profession.¹⁸ Graves also regretted that hospital cases were generally selected for their complexity and originality and that, consequently, acute diseases were over-represented in comparison with chronic ones.¹⁹ Only in out-patient services, or during home visits to dispensary patients, could students witness in large numbers the chronic diseases and everyday ailments which would compose the majority of their cases as practitioners. Clinical instruction was further accused of failing to teach students enough about medicine. In both Paris and London, physicians and surgeons often visited the wards at the same time. Students were left to decide whether they would attend either the medical or the surgical practice and they frequently chose the latter over the former. Surgery, where affections

¹³ Waddington, *The Medical Profession*, 61-2.

¹⁴ J. H. Green, *The Touchstone of Medical Reform; in Three Letters addressed to Sir Robert Harry Inglis Bart., M.P.* (London, 1841), 42-3. Wakley became so irritated with the monopoly of the London schools that he suggested to ‘do away’ with lecturers altogether and wrote that every master should teach everything to his apprentices, an opinion which was widely rejected by his contemporaries: ‘Medical Education: Necessity of Attendance on Lectures’, 348-9.

¹⁵ Kidd, *Observations on Medical Reform*, 3.

¹⁶ Thomas Hodgkin, for example, regarded the existing system of medical education for general practitioners as ‘objectionable in nearly all its stages’: Hodgkin, *An Essay on Medical Education*, 6.

¹⁷ To diminish the crowds of students in the wards, Delasiauve suggested the creation of a clinical course in each of the great Parisian hospitals, instead of limiting teaching to the Hôtel-Dieu, Charité and Pitié hospitals: Delasiauve, *De l’Enseignement clinique*, 8.

¹⁸ Graves, ‘On Clinical Instruction’, 405.

¹⁹ *Ibid.*, 402.

were immediately visible to the novice's eyes, and where treatments obtained more obvious results, was more appealing to students.²⁰ Yet, in their future profession, most pupils would see many more medical than surgical cases, and that distribution needed to be reflected in the time they dedicated to each science.

Reformers also condemned the over-emphasis medical systems placed on therapeutics or anatomo-clinical research. Apprenticeship was criticised, in England, for diverting too much of the student's time to the basic elements of pharmacy and therapeutics, at the expense of a more thorough knowledge of medicine. Thomas Hodgkin argued that the years spent in indenture would be better employed in the study of a vital discipline such as general anatomy.²¹ Hodgkin was not alone in believing that dissections were a weak point of the London medical instruction. English reformers frequently highlighted the students' lack of anatomical experience, which would later hinder their confidence as surgeons.

In France, on the contrary, it was claimed that some students spent too much time in the dissecting-rooms in futile research and examinations which would prove of little use in their career.²² The medical journalist Edmond Langlebert condemned the contempt for therapeutics, claiming that the majority of hospital practitioners only seriously studied diagnosis and barely deigned to talk to the pupils about curative indications. In his view, this led students to neglect the cure, which was the most important part and the ultimate goal of their studies.²³

Reformers also claimed that some subjects were neglected by the medical schools. Each reformer focused on a particular discipline which was not taught properly, if at all. Although some fields were clearly fundamental to the work of general practitioners, such as therapeutics, clinical midwifery, hygiene, or mental diseases, others were more of a scientific or secondary than

²⁰ Holmes, *The Introductory Address*, 17.

²¹ Hodgkin, *An Essay on Medical Education*, 6.

²² Sacré claimed that young students, after being disgusted by anatomy at first, quickly became enthused by the discipline and dedicated all their time to it: Sacré, *Considérations sur l'étude et la pratique de la médecine* (Paris, 1834), 6.

²³ Langlebert, *Guide pratique*, 214. Delasiauve concurred to that opinion: Delasiauve, *De l'Organisation médicale*, 108.

of a practical interest.²⁴ In the 1820s, clinical midwifery was particularly neglected in both London and Paris. In the 1830s, however, it developed markedly in the French capital where, although restricted at La Maternité and the faculty clinical wards at the Hôpital des Cliniques, the attendance on women by medical students was common in private courses.²⁵ In London, however, it was still extremely frowned upon and teaching was consequently deficient.²⁶ Even as late as 1859 a medical student expanded upon the ‘evils of man-midwifery’.²⁷

In their efforts to improve the general standard of the profession, reformers argued that much good would be derived from a tighter control of the work of medical students at all stages in their studies. The liberty they enjoyed was seen as preventing adequate instruction. Many English reformers advocated frequent examinations over the course of the year to oblige pupils to apply themselves more regularly to their studies, instead of cramming at the last minute. In 1834, for example, John Ridout, a member of the Society of Apothecaries’ Court of Examiners, recommended that schools introduce frequent examinations to encourage diligence.²⁸ The schools gradually adopted these regular examinations, but they were not always mandatory, and idle students carefully avoided them.²⁹

²⁴ In France, for example, Beaumont insisted on hygiene and Caffin on zoology, while Dubois d’Amiens advocated pathological chemistry and Delasiauve history of medicine: Beaumont, *Réflexions sur les études du médecin*, 11 ; J. F. Caffin, *Aux Chambres et à Monseigneur le Ministre de l’Instruction publique, à tous les médecins. Observations sur la réorganisation de l’enseignement de la médecine* (Paris, 1844), 50; F. Dubois d’Amiens, *Traité des études médicales ou de la manière d’étudier et d’enseigner la médecine* (Paris, 1838), 423; Delasiauve, *De l’Organisation médicale*, 100. In England, John Webster claimed that students were unable to study clinical psychiatry, and suggested to open the wards of Bethlem hospital for that purpose: J. Webster, *Observations on the Admission of Medical Pupils to the Wards of Bethlem Hospital, for the Purpose of Studying Mental Diseases* (London, 1842).

²⁵ In the early 1830s the Hôpital des Cliniques adjacent to the École pratique was reconstructed, and for several years no clinical midwifery was dispensed to students at the Faculty. Even after that date only fourth-year students were allowed to attend clinical midwifery, in a unique obstetrics ward. Students were therefore obliged to resort to private teaching. The Faculty preferred to concentrate on the training of female midwives: Langlebert, *Guide pratique*, 228-9. See also U. Trélat, *De la Constitution du corps des médecins et de l’enseignement médical; des réformes qu’elle devrait subir dans l’intérêt de la science et de la morale publique; examen des questions adressées à cet effet par Son Excellence le Ministre de l’Intérieur* (Paris, 1828), 65. Trélat, a medical reformer, advocated an additional examination on the theory and practice of midwifery.

²⁶ Loudon, *Medical Care*, 91-3. Medical and political authorities on the Continent had recognised the need for trained midwives well before those in England. As a result, midwifery was more institutionalised in France than in England: H. Marland (ed.), *The Art of Midwifery: Early Modern Midwives in Europe* (London, 1993), 3-5.

²⁷ J. Browne, *The Accoucheur. A Letter to the Rev. Mr Tattershall ... on the Evils of Man-midwifery. By a Student* (London, 1859).

²⁸ RSCME, vol. 3, 36.

²⁹ E. Canton, *An Introductory Address Delivered at the Charing Cross Hospital Medical College, October 1, 1857* (London, 1857), 26.

Parisian reformers were also aware that the sheer number of students was a major obstacle to the correct functioning of the Faculty. Some suggested decentralising medical teaching and improving the distribution of students throughout the country by transforming some *écoles préparatoires* into faculties.³⁰

Propositions presented by reformers were equally unsuccessful on both sides of the Channel. Improvements were only partial and came about too late to satisfy their promoters. In London, some progress was made when the Society of Apothecaries strengthened its curriculum in the 1820s and 1830s. In the 1830s, the creation of London University also contributed to raising teaching standards in the capital and the 1832 Anatomy Act brought legal support to anatomical teaching. But the divided reformers could not vanquish the conflicting forces at work. The institutional separation between the schools acted against a far-reaching reform of instruction, each school slowly introducing its own new improvements. The efforts to reform the English medical profession finally bore fruit in 1858, after fifteen unsuccessful bills, when the Medical Act was passed. Like the 1815 Apothecaries' Act, the 1858 Medical Act was a compromise and delivered little of what reformers had hoped for. Although the Act somewhat unified the profession through the Medical Register, it did not bring any major change to medical education, as neither a uniform mode of training all over Britain nor a state-controlled qualifying examination had been included in the Act.

In France, the reform movement gathered momentum in 1845-1847 but the Revolution of February 1848 halted the debate on a bill for the reorganisation of the profession, whose structure, consequently, remained unchanged until 1892. The only significant reform affected the qualification of *officiers de santé* in 1854, when local juries were abolished and examinations were given entirely to the schools. The Paris Faculty continued to improve its curriculum gradually, introducing more laboratories and practical courses in the 1860s and 1870s.

³⁰ Sénac, *Considérations générales*.

SHAPING ONE'S OWN INSTRUCTION

Despite its inherent defects most students fulfilled the requirements of the curriculum without challenging it, ensuring that they obtained a level of instruction matching the school's expectations. However, some pupils had precise ideas about what was actually useful for their education, and actively sought to remedy the shortcomings of their prescribed training. In the absence of clear rules and advice on how to pursue medical studies, students evaluated their needs and the courses available to define their own instruction.³¹

Both the Paris and London models of education allowed students to determine, to a certain degree, their own training and to seek complementary means of instruction. Unable to control attendance efficiently, school administrations were obliged to tolerate students organising their time as they wished and shaping their own instruction, as long as they conformed to the mandatory elements set out by the regulating authorities. In Paris, for example, the entrance tickets to the amphitheatre lectures were seen by students as an optional favour, rather than as an obligation.³²

Medical and surgical instruction was provided by various sources, which enabled students to decide which courses they would take and which ones they would ignore or replace. Paul Broca is a perfect example of a talented student who would not settle for the specified curriculum when he thought that he would gain more by shaping his own education:

From one to two p.m. our prosector gives an anatomy lesson on a corpse, and the *École pratique* closes at four. So I only have three hours left for dissections. If I followed a course at the Faculty, I would lose another hour and I would not be doing enough anatomy.... [I study] external pathology and clinic[al medicine] at the hospital where I attend Blandin's clinical lesson, which perfectly replaces and is even better than a course at the Faculty because, after the visit, he gives a lecture on a disease and cites the patients that we have seen in the wards during the day.³³

³¹ In 1800, the dean of the Paris school, Michel Thouret, had suggested the creation of a chair of medical methodology, on the model of those of German universities, so that students would be given advice on how to proceed with their studies: Dubois d'Amiens, *Traité des études médicales*, ii; J. V. F. Vaidy, *Plan d'études médicales à l'usage des aspirans au grade de docteur en médecine, de docteur en chirurgie et d'officier de santé* (Paris, 1816), 83.

³² Delasiauve, *De l'Organisation médicale*, 97.

³³ Broca, *Correspondance*, vol. 1, 114.

Later in his studies, he found it necessary to modify his normal schedule again to prepare for the *internat* examination. Confident in his ability to study without the help of a professor, he even questioned the benefit of courses as an adequate pedagogical tool:

Lectures, at this point in my studies, are the most secondary thing in the world, a way of distracting oneself for an hour from the serious studies one does in his room. Now that I have a certain understanding of the principal questions, now that I am able to understand any medical book, courses do not have the importance they had in the early years. In order to have the smallest chance of success at the *internat* examination, I need to deepen my knowledge of certain questions, which I will choose at random. Yet, during a lecture, we only study the questions superficially. The sole purpose of courses is to create an atmosphere conducive to learning.³⁴

Another example is provided in London by James Paget who, a few years before Broca, also disregarded lectures, preferring to learn from books.³⁵ Lectures were often criticised for being deficient in experimentation, case-studies, and illustrations, and for not providing enough useful information.³⁶ Poor discipline in the theatre also encouraged diligent students to seek a more serious working environment elsewhere. According to the writer Edward Berdoe, ‘it was not the idle and dissipated who neglected [lectures]—too often these mustered in force for the sake of the fun. It was the best men who felt that their own rooms and their books could better assist their progress’.³⁷

Whereas the organisation of Parisian medical instruction was tightly regulated, the London system was largely flexible. Students were entirely at liberty to attend the courses of their choice. Theoretical and practical lessons were provided by several hospital schools and smaller private schools, and clinical teaching was offered by dispensaries as well as hospitals. Since each course could be paid for individually, a student could attend some of his classes at one school, and the rest at another one, enabling him to adapt his instruction to his specific needs or interests. If, for example, he wanted thorough training in morbid anatomy, he could attend the courses of the

³⁴ Ibid., 210.

³⁵ S. Paget, *Memoirs and Letters of Sir James Paget* (London, 1901), 52.

³⁶ See J. H. Bennett, *Observations on Medical Education* (Edinburgh, 1867), 11.

³⁷ Berdoe, *St Bernard's*, 53.

best specialist of that discipline and choose the other lessons so that they would fit with the rest of his schedule.

The summer session was the perfect period for complementing one's instruction, widening the scope of studies or catching up on missed classes, as it provided more free time than the busy winter session. Students could spend long hours at the library, visit museums, use the school's laboratory, study books at home or take additional lecture courses.³⁸ London students, like their French counterparts, preferred to fill their timetable with practical courses rather than lectures. John Edward Morgan, a professor at the Manchester medical school, recalled that when he was studying medicine, he frequently heard students 'lamenting the hard necessity which constrained them to attend a lecture when their valuable time might so much more profitably have been spent in the laboratory or dissecting room.'³⁹ Oxford and Cambridge students, in contrast, gave a much greater share of their time to books. They came to London to complete their education and were entirely free to build their education as they wished. A typical day for Henry Acland, for example, included only two or three courses and plenty of book study at home.⁴⁰

Private teaching and complementary courses

One of the most obvious ways to remedy the limitations of the teaching available at a particular school was to resort to private courses. Private teaching flourished at the end of the eighteenth century in both Paris and London, when surgeons and physicians started to give clinical courses in hospital wards and anatomical demonstrations and theoretical lectures in private theatres.

³⁸ That time could also be usefully employed in socialising with other students, and expanding one's knowledge with their help. On student socialisation, see page 208; on study groups, see page 160.

³⁹ Morgan, *Opening Address*, 6.

⁴⁰ Atlay, *Sir Henry Wentworth Acland*, 85-6.

Qualification as a medical doctor in Paris required matriculation at the Faculty and attendance at the courses dispensed by the official professors in the order prescribed by the Council of Public Instruction. However, private courses also existed in parallel with the Faculty instruction. When the Government decided to close the private anatomy theatres in 1813 it acknowledged that the teaching they provided was useful and ruled that private anatomy lecturers would be allowed to buy corpses from the school and teach in one of the *École pratique*'s dissecting-rooms. The lecture-theatres of the *École pratique* were also open to private professors who taught disciplines that were not offered at the Faculty, such as ophthalmology and the diseases of women and children. Some private professors continued to teach at their homes and in private theatres in the Latin Quarter, but ironically, most of the private instruction available in Paris was dispensed right inside the Faculty of Medicine. Faculty professors, whose positions and salaries were secure, were not directly threatened by the success of private lecturers. Furthermore, only some of these courses were directly in competition with theirs. After the creation of the *agrégation* in 1823, most private courses were offered by the young assistant professors, the *agrégés*, who were required to teach for free during a certain number of hours at the *École pratique*.⁴¹ Competition was intense between prospective professors who were eager to build a reputation before contending for a chair. These courses were often of better quality and more practical than those given by the Faculty teachers, and allowed some interaction between students and lecturers.⁴² Private lessons also corresponded better to students' expectations, as Edmond Langlebert pointed out in one of his guides:

Some professors only encompass in their lessons specific and restricted viewpoints of a science which should be treated in its entirety... This means that the teaching, probably very interesting for a scientist, does not benefit the pupils who need practical, solid and complete knowledge rather than high and transcending consideration on one or the other part of medical science. Fortunately, besides the official teaching of the Faculty, a more humble but altogether more necessary private teaching exists.⁴³

⁴¹ The *agrégation* aimed at recruiting the future professors through a competitive examination. Until 1830, only the *agrégés* were allowed to compete for the vacant chairs at the Faculty.

⁴² Delasiauve, *De l'Organisation médicale*, 20.

⁴³ Langlebert, *Guide pratique*, 29.

Parisian students had a large choice of courses and professors at their disposal. In 1853, for example, Henry Meding listed 89 different private courses in Paris, of which approximately two-thirds were delivered at the *École pratique* in the evening.⁴⁴ Originally, the free courses offered at the *École pratique* were available only to the school's pupils. But gradually, as the *agrégés* counted more on a large audience than on the product of these lessons to further their careers, all Faculty pupils were allowed to attend.⁴⁵

In London, no such divide existed between mandatory courses required by the state and private instruction. For any course required by the curriculum students could enrol with the professor of their choice and, if unsatisfied, could discontinue that course and seek another one. To expand their knowledge, they could also attend lessons in disciplines not required by the curriculum. Although the standards set up by the Society of Apothecaries were designed to ensure that all apothecaries could practise medicine safely, they were far from comprehensive. The London hospitals and the private schools therefore provided many complementary courses. They responded to the demand from a varied audience, which included students from English and Scottish universities, as well as the more numerous apothecaries' apprentices and surgical pupils. To attract students, hospitals offered a range of specialties (such as comparative anatomy, zoology, diseases of women and children, and dentistry) in addition to the core courses. Even the smaller teaching ventures and the dispensaries offered instruction which appealed to senior students as well as established practitioners. London had no shortage of young medical men who offered their services as private teachers, relying on their reputation to enhance their chances of securing a hospital position. To establish themselves within the medical community, they sought exposure via the medical press and posted their availability at the hospitals.

⁴⁴ Meding, *Bibliothèque du Paris médical*, 353-5.

⁴⁵ The consequence of this measure for the *École pratique* was a dramatic decrease in the recruitment of pupils. Except for the free access to corpses in the dissecting-room, the only advantage left in taking the competitive examination was the title of pupil of the *École pratique*, which nevertheless, could not match the reputation brought by that of *externe* or *interne*.

London medical students also attended courses from establishments that did not hold defined roles in medical education, such as the Royal Institution which delivered highly sought-after courses in chemistry and physics. Similarly, Parisian students did not limit themselves to official and private courses, and attended classes at other public institutions: zoology, comparative anatomy and botany at the Muséum d'Histoire naturelle, physiology and pathology at the Collège de France, physical sciences and chemistry at the Faculty of Sciences, and military surgery at the Val-de-Grâce military school.

Formal and informal study groups

The sheer amount of information students needed to acquire during their studies encouraged them to take advantage of the knowledge of their colleagues. Unlike solitary revision, collaboration within formal and informal groups enabled and obliged pupils to remain focused on their work. Committing themselves to a common objective and a tight schedule prevented them from slacking off in the face of difficulties. Furthermore, comparing knowledge and judging how other candidates answered questions proved useful in improving one's style and rhetoric.

Paul Broca's correspondence reveals numerous examples of collaboration between students. During his first year, Broca studied with one of his friends, Faure, sharing texts and testing each other during dissections.⁴⁶ For the *externat* examination, collaboration became more serious and efficient as Broca joined a group of six students who gathered every Saturday. They organised the necessary revisions so that, at each meeting, a group member gave a presentation and answered the audience's questions. For the *internat*, the same group resumed its work at an increased rhythm and even obtained the free help of a young doctor, Martin-Magron, who was training for the *agrégation* examination and was willing to test his capacities to master all subjects.⁴⁷

⁴⁶ Broca, *Correspondance*, vol. 1, 114.

⁴⁷ A group of five or six was a workable arrangement, allowing each member to be responsible for one night's presentation per week: *Ibid.*, vol. 1, 221.

The examples of cooperation between students are more frequent in Paris than in London. Despite their competitive nature, the difficult examinations prompted Parisian students to help each other. Furthermore, during their long years of studies students were able to forge lasting friendships and the accommodation arrangements meant that they lived close enough to each other to form and maintain study groups. French students often resorted to mutual instruction on the recommendation of several private teachers. At each level, pupils were expected to instruct their younger fellows under the supervision of the teacher. They gained much by explaining to others, in simple language, what they had understood of the lesson.⁴⁸

In Paris, collaboration emerged naturally in the months preceding the Faculty examinations in July, and the *internat* and *externat* competitions in November.⁴⁹ In London, however, except for the University of London MB, students were free to sit qualifying examinations when they wanted. Although this implied a more lonely course of revision, some students were eager to benefit from cooperation. In 1824, a practitioner wrote to *The Lancet* to advise students to form a society ‘to assist each other in every possible way, in the acquisition of medical knowledge in its various departments.’ He suggested an ambitious plan whereby the society would possess its own museum, lectures, and laboratory.⁵⁰ However, there is no evidence that such a society was ever created. From the individual student’s perspective, it was easier to employ the services of an established grinder than to spend time building partnerships with fellow pupils.⁵¹

⁴⁸ These theories were put into practice, for example, by Jean-Baptiste Beullac, who ran a small private school in the 1820s: T. Beullac, *Méthode d’enseignement mutuel, appliquée à l’étude des principes élémentaires de la médecine* (Paris, 1820). In Dublin, Joseph O’Ferrall also advocated mutual instruction: J. M. O’Ferrall, *On Hospital Instruction: an Introductory Address to the Students at St Vincent’s Hospital on November 4th, 1858* (Dublin, 1859), 5.

⁴⁹ Only the doctoral thesis could be presented at any time during the year.

⁵⁰ ‘To the Editor by an Old Student’, *The Lancet* (1824), iv, 333-7.

⁵¹ See page 246.

Student learned societies

Students could collaborate more formally by contributing to a learned society. The major professional societies like the Royal Society, the Medical Society of London, the Académie de Médecine and the Société de Chirurgie did not recruit unqualified practitioners. However, students possessed enough knowledge and experience, towards the end of their studies, to present their own observations and debate with their peers. Many student societies were therefore created by advanced pupils wishing to gain more from their daily work and to share their ideas and research with others.

In London, student societies appeared as early as the late eighteenth century at the Middlesex, Guy's and St Bartholomew's hospitals. By the 1830s most hospital schools possessed their own society dedicated to clinical and pathological pursuits.⁵² Similar circles—albeit short-lived—also appeared in Paris at the turn of the nineteenth century: the Société d'Instruction médicale (1799-1820) and the Société anatomique (1803-1809).⁵³ They reappeared when the Société anatomique was recreated in 1826 and the Société d'Observation médicale was instituted in 1832.⁵⁴

In Paris, student societies were linked by their members, mainly third- and fourth-year pupils. The societies developed around specialties (clinical medicine for the Société d'Instruction médicale, morbid anatomy for the Société anatomique, quantitative medicine for the Société

⁵² Middlesex Hospital Medical Society (1774), Guy's Hospital's Physical Society (1775), St Bartholomew's Hospital's Medical and Philosophical Society (1795; re-founded as Abernethian Society in 1832), Medical Society of University College (1828), Hunterian Society of St George's Hospital Medical School (1832), King's College Hospital's Listerian Society (1833), St Thomas's Hospital's Medical and Physical Society (1836): A. B. Shaw, 'The Oldest Medical Societies in Great Britain', *Medical History*, 12 (1968), 234; Bellot, *University College London*, 181. Charing Cross and the Westminster hospitals also possessed their societies: Wright, *Medical Students of the Period*, 113. In 1968, A. B. Shaw regretted that although 'many of the early medical societies were student ones' British student societies were neglected and sometimes rejected from lists of medical societies. Societies also existed at provincial medical schools. See for example J. Dickinson, *On Medical Education: An Introductory Lecture delivered at the Liverpool Infirmary School of Medicine at the Opening of the Medical Session, 1847-1848* (London, 1848), 23.

⁵³ P. Huard and M. J. Imbault-Huart, 'Les Sociétés parisiennes d'étudiants en médecine au début du XIX^e siècle', in *Actes du 95^e Congrès des sociétés savantes, Reims, 1970*, 3 vol. (Paris, 1975), 2, 229-38. Among the seven societies mentioned by Huard and Imbault-Huart, only the Société d'Instruction médicale and the Société anatomique can be properly qualified as student societies. Although the others included some students, they were mainly composed of established practitioners.

⁵⁴ P. Astruc, 'Le Centenaire de la médecine d'observation', *Progrès médical, supplément illustré*, 9 (1932), 10, 73-9; 11, 81-7; Palluault, 'La Société anatomique'.

d'Observation médicale), allowing students to belong to more than one organisation. In London, however, each society existed within the limits of its hospital, and memberships rarely overlapped. To increase interaction, the London student societies sought to forge closer links with one another. Following the model of the Medical Society of London they created a union between the societies of the various hospitals. The 'Junior Medical Society of London' included the societies of Charing Cross, Guy's, King's College, St George's, St Thomas's, University College and Westminster hospitals, and met every third Tuesday at each medical school in turn.⁵⁵

Student meetings were based on the model provided by societies of practitioners. Contributions took several forms: reading of observations, oral presentations or simple remarks during debate. At the Société anatomique, each presentation was supposed to include the exhibition of a specimen and a paper to be published in the bulletin, whereas the sessions of the Medical Society at University College involved more readings and fewer anatomical examinations, which reflects the availability of body parts.⁵⁶ Societies came alive during debates, when members jostled with words and ideas. These associations then truly fulfilled their purpose by allowing students to share experience, knowledge, practices and treatments with their peers. Interaction created a feeling of equality, especially when some more senior members of the profession were present.

The different emphasis on anatomico-clinical investigation or treatment which is a characteristic feature of the Paris and London hospitals, logically influenced the discussions of the learned societies. Susan Lawrence argues that around 1815 in London, 'despite the undoubted interest in scientific work, the societies did not actively encourage medical research beyond showing a willingness to hear and discuss what the members presented. The

⁵⁵ Wright, *Medical Students of the Period*, 113.

⁵⁶ *Ibid.*

complexities of practice took precedence over questions of medical or scientific theory.⁵⁷ The same cannot be said of the Société anatomique which focused on morbid anatomy and dedicated its entire time to clinical and pathological research. However, its monthly bulletins, regarded as the best compendium of morbid anatomy cases available, rarely mentioned treatments.

Although these societies were all ‘desirous of improvement in medical science’, as the set of laws of Guy’s Hospital Physical Society stated in 1775, each one understood its role differently.⁵⁸ The Medical Society of University College was conceived more like a gentleman’s club or a university debating society, with food and drinks being served in the cosy setting of the board-room.⁵⁹ In contrast, the Société anatomique met in a room above the Dupuytren museum and chose several times to sacrifice the comfort of its members to the expansion of its publications.⁶⁰

These learned societies clearly appealed to a certain elite of advanced students, who were ready to make an extra effort of time, financial expense and work in order to attend the meetings, and who equally expected to benefit from them. A contribution was a very fruitful way to train for the upcoming oral examinations and sometimes offered prospects of publication. *Internes* and *externes* in Paris, and dressers, clerks, surgeons’ apprentices and physicians’ pupils in London, composed the great majority of these societies. Pupils with hospital appointments were key members because they were able to provide abundant observations. Moreover, only they had enough knowledge, experience and time on their hands to produce interesting cases.⁶¹ Both the Société anatomique and Guy’s Physical Society formalised their expectations from dressers and

⁵⁷ S. C. Lawrence, “‘Desirous of Improvements in Medicine’: Pupils and Practitioners in the Medical Societies at Guy’s and St Bartholomew’s Hospitals, 1795-1815”, *Bulletin of the History of Medicine*, 59 (1985), 100.

⁵⁸ Lawrence, ‘Desirous of Improvement’, 89.

⁵⁹ Wright wrote that ‘some make the most of their half-guinea subscription by consuming an amount of coffee and cake which seems likely to produce nightmare’: Wright, *Medical Students of the Period*, 110.

⁶⁰ In 1838 and 1843 the members debated on improvements to make to the meeting-room more comfortable and solemn. But the available funds were used for the bulletin and the purchase of new scalpels instead. Pathological specimen were routinely presented and dissected during the sessions, which did not make the meetings suitable for the consumption of drinks and food.

⁶¹ For example, 77.3 % of the candidates to the membership of the Société anatomique were *internes* between 1826-1873: Palluault, ‘La Société anatomique’, 105.

internes. At Guy's the 'dresser for the week' was 'requested to furnish whatever may fall under his observation interesting the society'⁶² while in Paris the *internes* belonging to the Société anatomique were distributed into committees which reported on the week's cases in each hospital.⁶³

The majority of these societies were therefore composed of students who had already set their sights on hospital positions, and others who were testing their own talent. During their active membership they were able to forge strong bonds of friendship and respect with fellow students and influential practitioners, which could later prove helpful when applying for positions. Even those who left for the provinces kept the title of corresponding member, which announced them as men of science and could suitably impress their clientele.

Some members continued attending the meetings after they graduated and membership was therefore rarely limited to students. It often included established practitioners who, while being outnumbered by students, took a very active part in the society. Susan Lawrence has shown that house surgeons and physicians as well as outside practitioners played a role in Guy's Physical Society and St Bartholomew's Medical and Philosophical Society. Similarly, Parisian societies included young *agrégés* and hospital practitioners, who had joined the society as students and remained after gaining their doctorate.

Like most learned societies, student organisations drew heavily on a handful of dedicated members who sustained the societies' scientific achievements and guaranteed their very survival. Such members volunteered for the key positions available in the executive committee, which although attractive for ambitious young men desirous to shine in front of their junior and senior colleagues, implied extra work and responsibilities. The administrative positions (secretary, treasurer, archivist, etc.) were often devolved to students, but the post of President was a more delicate issue. Robert Temple Wright, who belonged to the student society at University College,

⁶² Lawrence, 'Desirous of Improvement', 98.

⁶³ This rule was established in 1804 when few members were *internes*. After 1826 there was no need for such a request because almost all members had equally good access to the wards: Palluault, 'La Société anatomique', 125.

felt that only a graduate could muster enough authority to keep the members from forgetting their duties to the society.⁶⁴ At various periods, the Société anatomique owed its survival only to the stable presence of its President, Professor Cruveilhier, who for more than forty years directed the debates in an unobtrusive manner. The presence of more senior members of the medical community was desirable because it brought depth and experience to the discussions. But by relinquishing too much power to practitioners, the students risked losing control over their society.⁶⁵

The longevity of these societies was threatened by their very nature as student organisations. Membership turnover was high and each year the societies lost many of their most active senior students when they graduated. The societies were therefore caught in the perpetual dilemma of broadening recruitment enough to ensure survival while not jeopardising the standard of discussions. Membership was controlled—though not always strictly—to ensure that prospective members deserved to be admitted. Candidates had to be introduced by members, who guaranteed their knowledge and dedication, or were elected after the presentation of an observation. But even a larger membership did not solve all the problems. Many societies suffered from poor attendance, which hindered the proper running of meetings. Despite the introduction of attendance books, members were caught up in their studies and hospital obligations, and often missed a meeting, or were late in delivering an observation. Financially, these societies were often in trouble, as students struggled to pay the subscription on time.⁶⁶ The existence of these student societies thus balanced on the fine line between accepting the scientific help and stable backing of established practitioners, and retaining the focus on student

⁶⁴ Wright, *Medical Students of the Period*, 110.

⁶⁵ In 1840, the committee of the Société anatomique objected to the election of Auguste Bérard to the post of Vice-President. An *agrégé* and hospital physician, Bérard would have brought much to the debates. But the students who composed the majority of the executive committee were afraid of losing key positions to practitioners: Palluault, 'La Société anatomique', 59.

⁶⁶ During the economic crisis of 1847, the Société anatomique's subscriptions fell dramatically. The treasurer, himself a student, understood the special circumstances and refused to exclude the debtors as required by the regulations: *ibid.*, 65.

contributions. The success of the Société anatomique, for example, was partly due to its very gradual transition from a student society into a specialty society.⁶⁷

Libraries and Museums

Despite a more practical approach to the teaching of medicine than in the previous centuries, books still played a primary role in the acquisition of knowledge. Students purchased medical manuals in specialised bookshops established in close proximity to the schools. However, the price of these works, even second-hand copies, put them beyond the reach of many.⁶⁸ It was thus indispensable for medical schools to possess libraries where students could refer regularly to the works of ancient and modern authors.

As teaching expanded to cover all aspects of the curriculum the London medical schools gradually increased their libraries' stocks. In the 1840s, they advertised their libraries as a fundamental educational tool in *The Lancet* alongside courses and hospital rounds. The Paris École de Santé inherited the collections of the former College of Surgery and Faculty of Medicine, and pursued a policy of acquisition. Like in most London hospital schools, access was included in the tuition fees, but while London libraries were open for most of the day, students could only access the Paris Faculty library from 11 to 3, when they were busy with courses.⁶⁹ In the late 1840s, the administration finally yielded to persistent student complaints and opened it as well in the evening from 7 to 10.⁷⁰

Although libraries possessed many old books, they did not usually own many copies of the fundamental manuals indispensable to the daily study of medicine.⁷¹ Furthermore, few libraries

⁶⁷ The Société anatomique is still active today although it is now divided between the Société anatomique proper and the Société française de Pathologie.

⁶⁸ In 1818, for example, a medical student, Jean Victor Audouin paid 75 Francs for Richerand's *Nosographie* and *Physiologie*, Bichat's *Anatomie générale*, and Boyer's *Chirurgie*. Théodoridès, 'Jean Victor Audouin', 49. The cost of these four works represented a semester's worth of Faculty fees.

⁶⁹ London Hospital at Mile End charged students one guinea for the use of the library: *The Lancet* (1836-37), i, 9; L. Domange-Hubert, *Almanach général de médecine pour la ville de Paris* (Paris, 1845), 56; Delasiauve, *De l'Organisation médicale*, 27.

⁷⁰ Meding, *Bibliothèque du Paris médical*, 36.

⁷¹ Langlebert, *Guide pratique*, 248.

allowed students to borrow books for several days.⁷² Students were therefore obliged to subscribe to private libraries, which stocked works that were primarily intended for their use, such as medical manuals and journals. An example of these establishments was the ‘Medical, Chemical and Philosophical Library’ at 55 Great Windmill Street, where works could be ‘obtained by the single volume, month, quarter or year’.⁷³ The monthly subscription to one of the several *cabinets de lecture* established in the Paris Latin Quarter cost 3 Francs around 1848, or 8 Francs if students wished to borrow books.⁷⁴

Like libraries, museums represented both a material support for instruction and a distraction. They were essential in helping students visualise elements that they could otherwise only see as drawings and waxes, and in enabling them to observe examples of the theoretical cases mentioned during lectures. London medical schools began their collections by gathering anatomical specimens, gradually expanding them to include mineralogy, botany, anatomy, comparative anatomy, morbid anatomy and zoology.⁷⁵ The Paris École de Santé inherited the anatomical collections of the former teaching institutions. At the turn of the century, its museum included anatomical specimens and waxes, surgical instruments and samples of medicines. In 1835, the Faculty opened a museum of morbid anatomy with money bequeathed by the surgeon Guillaume Dupuytren. The faculty secured the expansion of the collections by requiring that prosectors and anatomy assistants give a certain number of specimens to the museum every year. A gentlemen’s agreement with the Société anatomique also provided the museum with quality

⁷² Among those libraries which allowed students to borrow books was St Bartholomew’s Hospital library: F. J. Farre, *On Self-Culture and the Principles to be Observed in the Study of Medicine: an Introductory Lecture Delivered at St Bartholomew’s Hospital on Monday, Oct. 1, 1849* (London, 1849), 36.

⁷³ This library was ideally situated near the Great Windmill School: ‘Medical and Physical Intelligence’, 248.

⁷⁴ J. Vallès, *Le Bachelier* (1st edn., 1881; Paris, 1970), 68. Vallès’s favourite *cabinet de lecture* was located on Passage du Pont-Neuf.

⁷⁵ In 1836, for example, King’s College medical school advertised its ‘Museums of Materia medica, Botany, Geology and Mineralogy’, to which students had daily access’: *The Lancet* (1836-37), i, 14.

specimen and wax models.⁷⁶ In 1845, Mateo Orfila, the dean of the Faculty of Medicine, opened and contributed financially to a museum of comparative anatomy.⁷⁷

Henry Meding, a German physician, praised the accessibility of the Paris Faculty museum, which was ‘not buried and inaccessible like most English and German museums’.⁷⁸ However, accessibility was not a measure of quality. According to Wiblin, London possessed far better anatomical museums than Paris in the mid-1830s, although many of these were private establishments where students were not automatically admitted.⁷⁹ Moreover, access to the London schools’ museums was limited to the students of those schools.

RELATIONSHIPS WITH PROFESSORS

Those students who left testimonies about their medical education often recorded their impressions of the different styles and teaching methods of their professors. Most descriptions endeavoured to present a balanced image. Shephard Taylor at King’s College, for example, appears to have entertained a rather good opinion of his teachers. He described the physiology lecturer, Lionel Beale, as a man of great scientific ability and indefatigable energy, who nevertheless was not very popular with students owing to his irritable temper and ‘finical way of lecturing’.⁸⁰ Louis Véron, similarly, wrote that Dupuytren inspired respect and apprehension but showed an almost tender sensitivity at the bedside.⁸¹ Paul Broca’s impressions of the Paris Faculty professors were more clear-cut. In his opinion, Breschet’s anatomy course was weak while Blandin delivered ‘the best clinical surgery lessons in Paris’.⁸²

⁷⁶ The Faculty of Medicine accepted that the Société anatomique hold its meetings in a room above the museum in return for the specimens presented by its candidates.

⁷⁷ Meding, *Bibliothèque du Paris médical*, 35.

⁷⁸ *Ibid.*, 35.

⁷⁹ Wiblin, *The Students’ Guide*, 57-8. Victor Stoeber, a Strasbourg professor, expressed a similar opinion, arguing that except the Strasbourg anatomical museum, no French collection could be compared to those of the London hospitals: V. Stoeber, *De l’Organisation médicale en France* (Paris, 1830), 26.

⁸⁰ Taylor, *The Diary of a Medical Student*, 2.

⁸¹ Véron, *Mémoires d’un bourgeois de Paris*, 328.

⁸² Broca, *Correspondance*, vol. 1, 110.

The quality of the instruction received by medical students was necessarily influenced by the relationship that they were able to forge with their professors. Deprived of the close support of family and friends, many students sought advice from a trustworthy authority. If professors chose to make themselves available to dispense guidance on training and offer assistance on personal matters, their pupils' education was vastly enriched. For students, these benefits existed both in the short and long term. Developing a close relationship with professors greatly influenced the outcome of their studies, as professors sometimes shared some of their research with their close pupils and supported their appointment to junior hospital positions. Professors could also help them shape their future career with recommendations and introductions to patients. The numerous accounts of favouritism and nepotism both in Paris and London are a clue to the power of the protection given by professors to some of their students. However, on either side of the Channel, these relationships were difficult to forge for average students.

Traditionally, Parisian professors maintained a formal distance from their students. Lectures were solemnly delivered in the *grand amphithéâtre*, where the sheer number of students made it quite impossible for a professor to develop individual relationships. René Charbonnier, a Paris graduate, wrote in 1829 that, during his studies, he had 'often regretted that communications were so rare between the professor and the students that they were almost strangers to each other'.⁸³ First-year and second-year students, unable to find help from lecturers, were obliged to turn to older fellow-pupils for advice.

In the more intimate setting of a London lecture theatre professors were sometimes able to create and sustain a bond with their pupils. Traditionally, the financial contract between pupils and teachers in England created a more personal relationship reminiscent of the apprenticeship

⁸³ R. Charbonnier, *Considérations générales sur l'état actuel de la médecine et sur les moyens d'apporter dans l'enseignement ainsi que dans l'exercice de cet art les changements nécessités par les progrès des connaissances* (Paris, 1829), 102. Jean-Paul Tessier, another former Paris student, agreed: 'In a Faculty, like that of Paris, there are few contacts between master and pupil': J.-P. Tessier, *De l'Enseignement de la médecine en France* (Paris, 1854), 8.

regime, where pupils had a strong association with their masters.⁸⁴ Although, as M. J. Peterson argues, the gap between students and professors was much wider in a medical school, the apprenticeship model still exerted some influence and English professors generally displayed more interest in their pupils than their French counterparts.⁸⁵ William Baly, addressing the students of St Bartholomew's Hospital in 1848, assured them that they would find help whenever they sought it and encouraged them to ask teachers for assistance.⁸⁶ The efforts of some London schools to provide collegiate accommodation and James Paget's study on the careers of his former pupils also demonstrate the interest of professors in their students.⁸⁷

A valuable relationship was difficult to maintain in the setting of the lecture theatre. A student was more likely to single himself out in the eyes of teachers as an *interne* or dresser. As hospital surgeons and physicians, professors were prone to forge closer links with students who aspired to become specialists rather than general practitioners. Working closely together every day could also bring respect and friendship. Relationships of that quality, however, were reserved to a narrow elite.

DISCIPLINE

Student discipline was both a measure of and an element indicating the quality of instruction. Courses of little value were often those where students were the most rowdy, and mischievous behaviour, during any lesson, prevented diligent students from following adequately.

Students were often described as ill-disciplined and badly behaved. They would make noises and disrupt the normal course of the lesson by talking, 'a pastime to which medical

⁸⁴ Before medical schools began employing treasurers, each student met each of his professors when paying his fees in advance: Goellnicht, 'Keats', 75.

⁸⁵ Peterson, *The Medical Profession*, 71.

⁸⁶ W. Baly, *On the Study of Medicine and the Duties of the Student; an Introductory Lecture Delivered at St Bartholomew's Hospital on Monday, October 2, 1848* (London, 1848), 23; the following year, Farre repeated the same advice: Farre, *On Self-Culture*, 32.

⁸⁷ J. Paget, 'What Becomes of Medical Students', *Saint Bartholomew's Hospital Reports*, 5 (1869), 238-42.

students are much given'.⁸⁸ A Scottish pupil, shocked to witness how students awaited the arrival of Sir Astley Cooper, the lecturer on surgery at St Thomas' Hospital, wrote to *The Lancet* in 1823:

What an interesting spectacle, Mr Editor, to see a body of young men, assembled for the purpose of acquiring professional knowledge actively engaged in discharging masticated paper and apple into each other's faces, or employed in the no less intellectual occupation of twirling round the lecturer's table, or sprinkling dirt on the heads of those who happen to sit under them! I have been educated in Edinburgh, and have attended the medical schools of our continental neighbours, and I can assure you that the students of St Thomas's are not only far greater proficient in these accomplishments than their graver brethren of the North, but that if a student from the *École de Médecine* were introduced into the theatre in the Borough, he would be compelled to acknowledge the inferior vivacity of a class of French students.⁸⁹

Despite this claim, schoolboy behaviour was equally common on both sides of the Channel. French students, whom James Paget described as a 'most ruffianly, ill-looking set of fellows', often ragged the Paris Faculty professors when courses were of poor quality.⁹⁰

In both capitals, students did not hesitate to play pranks with the theatre's skeleton or horse around with the *materia medica* elements and chemical substances.⁹¹ A practical joke played upon Dr Ramsbotham, the midwifery lecturer at the London Hospital school, illustrates their creative tomfoolery:

A monkey... was introduced [into the lecture theatre], let loose, and immediately proceeded to locate himself on the back rail of the Professor's chair. Much laughter, of course, ensued, and Dr R., turning round was met face to face with the monkey... It always appeared that nothing could occur to make this gentleman angry, and the jokes, practical and otherwise, that were perpetrated were by no means unfrequent.⁹²

The students themselves were sometimes able to drive away troublemakers. However, to enforce proper behaviour and ensure consistency and regularity in the running of lessons, the

⁸⁸ 'That practice which exists in many of our schools of rubbing on the floor with the feet to disturb the lecturer when the hour of dismissal is approaching is disgraceful': J. Wallace, *Letters on the Study and Practice of Medicine and Surgery, and on Topics connected with the Medical Profession: addressed to Students and young Practitioners of Medicine, to Parents and Guardians, and the Public in general* (Glasgow, 1828), 103; Taylor, *The Diary of a Medical Student*, 67. Students did not keep quiet in the hospital wards either, which prompted Robert Graves to write: '[These students] come not to listen, but to speak; they consider the hospital a place of amusement rather than of instruction': Graves, 'On Clinical Instruction', 402.

⁸⁹ Edinensis, 'Conduct of the Surgical Class at the Borough Previous to Sir Astley Cooper's Entrance', *The Lancet*, (1823), i, 381-2.

⁹⁰ Paget, *Memoirs and Letters*, 100.

⁹¹ Robert Temple Wright noted that idle students usually preferred to sit on the wide top row, where they had plenty of room to loll about: Wright, *Medical Students of the Period*, 13.

⁹² '100 Years Ago', 81-3.

medical schools set up strict regulations. In Paris, the disruptions of 1822 prompted the French Ministry of Public Instruction to publish a new statute relating ‘to the discipline to be observed in the Faculties of Medicine’.⁹³ It was decided that students would need a ticket to enter lectures and that roll calls would be made twice a month. The dean of the Faculty was ultimately responsible for student conduct and could punish a pupil by cancelling his quarterly tuition. Although entry tickets were rarely controlled after 1830, the 1845 *Almanach général de médecine pour la ville de Paris* still described the measures taken to guarantee that classes were not disturbed:

The amphitheatres are open five minutes before the lesson and closed immediately afterwards. Students are only admitted if they are decently dressed and without a cane; they must keep their head uncovered. The professors have authority within the precincts of their courses. No other students than those who are interrogated by the professors may speak. Students receive a card without which they cannot enter the class; if they lend it, they may lose one or several inscriptions or even be expelled from the École, if this act led to disorder.⁹⁴

Each London hospital determined its own rules and regulations. Sobriety and impeccable manners were expected from students at all times, especially in the presence of patients. Although the schools’ administrations were responsible for the way students dressed and behaved, professors were at the sharp end of disciplining improper conduct. The direct payment of teachers by students, without necessarily undermining their authority, probably limited their willingness to use sanctions. Strong measures could render them unpopular and might affect the attendance at their lessons.

The control of attendance indicated the professors’ authority.⁹⁵ At the London Hospital, for example, John Adams, lecturer on anatomy, occasionally threatened the absentees but his warnings never carried force, whereas Henry Letheby, a chemistry teacher, did not tolerate lax attention or slack attendance and systematically called the roll.⁹⁶ Robert Temple Wright described the range of threats and punishments which professors used to enforce the administration’s regulations:

⁹³ Statute of 9 April 1825: Pinet, *Lois, décrets, règlements et circulaires*, 1, 303. On the 1822 events, see page 214.

⁹⁴ Domange-Hubert, *Almanach général de médecine*, 41.

⁹⁵ When professors did not wish to make the roll call themselves, the school administration asked the beadle to do it, which left students with the possibility of bribing him to avoid sanctions: Berdoe, *St Bernard’s*, 47.

⁹⁶ ‘100 Years Ago’, 81-3.

Some men at once order the disturber out of the theatre, and maintain a dead silence till the sound of his retreating footsteps has ceased; others make frantic appeals to the honour of the class in the most piteous eloquence; many restore order at once by a timely joke, such as asking a prominent talker a question on the subject just described; while a few can tame the most lawless spirits by a frown of portentous significance.⁹⁷

Counter-attacking against misconduct by interrogating the perpetrators on the daily lesson often proved effective in re-establishing order in the classroom and drawing attention back to the course, whilst shaming the culprit into submission. Professors even occasionally retaliated by depriving students of the instruments necessary to the lesson. Lionel Beale, a physiology teacher at King's College, once became so incensed at the disturbance that he decided to withdraw the microscope from future lessons.⁹⁸

CONCLUSION

The education that medical students were confronted with in London and Paris was far from perfect. Fortunately, they were given enough freedom and opportunities to remedy, to some extent, the defects of prescribed instruction. In the loosely organised English system, where many different forces acted on medical education, students could not hope for new regulations to solve their problems. Their only prospect was to use market forces in their favour by voicing their discontent and boycotting insipid lessons. In the significantly more regulated French system, students were able to circumvent the rules and seize opportunities to obtain alternative and complementary training from private teachers.

In both countries, a diligent student who sought to improve his training through additional courses, work at the library, visits to the museums and collaboration with fellow students stood a much better chance of gaining a thorough education than one who satisfied himself with the standard instruction.

⁹⁷ Wright, *Medical Students of the Period*, 12.

⁹⁸ Taylor, *The Diary of a Medical Student*, 24.

5. OUTSIDE THE MEDICAL SCHOOL: STUDENTS IN A SOCIAL CONTEXT

I fear the medical student should be very generally described as one of a class habitually regardless of the common usages and ordinary decorum of respectable society, decidedly inclined to associate with persons of low habit and to frequent places of base repute; adopting a particular costume, apparently intended to travesty the leading fashion of the day; prone to sensual indulgences, and indifferent to religion and religious observance.¹

Trifling with death... and want of moral control, are the causes which operate to make the medical student what he is; and these things can be remedied by the country at a very trifling cost.²

¹ R. B. Todd, *Some Remarks on the Education of Medical Students: particularly with Reference to those of King's College, London, in a Letter to the Rev. John Lonsdale, B.D., Principal of the College* (London, 1842), 7.

² Atlay, *Sir Henry Wentworth Acland*, 88. Atlay did not mention where he took this quote from Acland, but it was probably from his correspondence, in reference to his 1841 pamphlet: H. W. Acland, *A Letter from a Medical Student on some Moral Difficulties in his Studies, and on the Duty of the State to Aid in Lessening them, Addressed to the Rev. J.H. North* (London, 1841).

During their studies, medical and surgical pupils remained in an uncomfortable predicament, caught between freedom and duty. Although their presence in the metropolis was motivated by the single and all-important purpose of education, everything conspired to distract them from it. Unsupervised and at liberty to spend their time in either idle pursuits or strenuous study, they were to a great extent responsible for their own success or failure.

For the medical schools and the profession, student liberty, inherited from the eighteenth-century model of education, prevented the acquisition of proper instruction and the improvement of standards. Inside medical schools this freedom created confusion, disorganisation and a general disdain for regulations, and outside it fostered bad conduct and anti-social attitudes which the public condemned. The dominant negative image of medical students—that of unrespectable young men of low habits—was reinforced by their mysterious relationship with death. However, it was precisely this proximity to death, and the dull routine of medical instruction from which students sought to escape, that seemed to explain their mischievous behaviour.

PUBLIC PERCEPTION OF MEDICAL STUDENTS

Imagine a young man, possibly with an outward appearance of even boyish youth—give him powers and habits both of intense study and extreme dissipation,—manners displaying at once the refinement that education must always produce, and the coarseness of what I fear I must call libertinism; the look of conscious knowledge beyond others, as much of the recondite truths of science as of all the tricks and dodges of the town, an air of pride, likewise, and perhaps of poverty; clothe him in a pea-jacket, a rusty black stock, with no shirt visible, and trousers strapped down over his shoes. Then add a big stick and you will possess a tolerably correct notion of a medical student.³

This balanced opinion of medical students' dress, behaviour and dedication to study, recognising both their dissipation, shabbiness and roughness, and their knowledge and capacity for learning, was given by a young naval surgeon just fresh from medical school.⁴ Outside the medical world, however, a more negative image often prevailed, from Dickens's portrayal in *The*

³ R. Douglas, *Adventures of a Medical Student* (London, 1848), 35. See illustrations, page 296 et seq.

⁴ Douglas died at 24 and his novel was published posthumously.

Pickwick Papers to Albert Smith's descriptions in *Punch*.⁵ In France, Paul Avenel painted the rebellious Parisian student as 'a tall Voltairian, slovenly-looking fellow with dishevelled hair; witty, rowdy, wearing a worn-out dark outfit, a grimy hat, trousers with no braces, and down-at-heel boots...who goes to the *brasserie* or the tavern, drinks, sings, smokes, courts beautiful girls and breaks lampposts while laughing at the Pope and the University.'⁶

Charles Newman argued in the 1950s that Dickens was far from exaggerating in his portrayal of medical students and that at the beginning of the nineteenth century they were indeed 'appalling'.⁷ This opinion was previously asserted by Ernest Morris, who depicted them as 'insufferable cads'.⁸ Similarly, for Ernest Turner, writing at approximately the same time as Newman, early nineteenth century medical students were unrepentant grave-robbers, swaggerers and drunkards, more familiar with the pawnbroker than the launderer, and as such snubbed by shopkeepers and treated as pariahs by a great part of the population.⁹

Jacques Léonard claimed that, in France, this opprobrium gave rise to two contradictory stereotypes. According to one, the medical student was a debauched and cynical young man, pillar of dancing-halls and dedicated companion of prostitutes, who ragged his professors and scandalised the public with his disrespectful scorn born of the dead-house and the dissecting-room. The opposite stereotype painted him as a hungry and revolutionary pupil of low extraction, forced to find many small employments to afford his fees.¹⁰

Undoubtedly, a category of students matched the most unfavourable descriptions. Dr Sacré, in his 1834 thesis, reproached some of his fellow Parisian students for forgetting the holiness of their vocation and upholding the poor reputation of medical students. To the outside world, he added, the medical school represented only a handful of young madmen who would

⁵ Smith's contributions to *Punch* regarding medical students were later published separately: A. Smith, *The London Medical Student* (London, 1861).

⁶ P. Avenel, *Les Étudiants de Paris* (Paris, 1847), 3. Dress helped creating a community identity. Robert Todd, professor at King's College, claimed that medical students adopted a particular costume 'apparently intended to travesty the leading fashion of the day': Todd, *Some Remarks on the Education of Medical Students*, 7.

⁷ Newman, *The Evolution of Medical Education*, 41.

⁸ E. W. Morris, *A History of the London Hospital* (London, 1910), 170.

⁹ E. S. Turner, *Call the Doctor: A Social History of Medical Men* (London, 1958), 144-7.

¹⁰ Léonard, 'Les études médicales', 90.

never become doctors, who had adopted the motto *'Benè tumultus olit unde cumque veniat'* and only left the tavern to disturb the diligent students who attended the professor's class.¹¹ However, Sacré's testimony underlines the disparity between the actual behaviour of students as a whole and their image in society. Stereotypes and caricatures cannot be taken as a basis for the conduct of all students, or even of a majority of them.

The diverging opinions lead one to question where the public perception of medical pupils stemmed from, what objective factors created and sustained it for decades, and how students reacted to it. It appears that this negative image found its roots in the very condition of the medical student, and in social, material and intellectual causes.

Causes of a bad reputation

Although medical historians have acknowledged the unruly reputation of medical students in the nineteenth century, they have failed to agree on an explanation for this phenomenon. Charles Newman believed that the testimonies reflected the actual behaviour of students, which he explained by the detrimental influence of a minority of lower-middle class pupils, the general coarseness of society, the crudeness of professors, an indecent 'dissecting-room culture' and the lack of proper living arrangements.¹² Thomas Bonner pointed to their young age and harsh circumstances of life as obvious aspects which prompted them to relieve tension in rowdy behaviour. Both he and Jacques Léonard have hinted that this disrepute was somewhat undeserved and that most students were more preoccupied by the daily routine of study than by producing mayhem. M. J. Peterson has explained the gradual fading of rowdy behaviour in the later part of the century in terms of self-discipline and professional pressure for better standards. Recently however, Keir Waddington has argued that these factors alone could not properly

¹¹ 'Wherever he passes a great mayhem arises': Sacré, *Considérations sur l'étude*, 10. Another French student, Pierre Broc, explained dissipation by a lack of proper preliminary education. Many students, he claimed, had neither taste nor curiosity for their studies, and therefore escaped boredom by engaging in dissipation: P. P. Broc, *Essai sur la manière de préparer à l'étude de la médecine* (Paris, 1818), 18.

¹² Newman, *The Evolution of Medical Education*, 44-5.

explain this change in conduct. In his view, medical schools played a crucial role in disciplining students and instilling moral and professional values from the 1840s. At St Bartholomew's Hospital, for example, improvement was the product of practical measures, such as the creation of a collegiate system (1843) and of a Discipline Committee (1861).¹³

'In defence of those much maligned people'

The image of rowdy medical students is confirmed by many testimonies and as such is impossible to discard. This unfavourable reputation was founded upon recurrent disorder inside and outside the medical schools. However it can hardly be said that the sources of this picture—mainly caricaturists and medical reformers—were impartial observers. What caricaturists have presented as the unique model, and what reformers have condemned as the general archetype, was not a true representation of medical students. It is in the nature of caricatures to emphasise certain aspects, to paint a bold portrait which will make the reader react.¹⁴ Furthermore, it was also in the interest of medical reformers such as Wakley and Delasiauve—men deeply involved in educational and professional improvement—to present an image that would gather support for their cause. Their emphasis on improper conduct reinforced the necessity of urgent reform, since, as Gert Brieger has written, character and gentility were fundamental for a profession striving for respectability and authority.¹⁵

The reaction of outside observers tends to accentuate the idea that mischievous behaviour was the norm. However, the noise and disorder produced by a handful of students easily overshadowed the quiet exertion of hard-working pupils who burnt the midnight oil over textbooks in their garret. Many students therefore felt that this disrepute was partly undeserved, or at least that the whole student community should not be condemned for the conduct of

¹³ K. Waddington, 'Mayhem and Medical Students: Image, Conduct, and Control in the Victorian and Edwardian London Teaching Hospital', *Social History of Medicine*, 15 (2002), 45-64.

¹⁴ 'The Physiology of the London Medical Student', *Punch*, (1841), i, 184. The medical caricatures of the 1830s and 1840s from *Punch* and *Le Charivari* belong to a tradition which presented a humorous view of doctors, lawyers, industrials and politicians alike.

¹⁵ G. H. Brieger, 'Classics and Character: Medicine and Gentility', *Bulletin of the History of Medicine* 65 (1991), 88-109.

individuals. Henry Acland was shocked to discover the general hostility against medical students when he arrived in London to study medicine in 1840. After he was treated uncivilly by a bookseller, a friend warned him that he ‘must be prepared for that wherever he was known to be a medical student’.¹⁶ Acland felt so strongly about this injustice that, while still a student at St Georges’ Hospital, he tried to assess in a pamphlet where this reputation came from and how it could be improved.¹⁷ He did not hesitate to criticise his fellow pupils and acknowledged that they generally behaved insufferably, yet he claimed that their particular situation presented extenuating circumstances:

The question ought not to be, whether we are bad men, and want control, for that I doubt not; but whether we are worse than other large bodies of young men. *Considering our disadvantages*, I think not. We have difficulties to labour under and trials to encounter such as no other young men have.¹⁸

In 1867, R. T. Wright also wrote his portrayal of medical students to dispute the unfair public image. He regretted that despite improvements in student behaviour over the previous decades no one had ever tried to dispel this undeserved reputation. Only Charles Kingsley, a novelist, social reformer and one of the Queens’ chaplains, had defended them in a sermon at the Chapel Royal, Whitehall, in 1864, by saying that they generally performed honestly their disagreeable duties.¹⁹ Wright challenged anyone to prove that, despite the absence of any proctorial system to watch over their morality and activities, London medical students were more addicted to an easy life than Oxford and Cambridge men. He also asked how students could be ‘universally reprobates’ when they constantly developed into highly respectable family doctors.²⁰

¹⁶ Atlay, *Sir Henry Wentworth Acland*, 82.

¹⁷ Acland, *A Letter from a Medical Student*. Acland was utterly revolted by the fact that medical students received hardly any mark of gratitude despite the services they offered to hospital patients and the ‘blessed’ profession they had embraced. He considered North’s pamphlet as one of the few gestures made towards improving medical students’ situation. See J.H. North, *A Letter to Sir B.C. Brodie, Bart. on the Application of the Collegiate System to the Medical Schools of the Metropolis* (London, 1841).

¹⁸ Acland, *A Letter from a Medical Student*, 7-8.

¹⁹ Wright, *Medical Students of the Period*, 2-3.

²⁰ Ibid. Douglas used the same argument to exonerate students from reproach, arguing that if rakish conduct was excusable in any one, it had to be in the medical student who would soon settle into ‘the quiet and strictly moral and exemplary medical practitioner’: Douglas, *Adventures of a Medical Student*, 36.

Parisian medical students, although subjected to the same moral attacks as their London counterparts, did not feel the need to defend themselves so passionately. In the public eye, their rowdy behaviour was closely associated with their political engagement which they were not ready to abandon. They may therefore have been more inclined to accept the caricature if it meant that the myth of the student ‘saviour of the Revolution’ was preserved. Some were nevertheless compelled to correct the misgivings as to their moral conduct and their dedication to study. Poumiès de la Siboutie, for example, noted in his memoirs that his fellow pupils were generally very decent and sober.²¹ Léon Grenier, in his 1861 volume on the Latin Quarter, claimed that the nature of his studies required the medical pupil to live quite differently from the law student, and that he was also more serious and philosophical: ‘He is a student who studies.’²² This echoed Donne’s opinion, for whom only medical pupils deserved to be called ‘students’.²³

Besides, even when they misbehaved, medical students were neither the only group of young men to do so nor the most violent. Disorder was a constant companion of youthful outbursts of energy and an important component of young masculine culture. Disruptive behaviour appeared more as a stance, a deliberate intention to shock the public and contradict social values, than as the conduct of a group bent on crime. The students’ rebellious outlook on life was therefore expressed more in the drunkenness, ‘foul-mouthedness, indecency, callousness and cynicism’ described by Newman, than in violence.²⁴ In *Paris ou le Livre des Cent-et-Un*, Karr claimed that many put on a show to conform to a certain idea of what a student should be. They played at exhibiting unruly behaviour, but deep down were actually good and innocent family boys.²⁵

²¹ F. L. Poumiès de la Siboutie *Souvenirs d'un médecin de Paris* (Paris, 1910), 91.

²² L. Grenier, *Le Quartier latin* (Paris, 1861), 46.

²³ Donne, ‘L’étudiant en médecine’ in *Paris ou le Livre des Cent-et-Un*, 15 vols (Paris, 1831-4), vol. 8, 374.

²⁴ Newman, *The Evolution of Medical Education*, 41.

²⁵ A. Karr, ‘Le Bal au Cinquième étage’ in *Paris ou le Livre des Cent-et-Un*, 15 vols (Paris, 1831-4), vol. 11, 115.

The status of medical student

Most of the blame for poor behaviour must be placed on the intrinsic nature of medical studies. It was a common opinion among medical students that their years in the metropolis represented, as F. Cartwright put it, ‘a holiday between the toil of apprenticeship’—or the strict lycée regime—‘and the arduous life of a practitioner’.²⁶ According to one of Munaret’s fellow pupils, studies were clearly second to a host of activities:

Four years, all mine, four years in Paris! And my freedom re-conquered, and the punch with the friends, and La Chaumière... *Deus nobis haec otia fecit*... It is indeed to the godly Hippocrates that I owe this happy episode of my life, before commencing the chapter of dark worries. Thus I swear on his venerable beard to regularly pay my course fees at the Faculty’s office and to subscribe, for a month at least, to all the textbooks that must answer my examinations. As for my thesis!...²⁷

Lack of control over their studies was the main reason why students allowed themselves to fall into dissipation. Their liberty contrasted with stricter regimes other categories of students had to endure. As long as they conformed to the broad curriculum, they could organise their studies as they wished and were neither supervised nor bound to report to anyone. Attendance was ineffectively controlled, when at all, and students therefore arranged their day as they pleased. Even for a studious young man, the life of a medical student remained ‘desultory’.²⁸ Constantly travelling back and forth between lecture-theatres, dissecting-rooms, hospital wards, libraries and his own desk, he could not focus on any single task. The multiplicity of disciplines also encouraged him to select those for which he had an affinity and neglect the others. Teaching inadequacies and the remoteness of the professors added to the general dissatisfaction.²⁹

The content of medical studies also led students to partake in unruly and shocking behaviour. Not limited to theoretical concerns as were law and theology students, they faced ‘the raw stuff of life and death’ every day in their practical studies (clinical rounds, operations and

²⁶ F. Cartwright, *A Social History of Medicine* (London, 1977), 53.

²⁷ Munaret, *Le Médecin des Villes*, 502. La Chaumière was a popular dancing-hall. The Latin quote, from Virgil’s *Aeneid*, translates as ‘God has provided this leisure for us’.

²⁸ North, *A Letter to Sir B.C. Brodie*, 5.

²⁹ Turner, *Call the Doctor*, 148-9.

dissections).³⁰ The objectivisation of patients, the distressing view of dead bodies and the necessity, mentally, to strip them of their humanity before attacking with the scalpel produced moral anxiety and psychological tension which students relieved with laughter and pranks. Although the novice was shocked at first by this behaviour, parting with innocence did not require a great effort.³¹

While the theatre was the domain of the lecturer and the wards that of the hospital practitioner, the dissecting-room, where the identity of medical students as a group was forged, really ‘belonged’ to the pupils. In this professional space closed to outsiders the *esprit de corps* reigned, and new students soon found themselves participating in the general laughter and playing with body parts like the others. In his biography of Thomas Wakley, Sprigge described how medical students counterbalanced the heavy atmosphere by bragging about ‘their ingenuity under the stress of poverty, their coolness under the threat of the law, their personal courage, and their personal attractiveness.’ He argued that these trivial conversations ‘bred a familiarity with repulsive objects which effectively did away with a proper regard for the decencies of life.’³²

A demanding curriculum, difficult moral issues and the deficient educational system combined to confuse students and produce worries and frustrations, which no institutional outlet enabled them to dispel. Alone with their distress and dissatisfaction, faced with the irrepressible appeal of city ‘pleasures’, they sometimes abandoned the daily toil of the school for the easy city life.

Public hostility and professional concern

In the dissecting-room, medical students gradually went through clinical detachment, an incommunicable rite of passage which rendered them apparently indifferent to death. Outside the medical school this dissecting-room culture reinforced the image of students as cruel and

³⁰ Ibid., 144.

³¹ Acland, *A letter from a Medical Student*, 12.

³² S. S. Sprigge, *The Life and Time of Thomas Wakley* (London, 1897), 19.

irreligious men and led to society's altered view of their personality. A light-hearted conversation between Bob Sawyer and Benjamin Allen—nothing more than a trivial professional exchange of views about dissection—became an offensive discussion at the inn's breakfast table by reducing the human body into a soul-less, impersonal object.³³ Similarly when a medical student called Porcheron displayed a child's arm in a Parisian theatre in 1842, what would have been a common prank in the dissecting-room became a crime punishable by prison.³⁴

The public hostility to medical students fed not only on these external demonstrations of reprehensible behaviour but also on the fear of what actually went on inside the dissecting-room. In 1829, for example, a caricature represented students as monstrous scavenging birds feasting on a corpse.³⁵ In England, the passing of the 1832 Anatomy Act did not entirely remove the perception of medical students as accomplices of body theft and crime. Even before 1832 no medical student was ever found implicated in a murder, yet an 1840 engraving of a medical student was nevertheless entitled 'We murder to dissect'.³⁶

Hospital patients and their families probably perpetuated this public fear. Despite their relative inexperience, medical students were called on to dispense care at hospitals, dispensaries and private homes, sometimes abusing patients' inferior and vulnerable positions. To the sick, students appeared free from responsibilities and likely to be tempted to experiment with bold drugs and therapies.

Rowdy student behaviour also threatened the profession's efforts to become a scientifically recognised and socially respected body. Early nineteenth-century scientific progress did not translate immediately into more efficient treatment. The resulting discrepancy between the

³³ _ 'Bye the bye, Bob,' said Mr Allen, 'have you finished that leg yet?'

_ 'Nearly,' replied Sawyer, helping himself to half a fowl as he spoke. 'It's a very muscular one for a child.'
Dickens, *The Pickwick Papers*, 494.

³⁴ Caron, *Généralions romantiques*, 149-50.

³⁵ See Illustration 12, page 293.

³⁶ See Illustration 10, page 296. In London, where the standard of decorum and propriety was higher than in Paris, the attendance on pregnant women by medical students also raised eyebrows.

newly-acquired knowledge of practitioners and their poor results in practice hardly helped them in their continual claims of superiority over uneducated healers. They were therefore dependent upon a strong professional image and individual reputation to build a sizeable clientele and overcome the competition from quacks. Whereas individual misbehaviour disqualified a student morally from practising medicine, when adopted by even a small minority this conduct was a threat for the whole student group and compromised the profession.³⁷ Young practitioners found that their acceptance by society was jeopardised by the negative view of medical students, and sometimes joined reformers in their complaint about student behaviour. Unfortunately, the most boisterous pupils remained deaf to these criticisms. In the enjoyment of the moment they ignored professional concerns and trusted that their individual misdemeanours in the metropolis would remain unknown in the country village where they would settle. Furthermore, nothing in the educational system really obliged them to abandon their dissolute way of life. They were rarely penalised for their misconduct while diligent students did not receive any immediate reward for their good behaviour.

Students were therefore in a position where they could not escape criticism. The contradictory expectations of society, medical schools and the profession and the many opportunities to deviate from ideal behaviour were largely responsible for the adverse reputation that arose. The educational institutions set up curricula and drew up guidelines but did not ensure that these were enforced. Professional institutions required students to acquire a thorough knowledge of anatomy, but this meant engaging in activities, such as dissections, that were greatly disapproved of by the public. Society expected pupils to be dedicated to their studies but left them to their own devices at an age prone to dissipation. Society also expected them, as prospective members of the medical profession, to conform to the practitioner's austere

³⁷ 'How can a man who inebriates his brains with drink, do justice to the profession...; how can a man who follows the facile morality of the day, and who degrades his purity, and lowers the tone of his mind in the company of prostitutes... worthily practise a calling to which the honour of women and the happiness of men is, more than to all others, committed': E. A. Parkes, *On Self-Training by the Medical Student: the Introductory Lecture Delivered in University College at the Commencement of the Medical Session, 1856-57* (London, 1856), 28-9.

behaviour in all circumstances—especially in their care of patients—but their age and inexperience were ill-suited for such rigorous conduct.

LIVING CONDITIONS

Finances

Medical pupils were financially reliant on the monthly allocation given by their family or guardian. The annual allowance probably averaged around £80-120 in London and 1,200-1,600 Francs in Paris. Henry Peart, for example, spent slightly less than £200 during one and a half winter sessions in London (1828-1830), which put him at the higher end of estimates provided by witnesses to the Select Committee on Medical Education in 1834.³⁸ At the other end of the spectrum, Thomas Wakley found it difficult to live on his £80 annual allowance in 1815.³⁹ Donné noted that a Parisian student with 2,000 Francs per annum was rich, and although he considered 1,200 Francs a minimum, one of his friends survived on less than 400 Francs.⁴⁰

These figures indicate that medical studies and living expenses were not as heavy on the purse in Paris as in London, a difference which can be simply explained by the way of living and dressing.⁴¹ In his *Essay on Medical Education*, Thomas Hodgkin hinted that the inferior financial means of French students did not prevent them from pursuing their studies properly, arguing that ‘whilst their dress and mode of living attest their poverty, in their hands may be seen the best and newest publications.’⁴² The poor appearance of Parisian students was also confirmed by James Paget. Although not particularly impressed by the way pupils dressed in London, Paget was utterly horrified by his Parisian counterparts exhibiting ‘wooden shoes, ragged coats, and

³⁸ The surgeon Benjamin Travers believed it was possible to complete the 2½ years in London for less than £200, including board and lodging, whereas Richard Grainger estimated that a student needed at least £450 to £500: Loudon, ‘A Doctor’s Cash Book’, 251-6.

³⁹ Newman, *The Evolution of Medical Education*, 47.

⁴⁰ Donné, ‘L’étudiant en médecine’, 382.

⁴¹ Although Loudon notes, from Henry Peart’s cash book, that food, drink and lodging seem to have cost about the same in Paris as in London, a ‘medical tourist’ like Peart probably incurred more expenses than a Parisian student would have: Loudon, ‘A Doctor’s Cash Book’, 256.

⁴² Hodgkin, *An Essay on Medical Education*, 11.

unwashed and unshaven faces'.⁴³ Living in the closed world of the Latin Quarter, Parisian medical students did not need to shine every day in society and were therefore able to sacrifice on their appearance rather than on the necessities of study.⁴⁴ Furthermore, for most, only success at examinations would guarantee their future. London hospital pupils, however, needed to keep up appearances. Ambitious students had to differentiate themselves from others and make a good impression on the professors to obtain clerkships and dresserships, the first step to a successful career. Prospective surgeons and apothecaries were encouraged to reach for the highest professional strata and to emulate physicians. To secure good positions they needed to be seen in influential medical and social circles, which implied expenses in clothing and transport to influential households.

The size of the allowance, in both metropolises, was partially defined by the family's affluence but mainly by the level of control that parents sought to exercise from afar. They feared that any more than the bare minimum to spend on necessities would accustom their son to an easy life. The monthly allowance gave them sway over him inasmuch as that amount defined his spending power and subsequent lifestyle. In correspondence, they often asked him to account for his expenses and also encouraged him to frequent family and friends, who could report back on his conduct.⁴⁵

Life as a bachelor provided the student with a financial autonomy fraught with danger. Distance prevented his family from properly monitoring and advising him on the best way to

⁴³ Paget added that he might fairly have left his two best suits and nearly all his linen in England without losing the respectability of his professional appearance: Paget, *Memoirs and Letters*, 100.

⁴⁴ Avenel argued that French medical students lived in hovels and therefore did not need any fancy dress: Avenel, *Les Étudiants de Paris*, 5. Only rarely did French students display the flamboyant attire adopted by some London and Dublin pupils, described in *The Lancet* as 'a blue-frocked, black-stocked, Wellington-booted assemblage of medical dandies' presenting the whole paraphernalia of puppyism, including broad and bright gold rings, steel guard-chains, often without watches to protect, and quizzing glasses: Erinensis, 'Sketches of the Surgical Profession in Ireland', *The Lancet* (1824), ii, 231.

⁴⁵ The Hodgkin family, for example, used bank accounts and letters of credit to supplement Thomas's funds while he lived in Edinburgh and Paris: WLHUM, Manuscripts of the Hodgkin Family, MS PP/HO/D/A106 (Letter to Thomas Hodgkin from his father, 23 Oct. 1820). Often, however, credit was arranged between private individuals: Broca's family asked a business acquaintance to deliver the allowance on a monthly basis. This enabled the parents to have someone in the city to monitor their son's expenses and help him in case of a financial emergency.

juggle his educational, living and recreational expenses. Correspondence with parents would not serve for urgent matters and students were obliged to make financial decisions on a regular basis without their approval or advice. Many found it difficult, at first, to manage their funds and to handle money.⁴⁶ Certain items in the budget such as course fees, lodgings and food were easy to anticipate. Medical school fees were published in advance and room and board, which was often all-inclusive, was similarly simple to estimate and could be paid on credit at the end of the month. Daily life, however, implied a host of smaller expenses, from articles of clothing to tobacco. Additionally, students needed to foresee other expenses related to their studies, such as textbooks, scalpels, bones and private tutoring.

To stay within the narrow limits assigned by their family, young men drew up a budget and monitored their expenses. The limited size of the allowance implied a very small reserve of money for unexpected payments and many students were left with little, or nothing, until the following month. In one entry of his diary, Taylor wrote that with only 5s.9d. in hand and a fortnight's rent to pay, his finances were getting very low and that 'economy must be the order of the day', if he wanted to avoid a disagreeable letter from 'headquarters'.⁴⁷ In his novel *St Bernard*, Edward Berdoe noted that even medical students from wealthy families, with enough money to squander, experienced low funds at times.⁴⁸

Léonard argued, quite convincingly, that family control over medical students' resources meant that bohemian life was a rare luxury. Medical students knew they could not afford a rich lifestyle with their limited resources on a daily basis, but they were happy to taste it once or twice a month, even if it meant scrimping and saving for weeks.⁴⁹ Louis Véron used two methods to fight the temptation of dissipation: he relaxed from study by reading literary works, and avoided carrying any money about with him. On the first day of each month, he received 20 Francs from

⁴⁶ Bonner, *Becoming a Physician*, 77-8.

⁴⁷ Taylor, *The Diary of a Medical Student*, 27.

⁴⁸ Berdoe, *St Bernard's*, 30.

⁴⁹ Paul Diday, for example, saved on his restaurant meals to buy theatre tickets: P. Diday, 'Les récréations d'un étudiant de 1830', *Annales de la Société de médecine de Lyon*, XXIV (1876), 19.

his parents. That day, he dined with friends in a restaurant, went to the theatre, and finished the evening at the Café du Roi. For the remainder of the month he was left with only the strict minimum.

Medical students with limited financial means were able to supplement their allowance by taking on part-time employment. Alfred Donné claimed that medicine, which offered many opportunities to the enterprising young man, gave them a great advantage over law students. Medical pupils could easily give private lessons to younger students and once they obtained some hospital experience, they could earn a little by performing blood-letting and bandaging for an established practitioner.⁵⁰ In Paris, *internes* received 500 Francs per annum, which they easily complemented with private courses. If they combined this position with that of prosector, they could, like Broca, live without their parents' support. Students could also work in a score of non-medical occupations. Jean-Victor Audouin, for example, gave Italian lessons and later acted as assistant to a mineralogist at the Muséum d'Histoire naturelle.⁵¹ It was probably easier to retain part-time work in Paris, where courses were rarely scheduled beyond 4 p.m. Furthermore, lax roll-calls meant that a student could absent himself from clinical rounds and dissections altogether in the morning. In London, where lessons started later and lectures were distributed all along the day, such arrangements were more difficult to sustain without taking time off from studies. However, by missing the lessons almost completely, a medical student could work for a while as a bank clerk in the city and hope to read enough in the evening to pass his examinations.⁵²

If the situation became too dire, students were obliged to beg their family for more money, which inevitably required explanations. If the parents found that their son had been careless in his spending, they generally tried to persuade him that he could not persist in his conduct

⁵⁰ Donné, 'L'étudiant en médecine', 384.

⁵¹ Before 1815, many assistant-surgeons, back from Napoleon's armies, came to Paris to become *officiers de santé* but were so poor that they were obliged to work in barber-shops. They were nicknamed 'majors', a derisory title indicating their military origin. The other students claimed that they had no rightful place at the Faculty and effectively chased them away: Poumiès de la Siboutie *Souvenirs d'un médecin de Paris*, 88.

⁵² Turner, *Call the Doctor*, 150.

without jeopardising their respect and affection for him. They sometimes appealed to an outside authority to reinforce the message. John Crosse's master, for example, wrote to him to relay his father's worries about his renewed requests for money.⁵³

In some cases, the explanation given by the son only worsened the situation. Hector Berlioz, for example, who admitted spending his time at the Opéra to practise and compose music rather than at the Faculty of Medicine, saw his financial lifeline cut altogether. Students commonly hid their poor financial situation from their parents by asking friends for a small loan or resorting to the pawnbroker. Low financial means were so frequent that a group of Parisian students proposed establishing a fund to lend money to the pupils who needed it, but the suggestion was rejected by the authorities.⁵⁴

Lodgings

Location and type of accommodation

Faced with a challenging educational system, diligent students sought domestic environments conducive to study and reflection, which would protect them from the detrimental influences of city life. Undoubtedly a pupil's success in his studies was largely influenced by the arrangements he made for his lodgings and board because they determined his proximity to the school, the friendships he would make, the habits he would form and the amount of control that would be exerted over his conduct.⁵⁵

Location was the first factor taken into consideration. In London, medical students usually gained all their medical instruction at one single hospital school and logically chose to live close by. Those who studied anatomy and attended theoretical courses in private schools also selected a residence within a reasonable distance to the hospital, in case they would have to rush there to witness an urgent operation. In Paris, the great majority of medical students lived within

⁵³ Crosse, *A Surgeon in the Early Nineteenth Century*, 36.

⁵⁴ A. Hardon, *Projet d'une caisse de prêt sans intérêt pour les étudiants en médecine de Paris* (Paris, 1866), 1. A few students, unable to repay their debts, ended up in prison: Caron, *Généralisations romantiques*, 91-3.

⁵⁵ T. Wakley, 'Editorial', *The Lancet* (1840-1841), ii, 839-41.

a few streets of the Faculty, particularly around Rue St-Jacques, which possessed many student hotels and *pensions*.⁵⁶ They travelled to the hospitals in the morning, to attend the clinical rounds, and returned to the medical school for the remainder of the day. As their work-place shifted from the Faculty and the dissecting-rooms to the hospitals, some students moved out of the Latin Quarter. The externes training in distant hospitals (St-Louis or Beaujon, for example) often lived next to these establishments for the convenience of the morning rounds. If appointed as *internes*, the hospital administration provided them with a room in the hospital precinct.

Several housing options existed for a young man in a capital city such as London or Paris. A furnished room rented from a private landlord on a weekly or monthly basis was the most popular form of accommodation in London. Tenants were provided with room and board and sometimes with additional services such as heating (firewood) and lighting (candles). Private housing was readily available in the vicinity of the various medical schools and hospitals. Landlords often offered two or three rooms in their house, enabling several students from the same hospital to board together.⁵⁷ A small bedroom and sitting-room in a ‘confined and gloomy situation’ usually cost around £3 a month.⁵⁸

In Paris’s Latin Quarter, a network of private accommodation catered to the needs of medical, law and other students. Student hotels, which rented rooms for 25 to 65 Francs a month, represented the most inexpensive option and therefore attracted the poorest students.⁵⁹ At the most sizeable hotels—some could accommodate up to 100 pupils—the landlord quickly lost any authority over the tenants. John Wiblin, an English physician, described them as places usually inhabited by ‘a set of dirty, filthy, disgusting fellows’ left entirely free to behave as they pleased, where the constant noise from singing and music at night made it impossible to work.

⁵⁶ The students living on the affluent right bank were usually Parisians residing with their family: Archives Nationales, F¹⁷ 6754-6944; Caron, *Généralions romantiques*, 125 -8.

⁵⁷ North, *A Letter to Sir B.C. Brodie*, 7; Berdoe, *St Bernard’s*, 26.

⁵⁸ V. Thomas, *The Educational and Subsidiary Provisions of the Birmingham Royal School of Medicine and Surgery* (Oxford, 1843), 19.

⁵⁹ The following description is partly based on John Wiblin’s *The Students’ Guide*, which provided very useful information on lodging conditions in Paris.

Wiblin recommended, therefore, choosing a reputable hotel, or opting instead for a boarding-house (*pension*) where, for between 70 and 120 Francs a month, a student could obtain a comfortable apartment with very satisfactory breakfasts and dinners.⁶⁰

Most student accommodations were dark and unappealing, with only one tiny window. Shephard Taylor described his new apartment as rather dull and gloomy, but admitted that it was ‘free from the noise and turmoil of the main thoroughfare, an advantage not to be despised by one engaged in studious occupation.’⁶¹ A student apartment of one or two rooms often comprised no more than a hard low bed, a table, a writing desk with locks, a chest of drawers, two armchairs, two chairs, a small clock over the fire-place and a washstand.⁶² The décor was often limited to the medical student’s essential items: pieces of a skeleton, jars of pathological and anatomical specimens, and textbooks.⁶³

Failed attempts at a full collegiate system

Parents and guardians did not hold private accommodation in great favour, although it was the option most commonly adopted by students. They worried about the absence of direct supervision, as well as the lack of rules. Parental concerns often stemmed from their son’s young age. At 17 or 18, most had never spent long periods by themselves outside the society of family or friends. These paternal fears were voiced in 1841 by Rev. J. H. North, chaplain to St George’s Hospital in London, in a pamphlet addressed to one of the professors, Benjamin Brodie. He outlined the differences between the living environments of English university students and medical pupils, identifying dangers likely to threaten the well-being of young men in private accommodation. Unlike their university peers, medical students did not get any help in choosing

⁶⁰ An American physician, Ferdinand Stewart disagreed, arguing that pensions were not agreeable residences unless all students knew each other and had similar habits: F. C. Stewart, *The Hospitals and Surgeons of Paris* (New York, 1843), 172.

⁶¹ A former school-fellow recommended Dyer’s Building (close to Gray’s Inn Road) to him. Consequently, his landlady offered him a ‘cordial reception, as a personal friend of her former lodger’: Taylor, *The Diary of a Medical Student*, 1.

⁶² A. Cabanès, *Mœurs intimes du passé. 4^e série: la vie d’étudiant* (Paris, 1921), 472.

⁶³ Donné, ‘L’étudiant en médecine’, 375.

an apartment, and no supervisor ensured that they took regular meals.⁶⁴ They were responsible for arranging all household affairs and could not entertain any hope of guidance concerning their health, comfort or the suitability of their lodgings.⁶⁵ However, beyond the material well-being of students a more serious moral issue was at stake. According to North, an unsupervised student would not fail to fall prey to the ‘Babylon of temptation’,⁶⁶ which wielded its power over young men in the shape of four evils: women, drink, gambling and irreligion.

The pupil is entirely his own master; that is, in all matters relating to his hours, his expenses, his companions, his religious and moral habits, he is utterly without a check; and in all the heat and inexperience of youth, he finds all London before him for the uncontrolled gratification of his favourite desires, whatever they may chance to be.⁶⁷

To provide medical students with a better working environment and shelter them from the dangers of city life, several British reformers, like Joseph Henry Green, recommended applying the Oxford and Cambridge collegiate system to the London medical schools:

We cannot estimate too highly the advantages from this provision for an intermediate state between that of a full-grown school-boy and the independent young man— a state during the most perilous period of human life, in which the individual may remain *sub tutela*, yet no longer as a boy, but as a man influenced by the principle and estimation of his equals, by the example of his seniors, by the habits and laws of the college in which he dwells, and mildly coerced by a peculiar discipline, which even at the time he feels to be a honourable distinction, and which he knows will be hereafter considered as entitling him to a distinct rank in society.⁶⁸

Traditionally, however, medical education was not regulated by the teaching institutions. Students, who came to the metropolis when they pleased and matriculated with a professor rather than a particular institution, were difficult to control. First efforts to implement the collegiate system only emerged after the university model was introduced in London and remained on a small scale, with King’s College providing a few rooms for its students. In 1837,

⁶⁴ North, *A Letter to Sir B.C. Brodie*, 5-7. Students were indeed unprotected from unscrupulous landlords, quick to take advantage of youths and to change rental agreements by applying restrictions on food and fire-wood. Shephard Taylor, for example, had to complain to his landlady about the hour at which she made breakfast: Taylor, *The Diary of a Medical Student*, 18.

⁶⁵ To save their son the trouble of finding a home by himself in his initial term some parents arranged his accommodation in advance or asked relatives or friends to help him find a suitable place to live: S. T. Taylor, *The Diary of a Norwich Hospital Medical student, 1858-1860* (Norwich, 1930), 50.

⁶⁶ Wakley, ‘Editorial’, *The Lancet* (1840-1841), ii, 839-41.

⁶⁷ North, *A Letter to Sir B.C. Brodie*, 8.

⁶⁸ Green, *The Touchstone of Medical Reform*, 35.

Robert Todd, a professor at King's College, suggested that the collegiate system be applied to all the medical schools of London to safeguard the material, moral and religious well-being of students and improve attendance.⁶⁹ Confronted with competition from University College and King's College, the older hospital schools endeavoured to offer similar guarantees to families. In 1839, the governors of Guy's Hospital published *The Heads of a Scheme for the Improvement of Medical Education in the Metropolis*, which outlined a plan for a collegiate residence.⁷⁰ They justified their project by the need to preserve students 'from the idle, extravagant, and immoral courses to which the metropolis offer[ed] such facilities' and were confident that the proposed establishment would possess restraints which would satisfy parents and guardians, and that the 'increase of comfort, convenience, and respectability' would appeal to students.⁷¹ In the end, however, they were unable to gather enough private funding to build the residence.

In 1841, North presented a strong defence of the collegiate system, which he wished to see applied to St George's Hospital.⁷² Henry Acland, then a pupil in that hospital, supported his effort. Acland, aware of the aborted attempt to establish a college with private money at Guy's Hospital, favoured government intervention to help the five main hospital schools build accommodation.⁷³ Notably, the government did not answer his wishes any more than St George's governors did North's. In 1842, Todd reiterated his appeal for a generalisation of college accommodation and recommended that King's College receive at least fifty pupils, but his proposal was not implemented either.⁷⁴ However, a dean was appointed among the professors to provide information and support to the students and a few years later, King's College introduced tutors, senior pupils who assisted their juniors in organising their time

⁶⁹ Todd, *Some Remarks on the Education of Medical Students*, 32.

⁷⁰ Acland, *A Letter from a Medical Student*, 24.

⁷¹ *Ibid.*, 24-6.

⁷² North, *A Letter to Sir B.C. Brodie*, 11-14. Such a measure would benefit not only the students, but also the entire hospital community as a well regulated and disciplined body of pupils would have a positive influence on hospital staff.

⁷³ Acland, *A letter from a Medical Student*, 27.

⁷⁴ Todd, *Some Remarks on the Education of Medical Students*, 15, 24. Vaughan Thomas, a professor at the Birmingham medical school, also suggested that the collegiate system be implemented in that city: Thomas, *The Educational and Subsidiary Provisions*, 19.

effectively and procuring necessities for their courses.⁷⁵ In July 1843, St Bartholomew's Hospital introduced the first really tangible collegiate initiative. Houses adjacent to the hospital were transformed into a college of over twenty rooms, a hall was constructed, and the newly appointed warden, James Paget, took up residence.⁷⁶ In 1847, St Thomas's Hospital also opened a small collegiate establishment in Dean Street.⁷⁷

In France, the collegiate model was viewed favourably by François Guizot, Minister of Public Instruction (1832-1837) and later Prime Minister (1847-1848). Like North, Guizot drew a distinction between Oxford and Cambridge and many French schools such as the Paris Faculty of Medicine. He noted that the lack of supervision coincided with a sudden flurry of temptations at the precise period when students needed to focus and dedicate themselves to starting their studies properly.⁷⁸ He recommended that medical students be grouped in one or several colleges where their studies could be monitored.

For most French medical reformers, however, concerns over the material and moral well-being of students raised by North and Guizot were of secondary importance. The complete liberty which medical students enjoyed inside and outside the medical school, jeopardising the efficiency of the educational system and weakening the image of the profession, was their main concern. Delasiauve, for example, deplored the 'fatal idleness' that plagued medical students and asked that they be made accountable for their time spent outside the school.⁷⁹ To curtail their independence, which he saw as the main cause of most failures, he suggested a system similar to the collegiate model. The main Parisian hospitals would employ and house all medical students and submit their schedule to regulations.⁸⁰ This plan would benefit both the hospitals, which would gain a free but educated workforce, and the students, who would be provided with

⁷⁵ W. A. Guy, *On Medical Education: Being a Lecture Delivered at King's College, London, at the Opening of the Medical Session, 1846-1847* (London, 1846), 8.

⁷⁶ N. Moore, *The History of St Bartholomew's Hospital* (London, 1918), 2, 824.

⁷⁷ F.G. Parsons, *The History of St Thomas's Hospital* (London, 1932-36), vol. 3, 95.

⁷⁸ F. Guizot, *Mémoires pour servir à l'histoire de mon temps* (Paris, 1858-67), vol. 3, 140, quoted in E. Harraca, *Des Conditions de résidence à Paris de l'étudiant autrefois et aujourd'hui* (Paris, 1925), 85-6.

⁷⁹ Delasiauve, *De l'Organisation médicale*, 94.

⁸⁰ *Ibid.*, 93; 227.

discipline, guidance and a real clinical experience. However, an adequate re-organisation of courses was necessary to enable pupils to come and attend lessons at the Faculty from distant college-hospitals. A more partial collegiate system was suggested by Sylvain Eymard. He advocated that students be resident at the school for the first two years to establish good working habits while they were young and vulnerable to dissipation.⁸¹ Philippe Buchez, in a treatise entitled *Introduction à l'étude des sciences médicales*, suggested a less drastic reform. Of the English collegiate system, he kept only the gown and the institution of tutors. He asked simply that students be subject to close surveillance by the *agrégés*. This measure probably found little favour among *agrégés*, who were attracted by the prospect of teaching, not serving as wardens to uncooperative students.⁸²

In Paris, the main obstacle to the establishment of a collegiate system was the lack of interest from the government. Although collegiate systems existed in small institutions like the École Normale Supérieure and École Polytechnique (whose graduates would enter the public administration), the government could not justify a similar investment for a liberal profession whose members were quite unwilling to abandon their freedom.⁸³ Guizot avoided this problem in part by recommending that colleges be privately funded, which suited his *laissez-faire* ideas.⁸⁴ However, with the Revolution, French higher education fell under the control of the government, leaving no role for private investment. Furthermore, only a government-funded project could hope to house the entire medical student population in the crowded Latin Quarter.⁸⁵ Moreover, any private initiative would be confronted with existing monolithic establishments—the Faculty of Medicine and the General Council of Hospitals—with which cooperation would be difficult. These two institutions limited their own reforms to the

⁸¹ S. Eymard, *Réponses succinctes aux principales questions que doivent résoudre prochainement le Congrès médical de Paris et les deux Chambres* (Paris, 1845), 14.

⁸² P. Buchez, *Introduction à l'étude des sciences médicales* (Paris, 1838), 229-30.

⁸³ Students at the École Normale Supérieure were assigned a room in the school buildings, while their colleagues at the École Polytechnique lived under a strict, military regime.

⁸⁴ Caron, *Généralisations romantiques*, 131.

⁸⁵ Delasiauve, *De l'Organisation médicale*, 170-1.

improvement of instruction but never sought to reform student housing; thus private lodgings remained the only option.

Private accommodation and supervision

Parents knew that private accommodation often failed to provide sufficient guarantees of comfort and supervision, and were aware that medical schools could not regulate the life of students who chose this type of accommodation. In 1828, the Council of the University of London acknowledged that it would not attempt to lay down rules for the conduct of students beyond the university walls which they could not enforce. However, the University secretary kept a register of safe and respectable private accommodation. Housekeepers willing to take boarders and gain accreditation from the university had to pledge that they would regulate the pupils' hours, ensure their attendance at church, and would not suffer 'gaming or licentious conduct'. Students were also advised to make thorough enquiries prior to taking up residence with a non-accredited landlord.⁸⁶

Most schools did not offer this service and students were left with the difficult task of finding adequate lodging by themselves. Instead of renting a cheap room from a landlord with whom they would have hardly any contact, students were strongly advised to lodge and board 'in some respectable family'. They were assured that the extra cost would be largely compensated for by the gain of time, the preservation of healthy habits, the protection from solitude, and above all from the dangers of a life of pleasure and its accompanying expenses.⁸⁷ The family of a medical man was considered to be one of the best boarding options whereby, in addition of lodging in a respectable house, the young man could gain much experience and advice during

⁸⁶ *The Medical Calendar*, 65-6.

⁸⁷ Potts, *The Hospital Pupil's Guide*, 27-8. J. Lucas, *A Candid Inquiry into the Education, Qualifications and Offices of a Surgeon-Apothecary* (Bath, 1800), 53.

casual evening conversations with his host.⁸⁸ Some hospital officers and professors offered room and board to a few students in addition to their own apprentices. At University College a list of the lecturers with available rooms in their residences could be obtained from the secretary at the beginning of the year.⁸⁹ Although it presented advantages for study, the house of a medical man did not necessarily offer a more rigid environment. John Crosse, who lived in Sir Charles Bell's home for a year, was able to go frequently to the theatre and the tavern.⁹⁰

In Paris, private accommodation at a professor's was not as common as in London, but other supervised options were available. Several 'private schools' were created by doctors concerned with the welfare and proper education of students. In the early nineteenth century, the Collège des étudiants en médecine, on rue St-Victor, welcomed resident and non-resident pupils under the patronage and scientific direction of reputed men like Dupuytren, Marjolin and Magendie. In the 1830s Alphonse Sanson created the École auxiliaire et progressive de Médecine, rue de l'Estrapade, which Delasiauve mentioned as one of the best of its kind. Similar establishments were founded by the Parisian doctors Alexandre Baudrimont, A. Lagasquie and Jacques Maisonneuve.⁹¹ These institutions could only operate on a small scale and were generally short-lived. Contemporary observers attributed their demise to the incompatibility between their regulations and the freedom of thinking required by medical studies, which implied a free disposal of time and movement.⁹²

Other institutions could also provide lodging with a certain amount of control. For his first term in Paris, Paul Broca's parents enrolled him as a supervisor (*pion*) at the Collège Sainte-Barbe,

⁸⁸ Being apprenticed to a London master was the best way to obtain good accommodation in the English metropolis. Hampton Weekes, for example, lived with Richard Whitfield, apothecary to St Thomas's Hospital: Ford, *A Medical Student at St Thomas's Hospital*.

⁸⁹ *The Medical Calendar*, 65.

⁹⁰ Crosse, *A Surgeon in the Early Nineteenth Century*, 33-4.

⁹¹ Delasiauve, *De l'Organisation médicale*, 170. Maisonneuve, the Clamart demonstrator, provided fully-comprehensive boarding aimed mainly at English students in Paris. He boarded and lodged medical students, provided them with subjects for dissections and surgical operations, superintended the whole course of their studies, offered access to his laboratory, his library and private collection of anatomical preparations, and entered them for the different courses of private lectures for the sum of 150 Francs per month: Wiblin, *The Students' Guide*, 9. See also [Lycée national], *École préparatoire de médecine, fondée au Lycée national, rue de Monceau, no. 9, faubourg du Roule* (Paris, 1835).

⁹² P. Rayer, *Faculté de médecine de Paris. Séance de rentrée de la Faculté, le 17 novembre 1862. Allocution du Doyen Rayer* (Paris, 1862).

a renowned establishment for schoolboys, a few streets away from the Faculty. Broca was provided with room and board in exchange for a few hours spent supervising the young pupils. Although it appeared an ideal lodging solution, this choice revealed several drawbacks. The supervision conflicted with Broca's schedule at the Faculty and hindered his studies. Furthermore, Sainte-Barbe did not present the security his parents envisaged. The other supervisors were 'almost all debauched, idle and spendthrift materialists' and Broca was allowed to spend the night out once a week.⁹³ Broca quickly asked his parents for permission to take up lodgings of his own and joined the scores of medical students who lived in private accommodation, free from any direct parental or tutorial supervision. This first step into adulthood and its responsibilities generated a real sense of possession and control: 'I have my own address' he wrote joyfully to his parents on 13 April 1842, 'I am launched into my life as a bachelor. Now I have *my own home* for the first time in my life; I am now sitting in front of *my* fire; I am writing accompanied by the sound of *my* kettle.'⁹⁴ Shephard Taylor echoed the same sentiment. After visiting his friend Beverley's lodgings in Somerset House at King's College—which he described as a single room with an invisible bed-cubicle he had mistaken for a closet—he wrote in his diary: 'On the whole, I much prefer my own apartments at Dyer's Buildings, where I am monarch of all I survey, and my own master to boot'.⁹⁵

Solitude was the source of most dangers, enticing students to find relief in outside activities. The many drawbacks of private accommodation were thus avoidable if lodgings were shared with a friend, especially a more experienced and diligent one. After a few months on his own, Broca rented a two-room apartment with his friend Roudier, where they shared the heat of a single fire and the light of the same candles.⁹⁶ These arrangements, which had their financial advantages, were common in Paris. In London, however, they were relatively rare according to

⁹³ Broca, *Correspondance*, vol. 1, 52-6.

⁹⁴ *Ibid.*, 62-3.

⁹⁵ Taylor, *The Diary of a Medical Student*, 2.

⁹⁶ Broca, *Correspondance*, vol. 1, 100.

Wright, because ‘they often proved unsatisfactory’, the English students probably judging that the sacrifice of personal space and comfort was not worth the financial saving.⁹⁷

Restaurants and eating-houses

Breakfast was usually eaten at home, either before lessons or hospital rounds, or between two lessons. Lunch, however, was almost always purchased in the city. Most days, students only had a few minutes to eat and it was common to see a few of them finishing their bread and cheese, or a pork pie, on the benches of the lecture theatre.⁹⁸ Even when they had time for lunch, the proximity of dissections tended to put students off a heavy meal. Wright wrote that dissecting tended to give him a tremendous appetite; yet once at the chop-house, the smells from the cooked meat took all that appetite away. The dishes even tasted of the body he had just dissected, and he felt ‘utterly wretched’.⁹⁹

Often, only dinner was a full meal. Students who boarded in a family possessed a great advantage over their fellow pupils because they could expect a regular set of quality dishes every evening. The less fortunate ones usually dined in a restaurant or an eating-house. In Paris, a good dinner could be obtained for 1 to 1.25 Francs in the Latin Quarter restaurants. In these student establishments, quantity often prevailed upon quality. Viot’s and Flicoteaux’s, for example, served soup, beef-steak with potatoes, and an unlimited amount of bread for about 0.80 to 0.90 Francs. For a lesser amount the impecunious student could simply soak an unlimited amount of bread in a bowl of soup.¹⁰⁰ *Traiteurs* (take-away restaurants) also provided a cheap alternative, the convenience of having dishes brought to your apartment making up for cold food.

More students boarded in London than in Paris, which partly explains why we know less about their eating habits. In London, student meals similarly offered quantity but lacked quality

⁹⁷ Wright, *Medical Students of the Period*, 128.

⁹⁸ G. de Closmadeuc, ‘Souvenirs d’un étudiant en médecine de 1848’, *Chronique médicale*, 25 (1918), 197. Donné, ‘L’étudiant en médecine’, 383.

⁹⁹ Wright, *Medical Students of the Period*, 25.

¹⁰⁰ Cabanès, *Mœurs intimes du passé*, 471.

and variety. Shephard Taylor noted in his diary that he was getting ‘dreadfully sick of the eternal College Pudding at Upton’s, one of the most insipid compounds’ he had ever tasted. Looking to ‘satisfy his gustatory needs in some other quarter’ he discovered that the macaroni puddings at Browne’s Restaurant near Temple Bar were ‘decidedly even worse’ and decided to try his luck elsewhere.¹⁰¹ Like many others, Taylor felt the need to indulge, from time to time, in a really good meal taken in a quality restaurant. One evening he went with his cousin Dewing and dined ‘extravagantly’ for 2s.6d.¹⁰² For a real change, Parisian students crossed the Seine and headed for the Palais Royal, where the reputable restaurants around the Théâtre Français offered the best food in the city.

Depression, disease and death

The daily life of a student entirely dedicated to his medical education could easily foster melancholy. Dr Munaret, a countryside practitioner, wrote that medical studies, with their ‘nostalgic sadness, risks of acclimatisation, sleepless nights, hardships and the dangers engendered by cuts from scalpels and putrid emanations’ remained a sombre memory which he associated with the misery and death alongside which he had worked for several years in the hospital.¹⁰³ The excitement of entering another phase in life, of making friends and acquiring knowledge was also tempered by loneliness and homesickness. Although most students had experience living away from home, complete solitude was a new element. During their apprenticeship or secondary education they had enjoyed the presence of a master and his family or fellow-pupils and friends. Distance from family and the uninterrupted flow of courses made it unlikely that they would return home for short visits. Loneliness under difficult living conditions easily led to depression, especially if it was accompanied by poor health. Thomas Hodgkin’s

¹⁰¹ Taylor, *The Diary of a Medical Student*, 15-16.

¹⁰² *Ibid.*, 79.

¹⁰³ Munaret, *Le Médecin des villes*, 52.

correspondence reveals his parents' anxiety about his physical condition.¹⁰⁴ According to Bellot, Hodgkin's early years of college were a time of depression, and the same 'gloominess, strain, overwork and consequent ill-health' affected Joseph Lister.¹⁰⁵ One of the more serious consequences of mental and physical exhaustion, the high rate of death from tuberculosis among medical students, was often blamed on sitting for hours in a cold room.

A.P. Requin, who dedicated his *agrégation* thesis to medical pupils' hygiene, argued that the government should publish a manual on the many risks of disease that medical students were exposed to and distribute it to all new pupils. Acclimatisation meant that the first few weeks in the metropolis were the most dangerous. The sudden change from healthy lodgings and good food to small, humid and badly aired bedrooms and poor quality meals acted adversely on adolescents whose constitution had not yet reached full maturity.¹⁰⁶ Diarrhoea accompanied by colic and dyspepsia affected one in twelve students according to the hygienist Parent-Duchâtelet, who blamed the disorder on dissections. Requin therefore advised students to delay dissecting and visiting hospital wards until they were firmly established in the metropolis, to avoid adding anatomical and pathological acclimatisation to geographical adaptation. Students were also more at risk if they were physically weak. In his guide, Jean Vincent Vaidy advised them always to eat a solid breakfast before dissecting and to avoid the company of women and tiring activities like dancing the night before.¹⁰⁷ In London, despite better direction and control the high student mortality was also blamed on dissections. According to Wright, statistics demonstrated that a certain number died annually of 'dissecting-wounds or... some disease, which found them debilitated by dissections'.¹⁰⁸

¹⁰⁴ Manuscripts of the Hodgkin Family, MS PP/HO/D/102 (Letter to Thomas Hodgkin from his mother, 15 Feb. 1820).

¹⁰⁵ Bellot, *University College London*, 294-5.

¹⁰⁶ A. P. Requin, *Hygiène de l'étudiant en médecine et du médecin* (Paris, 1837), 6-8.

¹⁰⁷ Vaidy, *Plan d'études médicales*, 44.

¹⁰⁸ Wright, *Medical Students of the Period*, 21.

The death of a medical student was therefore not an uncommon event.¹⁰⁹ In 1843, a Parisian student, Gustave François Ganne, died from a cut from a scalpel, after several weeks of illness. Since these cuts were frequent but fortunately not always lethal, he had not wanted to alarm his family unnecessarily, but he never recovered and was buried without his parents even knowing his fate.¹¹⁰ His eulogy, like that of most medical students', painted him as a victim of his own dedication to science, explaining that he had inoculated himself with death while examining the structure of life.¹¹¹ The obituaries of medical students who died while treating patients during the two outbreaks of cholera in 1831-32 and 1849 contain similar references to their devotion to medicine.¹¹²

ACTIVITIES OUTSIDE THE MEDICAL SCHOOL

Useful occupations and dangerous pleasures

In contrast to Munaret's gloomy memories, Alfred Donné exclaimed that the years spent at medical school were the best period in life, a time of blithe existence and freedom during which students lived aimlessly from one day to the next among their friends.¹¹³ The difference between these two experiences may have stemmed from the employment of free time. Whereas Munaret was entirely devoted to his work, Donné counterbalanced his daily toil with the companionship of other pupils and the delights of the theatre. Students spend their day

¹⁰⁹ Among the 1,000 pupils studied by Paget, 41 died during their studies in 1839-1859: Paget, 'What Becomes of Medical Students?', 239.

¹¹⁰ A. Aumétayer, *Discours prononcé sur la tombe de M. Gustave François Ganne, étudiant en médecine* (Paris, 1843), 6. Like many provincial students living on their own he had been attended by one of the Faculty professors. An early regulation of the École de Santé, instituted when students were considered as prospective military surgeons, required that a sick student be attended by one of the professors: A. Portier, *L'Enseignement médical à Paris de 1794 à 1809* (Paris, 1925), 22. Most correspondences and diaries mention one or several cuts from scalpels while dissecting. Broca similarly hid such a cut from his family until it had healed: 'Now that it has passed, I can tell you that I carelessly stung myself under a fingernail with a pin full of pus while making a dressing. It produced a small whitlow which I treated in time and was almost nothing. It is a lesson for the future': Broca, *Correspondance*, vol. 1, 117; see also London, WLHUM, Budd Family Papers, MS 5153, and Diary of an Unknown English Medical Student in Paris, MS 7147.

¹¹¹ *Notice sur un jeune étudiant en médecine [Alexis Bouteaux], mort à Paris le 10 janvier 1850* (Plancy, 1850).

¹¹² Palluault, 'La Société anatomique', 118-19.

¹¹³ Donné, 'L'étudiant en médecine', 391.

attending courses, dissecting, visiting hospital patients and reading books, and they were advised not to neglect the need for respite between times of concentrated study:

Social intercourse, active exercise, bodily rest and mental repose are, each in its turn, as essential to your well-being as they are to your personal comfort; and you must endeavour so to eke out your time as to give to each its fair share, without interfering with the hours that ought to be devoted to work.¹¹⁴

Although professors recognised the necessity of dedicating a few hours to extra-curricular activities every week, many worried about how this time was used.¹¹⁵ Whereas French professors rarely interfered with students' lives outside the medical school and refrained from giving advice on the best way to spend leisure time, English professors did not show any reluctance to venture into paternal recommendations. Without referring directly to which dangerous sources of pleasure to avoid, they presented serious activities from which one's studies and career could benefit. They favoured scientific pursuits such as botany and mineralogy, which exercised the students' methodological faculties, and useful readings on philosophy, religion and morality, which would strengthen their gentlemanly status. In an 1857 address at St George's Hospital, Henry Fuller told students that while searching for a suitable recreation for the mind, they should not ask themselves how to occupy their time, but rather how to organise it to 'attain the acquirements necessary in their position as gentlemen'.¹¹⁶

However, the inherent difficulties of medical studies did not encourage serious pastimes. Parkes remarked, in his address on self-discipline, that it was no small sacrifice to 'forego the attractions of music and the stage, and turn sternly to the appointed tasks of the hospital and the dissecting room', or forget the deep green of country fields to enter the dead-house.¹¹⁷ Unlike studies, serious distraction were not mandatory, and students were tempted to seek more trivial ones. Abandoning the demanding school routine for another sober occupation was not as

¹¹⁴ Fuller, *Advice to Medical Students*, 23-4.

¹¹⁵ Only Lawrence Potts denied students the necessity of this break, arguing that it was ill-suited to the needs of the intellect. He believed that a medical man should not live too luxuriously, that his was 'a life of study and self-denial': Potts, *The Hospital Pupil's Guide*, 84. Holmes disagreed: students would soon be entangled in serious professional matters which would dull their 'appetite for innocent gaiety' and they must cultivate the distractions which 'save the mind from monotony and moroseness' while they could: Holmes, *The Introductory Address*, 20.

¹¹⁶ Fuller, *Advice to Medical Students*, 23-4.

¹¹⁷ Parkes, *On Self-Training*, 28-9.

appealing as a walk in a park or a night at the theatre. Delasiauve lamented that many students, yielding to the attraction of pleasure or the persuasion of friends, wasted ‘irreplaceable time in cafés, ball-rooms, and in grievous liaisons’.¹¹⁸ The pervasive influence of the city was constantly blamed for transforming the purest and most noble young man into a disgraceful and spendthrift medical student.¹¹⁹ William Bowman, a King’s College professor, therefore advised students to foresee intervals of leisure time and plan a ready occupation when they occurred, so as not to be lured into dangerous recreations.¹²⁰

The influence of fellow students was also dangerous. Like his contemporaries, Potts cautioned pupils against ‘the contagious influence of example’ and against those who pretended to have achieved success in their studies while deserting the classroom.¹²¹ Idle pupils tried to hide their behaviour from relatives or acquaintances likely to report to their parents and remained within a closed circle of like-minded friends. To avoid becoming part of such a dissolute group one had to forge, from the outset, strong and durable friendships with diligent students. Fuller therefore entreated students not to be too hasty in making new friendships among their fellow-pupils. True gentlemen, he explained, were usually of reserved disposition and ‘not over anxious to cultivate unknown acquaintances’, but in due time they would reveal themselves by their conduct in the lecture-room, the dead-house and the wards. Idle students, on the contrary, would try to convince their more serious companions that there was no harm in temporary idleness and self-indulgence.¹²² However, the slightest moment of apathy could produce devastating consequences. Delmence, the main character of Legrand’s novel *L’étudiant en médecine*, offers a good literary example. In his first term he took great care to distinguish himself by his work and to socialise with other students who, like him, disliked cards and ball-rooms. Following an inheritance, he started to spend a little more than his companions, quickly attracting a group

¹¹⁸ Delasiauve, *De l’Organisation médicale*, 94.

¹¹⁹ Parkes, *On Self-Training*, 28-9.

¹²⁰ W. Bowman, *Thoughts for the Medical Student. An Introductory Address, Delivered at King’s College, London, October 1, 1851, on Occasion of the Opening of the Twentieth Session of the Medical Department* (London, 1851), 29-30.

¹²¹ Potts, *The Hospital Pupil’s Guide*, 26.

¹²² Fuller, *Advice to Medical Students*, 6-7.

of pupils 'less inclined to listen to their masters than their mistresses' who led him to partake in their more relaxed life.¹²³

Outside their studies, new students largely spent their leisure time writing, reading, visiting museums and following other individual pursuits. In their solitude, they often dedicated a good share of their free time to correspondence with their family, describing their new environment, sharing their concerns and needs, enquiring about the friends and relatives they had left behind, and asking for articles of clothing and food to be sent to them.¹²⁴ Many spent part of their evening reading literature or philosophy. Some students, like Shephard Taylor, kept a diary while others tried their hand at poetry and prose, without always the talent of Keats or Sainte-Beuve.¹²⁵ Music was another prized activity, and student lodgings often echoed with the sound of instruments. Broca, for example, liked to play the French horn early in the morning, to the great annoyance of his neighbours.

In London, students were encouraged to take up 'manly' activities involving physical exercise, such as rowing, cricket and football, based on the model provided by the Oxford and Cambridge colleges.¹²⁶ However, with no school clubs or teams organised in the metropolis until the 1860s, students had to find their own opponents and grounds. A comparable sporting tradition did not exist in Paris and physical exercise was often limited to walking.

In both capitals, exploring the city and visiting its most striking monuments was one of the most exciting pastimes for provincial students. Shephard Taylor, like many of his friends, enjoyed the cultural heritage of London, occasionally visiting Buckingham Palace and the British Museum, and watching parliamentary debates.¹²⁷ French students similarly paid visits to the

¹²³ A. A. Legrand, *L'étudiant en médecine* (Paris, 1824), 89-91.

¹²⁴ Parents often sent parcels of food and clothing, which relieved the student from the necessity of further purchases.

¹²⁵ Laennec, for example, wrote poems in old Breton while Étienne Ruz de Lavison published plays.

¹²⁶ In Holmes's view these activities were 'the best preservatives from vice and dissipation': Holmes, *The Introductory Address*, 21.

¹²⁷ Taylor, *The Diary of a Medical Student*, 25.

Assemblée Nationale, the Louvre and the Tuileries Palace. On Sundays, in spring and summer, students often ventured outside the city for recreational botanic excursions.¹²⁸

Generally, after the first few months, students discovered less innocent and more costly pastimes. Among them theatre, ranging from classical plays to fashionable comedies, clearly ranked as the favourite activity, and if excess refreshments were avoided, it represented the cheapest form of entertainment.¹²⁹ The play-houses at Covent Garden and Drury Lane, or around the Palais-Royal, attracted a loyal following of medical students. Although Taylor wrote in his diary that he had ‘commenced his career of dissipation’ by going to the Strand Theatre, students did not generally see theatre as an activity of which their parents would disapprove, if attendance was no more than occasional.¹³⁰ Weekes and Broca, for example, mentioned the plays they had seen in their correspondence. They would have probably refrained from mentioning less virtuous but very popular activities, such as dancing, billiards and cards. At night, many students liked to spend time at dancing-halls such as La Chaumière and La Closerie des Lilas in Paris, or the Chelsea Alcazar and Evan’s in London. Whereas theatre offered recreation for the mind, dancing provided both physical amusement and, probably more importantly in their own eyes, contact with persons of the opposite sex, albeit not necessarily the most respectable ones.¹³¹

Billiards and card games, available in taverns and other places of amusement throughout both capitals, were particularly dangerous for students’ finances because the competitive aspect could easily lead to gambling.¹³² Although testimonies about gambling are rare, Véron’s memoirs illustrate how a student could quickly become addicted. Introduced to the Palais-Royal gambling-

¹²⁸ Students often chose to return home for the holidays. The Christmas period only offered two weeks to visit family and friends, but the two months of summer allowed time to visit parts of the country on the way home.

¹²⁹ Potts condemned all types of leisure activities, but was particularly adamant against theatre, a pastime which wasted students’ time and money, and ruined their health (sleepless nights): Potts, *The Hospital Pupil’s Guide*, 49.

¹³⁰ Taylor, *The Diary of a Medical Student*, 2.

¹³¹ In Turin, medical students all lived in collegiate accommodation at the beginning of the nineteenth century; by mid-century they had to select a pre-approved boarding-house and were prohibited from entering theatres, dancing-halls, cafés and gambling-houses: H. Combes, *De la Médecine en France et en Italie. Administration – Doctrines - Pratique* (Paris, 1842), 110.

¹³² Medical students at the Middlesex Hospital and University College, for example, frequented a house in Bedford Square which provided billiards, cards and skittles: ‘100 Years Ago’, 83. In Paris, the Palais-Royal area offered many game-rooms to the aficionado.

rooms by one of his friends in 1818, Véron soon became completely engulfed and, after some spectacular gains, dedicated several months of his year as an *externe* to playing.¹³³ A lucky streak enabled him, the following year, to live the high life in restaurants and theatres while pursuing his service as an *interne*. He quit playing for a few months, vowing never to gamble again, but could not help returning to the Palais Royal and eventually lost all the money he had won.¹³⁴

Student socialisation

Whereas individual pursuits could occupy a student's leisure time, they failed to provide the socialisation and interaction of family and friends. Collective recreations, however, reduced solitude and homesickness, multiplied enjoyment and provided the basis for closer cooperation during studies. Amidst the amusement of an evening, students could share experiences, compare medical knowledge and glean information and advice.

The relatively small number of students in each London hospital school fostered the growth of communities.¹³⁵ Wright noted that although there was no real college life, groups of students with similar tastes quickly formed and 'chummed' together.¹³⁶ In the French capital, students tended to form groups according to their home province and the proximity of their Parisian lodgings, like Broca, who quickly renewed relationships with his old friends from the Sainte-Foy *collège* when he arrived in Paris.¹³⁷ These groups tended to study together, working on parts of the same corpse, sitting next to each other at lectures and attending the same operations

¹³³ 'For three months, I was a professional gambler': Véron, *Mémoires d'un bourgeois de Paris*, 268.

¹³⁴ *Ibid.*, 275.

¹³⁵ In London, student socialisation was also combined with hospital culture. Once a year students offered a dinner to their professors. In 1824, for example, the professors and more than a hundred students from St Bartholomew's Hospital attended a dinner at the Albion Tavern in Aldergate Street: 'Dinner of the gentlemen educated at St Bartholomew's Hospital', *The Lancet* (1824), iii, 179-82. At the start of the session of 1829, University College medical students wished to adopt this tradition. However, Charles Bell, one of the anatomy professors, believed that the standards of education that University College aspired to were threatened by such a suggestion—however well intended it was—and wrote to the Council to prevent it. Bell was afraid that the dinner would 'lead to a relaxation of discipline' and end 'in scenes not creditable to the schools': W. R. Merrington, *University College Hospital and its Medical School* (London, 1976), 8. University College students were also invited by the professors to meet for regular *conversazione* in the Museum over tea and coffee: Bellot, *University College London*, 181.

¹³⁶ Wright, *Medical Students of the Period*, 125.

¹³⁷ Broca, *Correspondance*, vol. 1, 15.

and post-mortems. Students who held hospital positions and had already completed the course requirements enjoyed greater autonomy and benefited from the best opportunities for socialisation. While on duty, they were offered their evening meal and could invite friends to join them in the hospital common room.¹³⁸ Free dinners and beer certainly encouraged fraternisation.

Beyond courses, which were given at appointed times, students liked to keep their schedule flexible and the evening's pursuits were often decided on the spur of the moment. Douglas, in his novel *Adventures of a Medical Student*, claimed that students embraced with equal passion the arduous study of a difficult scientific question and the 'pursuit of serious fun, roistering and devilment':

Equally alert have I seen one at Chemistry and cricket, Physiology and football, Surgery and stick, milling and Materia medica, Doctoring and drinking... For my part, I dropped into the heart of a select circle of youths, a regular clique, equally prepared for whatever might turn up of an evening—hard study, oysters, larking or love-making. We used to honour with our patronage a peculiar house of entertainment where the senses were ravished with whiskey-punch, Scotch ale, and the notes of a horrible old spinet, dignified with the name of piano.¹³⁹

Outside the school, students enjoyed spending their leisure time in groups, whether it be at the theatre or at the tavern for a 'punch party'.¹⁴⁰ During the day, cafés and coffee-houses represented a favourite meeting-place where one could read newspapers and warm up with a hot drink. Restaurants were also a main place of sociability and resounded with conversations about lectures and professors' talent. In the evening, many students preferred the more relaxed and permissive atmosphere of an 'estaminet', a punch-house or a tavern, where they could smoke and drink as they wished. Inebriety led to the recollection of pranks and jokes from the dissecting-room and shocked the other customers. Sometimes students would spend the evening in a friend's room, sharing the contents of a hamper sent by his family, playing cards, singing and smoking cigars.

¹³⁸ Wright, *Medical Students of the Period*, 129. In France, evening meals were an essential part of the 'salle de garde' culture which bound *internes* together: A. Cabanès, *La Salle de garde: histoire anecdotique des salles de garde des hôpitaux de Paris* (Paris, 1917).

¹³⁹ Douglas, *Adventures of a Medical Student*, 37-8.

¹⁴⁰ Wright, *Medical Students of the Period*, 134. Wright mentioned that wine parties were not as common in London as in Cambridge, for medical students were not usually as rich as university pupils.

By the early 1830s pipes and tobacco had become very fashionable among medical students. According to Wright, 'Come and have a pipe' was a common invitation among friends.¹⁴¹ Many students started smoking in the dissecting-room to mask smells and eliminate nausea. Broca indicated that in Paris students smoked freely while dissecting, but this liberty was probably restricted to the pavilions where students worked without a demonstrator. Although smoking was not allowed in the London dissecting-rooms, some still pulled out pipes and cigarettes as soon as the demonstrator left the room.¹⁴² Many who started to smoke in the dissecting-room soon grew addicted but would have to give up that habit when they became practitioners, lest the smell of tobacco offend their patients, especially women.¹⁴³

Social circles

Outside his circle of fellow-pupils, the new medical student could often feel quite isolated. Unless he had family or friends in the metropolis, he had no place where a warm welcome could break a moment of solitude. He usually had a few letters of introduction, which served as invitations to influential families, but these acquaintances often limited their civility to 'a stiff dinner now and then'.¹⁴⁴ During the first months, it was difficult to forge and maintain strong relationships in polite society. Solitude and gloominess particularly emerged on Sunday:

Happy the student who has friends in the West End or at Richmond or Surbiton to invite him to spend Sunday with them; for after he has been to Church and written home, he feels so dull that he does not know how to bear himself.¹⁴⁵

To initiate relationships which would help them set up practice in the metropolis or the countryside, the most enterprising students sought to acquaint themselves with reputable families. Professors and senior students were the natural channels through which one could be introduced into wealthy and prominent families likely to provide recommendations. Sometimes a

¹⁴¹ In the 1860s, Wright preferred cigarettes to pipes because they were finished in minutes and no time was lost: Wright, *Medical Students of the Period*, 25.

¹⁴² *Ibid.*, 30.

¹⁴³ Requin, *Hygiène de l'étudiant en médecine*, 51-2.

¹⁴⁴ Wright, *Medical Students of the Period*, 125.

¹⁴⁵ *Ibid.*, 123.

recommendation could be obtained via family or business relationships, which a father was always anxious for his son to cultivate. Broca's parents, for example, solicited the Protestant network to obtain letters of introduction for Paul to visit the hospital surgeon Gustave Monod and the Faculty professor Nicolas Marjolin.¹⁴⁶ Similarly, Thomas Hodgkin received introductions from his professors in Edinburgh to Parisian professors and aristocratic families like the Lasteyries.¹⁴⁷ To maintain relationships with influential people, students needed to call upon them regularly and offer presents and news from their family. Long walks through the city represented an expense of time which was sometimes fruitless when these people were absent.

Medical pupils were encouraged to cultivate social activities outside the closed student world. In their professional life, they would be called upon to deal extensively with men and women of all social standings and therefore needed to develop and maintain 'a keen interest in human nature, and an intimate knowledge of men's feelings and business.'¹⁴⁸ They were advised to take advantage of the moments of leisure spent in genteel society to acquire the decency and manners that would introduce them as gentlemen of liberal education.¹⁴⁹ Cultivating a social life usually implied attending dinners and going to dance-parties. After a formal meal, students would dance, play cards, read prose and poetry and would display their knowledge, humour and eloquence in light conversation. These parties also presented an opportunity to meet persons of the opposite sex. Many medical students married into medical families and the acquaintances made one evening might become future marriage prospects. Again, social constraints were more relaxed in France. In Paris, for example, a young man did not need to have been formally introduced to a young lady to dance with her and encounters were therefore easier.

¹⁴⁶ J. Schiller, *Paul Broca, explorateur du cerveau* (Paris, 1990), 34.

¹⁴⁷ Manuscripts of the Hodgkin Family, MS PP/HO/D/A154 (Letter to Thomas Hodgkin from his father, 15 Oct. 1821).

¹⁴⁸ Holmes, *The Introductory Address*, 20-1.

¹⁴⁹ J.-J. Leroux des Tillets, *Séance publique de la Faculté de Médecine de Paris tenue le 14 novembre 1810 pour la rentrée des écoles; Discours prononcé par J.J. Leroux* (Paris, 1810), 27.

Women, politics and religion

The social values and historical context of both countries influenced the way medical students behaved in society. While English and French pupils similarly enjoyed the pleasures of theatre, drink and dancing they differed on three essential points: relationships with women, religion and politics. Greater liberty permitted Parisian students to establish and maintain close relationships with women, get involved into politics and display strong anti-clericalism. By contrast, English students limited their relationships with women to casual encounters, were not encouraged by the political context to display their ideas in noisy demonstrations, and tended to respect religion much more than their French counterparts.

Feminine presence

Parents—especially mothers—often believed that once deprived of the feminine atmosphere of home their son would become coarse and behave badly. But despite the absence of women at the medical school students were far from living in an entirely masculine world. Parisian medical students were often depicted accompanied by a young lady: the *grisette* or *carabine* (usually a dressmaker's apprentice or shop assistant).¹⁵⁰ Student and *grisette* generally met at a dancing-hall or in a shop, and soon the unlikely couple spent most of their time together. Donn , himself a medical student, claimed that *grisettes* were not very demanding and that most arrangements did not go further than a few occasional presents, dances at the week-end and a walk in the country on Sundays. Sometimes, however, the young woman moved in with her companion, or took a room on the same floor to maintain the appearance of a separate life. In most Latin Quarter student hotels, the landlord did not dare show himself to be too strict, otherwise students would simply move out. The temporary association between student and *grisette* was mutually beneficial—they shared companionship and affection as well as living

¹⁵⁰ Gavarni, *Œuvres choisies, revues, corrig es et nouvellement class es par l'auteur. Etude de m urs contemporaines. Le carnaval   paris - Paris le Matin - Les  tudiants de Paris* (Paris, 1847). French medical students were nicknamed 'carabins'. The etymology of the word is unsure. It apparently came from the medieval word 'escarabins' which designated the grave-diggers who buried the victims of the plague.

expenses—but often short-lived.¹⁵¹ Cabanès claims that monogamists were the exception, and several of Gavarni's drawings show a student trying to hide his infidelities from his regular *grisette*.¹⁵² Hopes for a long-lasting relationship were minimal as marriage between two young people from such different backgrounds was out of the question. In a play entitled *The Married Student*, a law student pressed by his *grisette* to commit to marriage exclaims: 'But students never marry... Can you seriously imagine a student heading a household, revising his Code while his wife would cook the stew or mend his socks?'¹⁵³ In this uncertain situation if the *grisette* became pregnant she often resorted to abortion or abandoned the newborn baby:

Every one who has visited Paris must be well aware of the depraved habits of French students of law and medicine. They are all conscious of the existence of [the Foundling Hospital] and, as a consequence, always know where they may convey, with impunity, the offspring of the victims of their seduction. It is a well-known fact, in the French capital, that more than one half of the medical and law students have 'une petite maîtresse'.¹⁵⁴

John Wiblin's description of French students' habits leaves no doubt that close relationships between medical students and young ladies were much rarer in London. Indeed, no testimony indicates such an arrangement, which was so common in Paris. Women were not completely out of the mind of students, though. Janet Browne has shown that student magazines of the period made 'timeless allusions to barmaid's bosoms' among references to poor food, landladies and 'Odes to the Rainbow Tavern.'¹⁵⁵ A sketch from *Punch*, for example, also shows a medical student flirting with a young dressmaker.¹⁵⁶ In his diary, Shephard Taylor noted that his cousin Dewing seemed 'to fall in with lovely angels almost every day in the week'. Taylor, who 'seldom came across any of the fraternity', commissioned him to send 'one or two of them' in his direction.¹⁵⁷

¹⁵¹ Donné claims, however, that the student could even teach some anatomy to the young lady, who could then register at the medical school to become a midwife.

¹⁵² Cabanès, *Mœurs intimes du passé*, 468.

¹⁵³ E. Brisebarre, *L'Étudiant marié, comédie vaudeville en 1 acte* (Paris, 1843), 3.

¹⁵⁴ Wiblin, *The Students' Guide*, 48; in 1860, Gallavardin estimated that more than 90% of medical students had a mistress: J. P. Gallavardin, *Voyage médical en Allemagne; polyclinique, doctrine médicale, les universités allemandes, les professeurs, les étudiants (mœurs et coutumes)* (Paris, 1860), 105.

¹⁵⁵ J. Browne, 'Squibs and Snobs: Science in Humorous British Undergraduate Magazines around 1830', *History of Science*, 30 (1992), 2, 168.

¹⁵⁶ See Illustration 14, page 298.

¹⁵⁷ Taylor, *The Diary of a Medical Student*, 25.

Lack of freedom in boarding houses was probably the reason why the libertinism of London medical students did not evolve into established relationships as in Paris. In the English metropolis, students tended to board in smaller numbers in the same house, and their lives were therefore subjected to a closer control. Furthermore, in a society with slightly stricter social values, the presence of a woman was probably a criterion for expulsion from a boarding-house. English students desirous to have the company of women would probably have to go to a dancing-hall or another place of entertainment, where more casual encounters could be made.

Political involvement

Although under Napoleon's reign French medical students were always under the threat of incorporation into the army, as a majority they supported the regime almost until the end. The Bourbon monarchy that followed, however, with its designs to return to pre-revolutionary society, enjoyed no such support. Students were deeply attached to the Faculté de Médecine, one of the Revolution's most prestigious creations. Discontent quickly mounted among students, fuelled by the continual breaches of the terms set in the Charter that defined the role of the King and the rights of Parliament. In November 1822, Abbot Nicolle, rector of the Paris Academy and representative of the King's minister, attempted to give an introductory address to the medical school, but copious hissing and booing forced him to leave. This provided Louis XVIII's government with the perfect opportunity to dissolve the Faculty of Medicine and reorganise it on a basis more favourable to the regime. When it was reopened in February 1823, eleven professors suspected of supporting the rebellious students were replaced.¹⁵⁸ To ensure that students spent their time studying instead of plotting against the monarchy new disciplinary regulations were established. Attendance was monitored by regular roll-calls and certificates of proper behaviour were required. To prevent external political activists from delivering speeches to students before the lesson, access to the theatre was controlled by entry cards. Furthermore,

¹⁵⁸ The dean Jean-Jacques Leroux des Tillets was among those who lost their position.

the doors opened fifteen minutes before the course and closed immediately thereafter. Students were also threatened with expulsion if connected to political activity within the school. Although the rebellious movement lost some of its momentum, students continued to complain about the poor quality of the professors imposed on the school in 1823.

The legitimist regime became even less popular under Charles X and many students took part in the July 1830 demonstrations that led to his exile and replacement on the throne by Louis-Philippe. Students played a crucial role in the three days of fighting and became temporarily a force to be reckoned with.¹⁵⁹ Louis-Philippe sought to thank medical students by offering four Légion d'Honneur crosses, whose holders were to be selected by a vote amongst the pupils. However, many students had fought for a Republic and frowned upon the new monarchy that had emerged as a political compromise. They therefore refused the crosses and also declined to accept them collectively in the name of the Faculty but used their temporarily strong position to demand some changes and improvements to medical education.¹⁶⁰ Consequently, the government reinstated the professors who had been dismissed in 1822 and the disciplinary regulations were no longer enforced. Most importantly the *baccalauréat ès-lettres* ceased to be required until the twelfth term matriculation, which had the unforeseen consequence of bringing to the Faculty scores of impecunious and rebellious prospective *officiers de santé*.¹⁶¹

Despite their part in the 1830 Revolution, medical students soon found themselves again in opposition to the regime. In 1832 and 1833 they supported new popular revolts and the Faculty of Medicine remained a centre of protest. Orfila, dean of the Faculty of Medicine, described in his unpublished memoirs how economic and political factors combined to produce unrest at the Faculty:

¹⁵⁹ Several students were killed on the barricades, including two from the Faculty of Medicine. Diday claims that students almost constituted a fourth power during the following few months: Diday, 'Les récréations', 20.

¹⁶⁰ J. Orfila, 'Troubles à la Faculté de médecine pendant le décanat d'Orfila', *Bulletin de la Société française d'histoire de la médecine*, 27 (1933), 170.

¹⁶¹ Among measures of a more practical nature, the opening hours of the library were extended. Students had also requested to be allowed to visit the wards at the Maternité hospital: P. Delaunay, *Les Médecins, la Restauration et la Révolution de 1830* (Tours, 1932), 97.

In 1833 and 1834 the number of students frequenting the school was prodigious, and several among them were bad-mannered, idle and rowdy and were more than happy to join other bad pupils from the Schools of Law and Pharmacy, who similarly abounded, and outside troublemakers ever ready to encourage them. The disruption brought by the Revolution of 1830 in these young minds was at its peak. Some dressed indecently, with a red Phrygian cap and clogs; others grew long beards and were so daring as to smoke in the lecture-theatre; some spent all their time in estaminets, accompanied by loose women... Many in this bad lot belonged to secret societies and could easily, if need be, bring to the lecture theatres hundreds of workers or other people from these societies to make trouble. Finally, to complete the picture I should say that it was rare for the professors and myself to be greeted when we crossed the school's square.¹⁶²

To combat unruly behaviour and regain control, the government reinstated the *baccalauréat ès-sciences* pre-requisite as early as the first term, greatly reducing the number of poorly educated young men claiming to aspire solely to the *officiat*,¹⁶³ and effectively diminishing student involvement in politics in the late 1830s. Thereafter, governmental surveillance diminished slightly but did not disappear. In 1839, for example, Wiblin warned his fellow Englishmen against discussing politics in a public place in Paris, as there was scarcely a hotel or a *pension* where government agents were not spying on conversations.¹⁶⁴

In the 1840s, most students continued to wear long hair and a beard, conforming to the Republican look and ridiculing bourgeois society until the 1848 Revolution brought back more active political engagement. Once again, medical students took a large part in the riots. Eugène Audiger, for example, followed the crowd looting the Tuileries palace after Louis-Philippe fled and helped himself to two little pots marked with the king's arms.¹⁶⁵ Another student, Closmadeuc, joined the Garde Nationale with his friends to help protect the new Republic.¹⁶⁶ Even the hard-working students of the Société anatomique were eager to demonstrate their support for the Republic: despite low funds they purchased two tricolour flags to adorn the meeting room.¹⁶⁷ However, the 1848 Revolution proved to be the last flurry of student political activity until the Commune. Louis-Napoléon Bonaparte's coup in December 1851 was seen

¹⁶² Orfila, 'Troubles à la Faculté de médecine', 172-3. Orfila added that shouting, vituperations and whistling often disturbed the lessons.

¹⁶³ Ibid., 184.

¹⁶⁴ Wiblin, *The Students' Guide*, 9.

¹⁶⁵ A. Finot, 'Un Étudiant en médecine pendant la Seconde République', *Bulletin de la Société Française d'Histoire de la Médecine*, 20 (1926), 259.

¹⁶⁶ Closmadeuc, 'Souvenirs d'un étudiant en médecine', 198. Closmadeuc was then only 19.

¹⁶⁷ Palluault, 'La Société anatomique', 122.

favourably by the popular classes which had traditionally been allied with the students in 1830 and 1848. Therefore Republican students found themselves isolated during the Second Empire, and lacking a popular movement to follow or direct, they moved away from active political engagement.

The English social context did not provide the same motives and opportunities for political engagement. Medical students followed the debates of the Houses of Parliament and discussed the bills presented by reformers, but they did not become, as a group, wholly ideologically and physically involved in popular movements, such as Chartism, as their Paris peers.¹⁶⁸ Furthermore, since the British government did not appoint professors nor regulate the content of medical instruction, government changes were of little significance to students. In the realm of medical education political tensions existed between radical reformers and the more conservative corporations, and between University College, which answered the aspirations of Utilitarians, secularists and Dissenters, and King's College, supported by the Tory party.¹⁶⁹ But although these frictions may have prompted students from the two rival colleges to confront each other during pranks and brawls, the conflict remained mild.

Religious beliefs

Anticlericalism and politics were strongly related in nineteenth-century Paris. The 1789 Revolution enabled the implementation of many scientific ideas advocated by Enlightenment thinkers. Sciences developed during Napoleon's reign despite his endeavours to use and control scientists for his own purposes. Yet the second return of the Bourbon monarchy to the throne in 1815 threatened a backwards movement. As early as 1817, Father Élysée, Louis XVIII's personal

¹⁶⁸ See *Diary of an Unknown English Medical Student in Paris*, MS 7147.

¹⁶⁹ Armytage, 'Medical Education and the Genesis of the English Civic Universities', 292.

surgeon, attempted to revive the ancient separation between medicine and surgery.¹⁷⁰ Medical students grew increasingly concerned about the appointment of clergymen to key positions in the University by the ultra-royalist government. They especially disliked the University Grand-Master, Bishop Frayssinous, who had previously published pamphlets criticising Bichat's ideas on physiology and attacking those who denied the existence of a spiritual principle in man.¹⁷¹ Students did not accept that science should be subservient to religion, and made their sentiments clear in November 1822. The closure of the Faculty and the replacement of the less fervent professors represented a temporary victory for the ultra-Catholics. In November 1823, Frayssinous claimed that the re-organisation of the Faculty had improved medical instruction by bringing it in line with the doctrines of Christianity. However, these measures only exacerbated student anticlericalism. Despite their talent, devout professors like Laennec and Cruveilhier were repeatedly attacked for their religious opinions and their support for the regime. Outside the school, students displayed their opinions by booing religious processions and ridiculing priests in the streets. Yet, amongst this anticlerical majority, there existed a minority of devout students, who met regularly at the nearby Saint-Sulpice Church and at the Conférence de Saint-Vincent de Paul.

After the regime change in 1830, religious doctrines were no longer imposed on the medical school and tension abated a little. By mid-nineteenth century the Catholic Church had lost a large part of its authority over educated young men. A French pupil claimed that young professional men generally 'had no religion', and that religious observance was left to 'a few women and priest-ridden men' in the provinces.¹⁷² Sunday mass was not as well attended as services in London. Broca, for example, mentioned going to his Protestant temple and also to Notre-Dame Cathedral to hear sermons and enjoy the rhetorical prowess of the preacher but

¹⁷⁰ Father Élysée was a Frère de la Charité monk and trained as a surgeon. In a commission appointed by Louis XVIII to examine the aspects of medical education to be improved the partisans of the separation between medicine and surgery had a small majority. However, Father Élysée died before he could implement his plans.

¹⁷¹ S. Jacyna, 'The Politics of Medicine in Restoration France', *Social History of Medicine*, 40 (1987), 84-5.

¹⁷² Diary of an Unknown English Medical Student in Paris, MS 7147, 4.

admitted that he was not much of a church-goer. Notably, the Louvre museum was only open on Sundays, which prompted an English student to remark that the French Government used every means in its power to dissuade people from attending the divine service.¹⁷³

In contrast, English students' testimonies attest to a much deeper religious devotion. In England, religion and science had not evolved into as striking an opposition as in France. Although some medical men and clergymen voiced concerns about students falling prey to theological scepticism and materialism, medicine did not entertain an open conflict with the churches or religion. The daily exposure to pain and death strongly challenged the faith in an omnipotent and fair God,¹⁷⁴ but it did not produce irreligion and anticlericalism on the same scale as in France. On the contrary, professors' recommendations on student conduct were often placed in a religious context. Introductory addresses delivered at King's College and St Bartholomew's Hospital, especially, contained many references to God as the Creator and to medical practitioners' duties regarding charity. They also voiced concerns about medical students' religious observance.¹⁷⁵ James Paget ended his 1846 address to the students of St Bartholomew's Hospital with a strong recommendation that they protect their knowledge from irreligion, for it was 'only by joining the study of Revealed Truth with that of science' that medicine could be perfected.¹⁷⁶ At King's College, in addition to courses in religious history and philosophy students were encouraged to attend morning prayers. Although these references imply that professors were worried about students displaying irreligion, they also demonstrate that they believed they could influence their conduct, a thought that a Parisian professor would not have contemplated for long.

Dissenters' sons offer another example of successful association between science and religion. Since no obstacle prevented them from becoming a surgeon or apothecary they

¹⁷³ Ibid., 2.

¹⁷⁴ Weatherall, *Gentlemen, Scientists and Doctors*, 28.

¹⁷⁵ Professors may have insisted on that issue to reassure governors that the teaching staff would keep a close eye on students. See also P. M. Latham, *Address to a Medical Student* (Oxford, 1850).

¹⁷⁶ J. Paget, *The Motives to Industry in the Study of Medicine: an Address Delivered at St Bartholomew's Hospital on Thursday October 1, 1846* (London, 1846), 28.

favoured medical careers. Barred from Oxford and Cambridge by the mandatory adherence to the Anglican faith, they also found an adequate source of instruction at the University of Edinburgh and London's University College from 1828 onwards.¹⁷⁷ Although they could not obtain the Fellowship of the Royal College of Physicians, practically reserved for Oxford and Cambridge graduates, they could become licentiates and freely practise in London.

The role of the London hospital chaplains in maintaining a religious influence over medical students, although mostly limited to those pupils who attended church services, cannot be neglected. While the French clergy were far removed from the concerns of medical education, hospitals' chaplains, like Rev. North, were in regular contact with students and eager to answer their philosophical questions. The chaplain at Guy's Hospital, for example, the founder of Christian socialism John F. D. Maurice, delivered sermons on the duties of medical students.¹⁷⁸ Chaplains also bore direct fatherly concerns for medical students since their own sons may have been studying medicine.

Only towards the end of the period does irreligion appear to have increased. In the early 1860s, Taylor noted that attendance was low at morning prayers because they 'appeared entirely disconnected from medical studies'.¹⁷⁹ In his novel *St Bernard*, Berdoe also implies that by the 1870s, medical students often professed outright irreligion. His main character, Elseworth, was told that he would soon outgrow his religious habits and find that 'faith and the scalpel go ill together'.¹⁸⁰

CONCLUSION

The unruly reputation of medical students in society owed as much to the nature of their studies as to their actual conduct, but these extenuating circumstances were rarely acknowledged.

¹⁷⁷ Butler, 'Science and the Education of Doctors', 8. Butler mentions that Edinburgh University's emphasis on science teaching was also consistent with the dissenting tradition.

¹⁷⁸ J. F. D. Maurice, *The Responsibilities of Medical Students: a Sermon Preached in the Chapel of Guy's Hospital on Sunday March 4th, 1838* (London, 1838).

¹⁷⁹ Taylor, *The Diary of a Medical Student*, 3.

¹⁸⁰ Berdoe, *St Bernard's*, 40.

Even if they had behaved properly, early-nineteenth century medical students would have been frowned upon due to their close association with dissections and therapeutic experiments. Outside the school, their accommodation and financial circumstances were also open to criticism. Their solitude and the absence of supervision implied that they actively sought and easily found companionship and recreation. They enjoyed freedom of movement in their new environment and were able to define their own balance between study and leisure. Despite their families' best efforts to control their expenses, students found enough money and opportunities to deviate from perfect behaviour.

Although the financial position of English students appears to have been slightly superior to the French and their conduct better regulated, the main differences appeared in their relation to women, politics and religion. French young men were at the forefront of revolutionary movements in 1830 and 1848, and their Republicanism was historically closely associated with anticlericalism. Even their relationships with *grisettes*, beside providing companionship and financial savings, represented another type of social rebellion.¹⁸¹ In contrast, despite some political turbulence (Reform movement, Chartism) English society proved more stable, and more rigid values restricted student relationships with women to casual encounters.

By the end of the 1850s, the conduct of medical students had improved and rowdy behaviour decreased noticeably.¹⁸² Wright wrote that by the 1860s only a small minority of students 'affected the free-and-easy mixture of the concert-room with the tavern'. The taste for cider-cellars which had attracted society's general disapproval of medical students in the previous decades had almost died out.¹⁸³ Larger social transformations also influenced this change in student behaviour. In France, bourgeois values, such as order and respectability gradually penetrated all social ranks, while in England mores had shifted from Regency licence to

¹⁸¹ Caron has distinguished five types of social disorders students were often accused of: disorder of appearance (dress), behaviour, and relationships (with the *grisettes*), as well as anti-religious and political disorders: J.-C. Caron, 'Maintenir l'ordre au pays latin: la jeunesse des écoles sous surveillance, 1815-1848', in *Maintien de l'ordre et polices en France et en Europe au XIXe siècle. Colloque, 1987* (Paris, 1987), 330.

¹⁸² '100 Years Ago', 83.

¹⁸³ Wright, *Medical Students of the Period*, 114.

Victorian propriety. Changes in attitudes were already perceptible before the access of women to medical education in the 1870s and 1880s. Unruly conduct, pranks and crude remarks had moved away from the public sphere and become limited to the hospital common room (*salle de garde*) and the dissecting-room. Protests against female medical students—in particular female *internes* in Paris—were probably, in part, an attempt to safeguard these last two refuges of uncensored conversation and rowdy behaviour.

No doubt gradual improvement in medical instruction brought about this change. Students' social background rose with stricter entry requirements, and the strengthening of the curriculum left fewer opportunities for truancy and dissipation. In England, medical instruction came to be seen less as an accumulation of courses as students were expected to follow the entire curriculum at one single school. Under these conditions, students were easier to control and a discipline could be enforced by the schools. Outside occupations also lost some of their crudeness. Sporting activities, for example, became organised through school clubs.¹⁸⁴ In France, as political conflicts decreased students spent more time pursuing their studies.

Scientific advances probably affected students' behaviour as well, as their world lost some of its violence and coarseness. The disappearance of body-snatching brought more dignity to their status and alleviated the most disturbing activity to which they were linked. The increasing role of microscopy also created a different kind of relationship to the body and dissections slowly lost some of their importance. Pain was somewhat tamed by anaesthesia and students could thus concentrate on the surgeon's work during operations instead of trying to mask the distressing screams of the patients by jokes and laughter.

¹⁸⁴ K. Brown, 'The Birth of the Clubs: Early Student Societies', *St Mary's Gazette* 98 (1992), 1, 17-19.

6. TOWARDS MEDICAL PRACTICE

As the day of examination approaches, the economy of our friend undergoes a complete transformation, but in an inverse entomological profession—changing from the butterfly into the chrysalis. He never appears at any of his night haunts, and is quite unconscious of what is going on at the theatres and music-halls. He is seldom seen at the hospitals, dividing the whole of his time between the grinder and his lodgings, taking innumerable notes at one place, and endeavouring to decipher them at the other.¹

¹ Smith, *The London Medical Student*, 67.

In their final months of studies, medical pupils faced the daunting replacement of their carefree existence by the responsibilities of professional life. To prepare for the forthcoming examinations, idle students abandoned their usual pursuits and sought to compensate for time wasted outside the school by submerging themselves in books and resorting to private tutoring. Meanwhile, studious pupils, more confident in their knowledge, already looked beyond the diploma to the transition from studies to practice. The expectations outlined at the beginning of their studies were gradually modified by a clearer understanding of professional concerns. Personal circumstances, interests developed over years of medical instruction, and academic achievement all shaped career choices. To increase the chances of reaching their goals, ambitious students sought to distinguish themselves from their colleagues by demonstrating specific experience or talent. After qualification, settling down in practice remained the most difficult step, both in terms of establishing a profitable professional position, and of implementing the knowledge and experience gathered during one's studies.

SHAPING A CAREER

Achievement and hierarchy

Next to personal circumstances, preferences, and achievements, the degree structure and the position attained within the student hierarchy often defined the career paths of future medical practitioners. Whereas in London professional options were usually determined by the type of degree sought, in Paris they were largely influenced by a student's academic accomplishments. At the Faculté de Médecine, students could easily assess their competence by measuring themselves against their peers in the double hierarchy created by the mandatory and optional examinations. Their success or failure at the compulsory intermediary tests illustrated the facility with which they progressed towards the MD. Optional competitive examinations created an additional meritocratic layer, with a place at the *École pratique* marking the echelon above regular pupils, and the *externat* and *internat* the next and highest, respectively. Although

these competitions had no influence on the MD degree, success at these levels could greatly enhance one's career.¹ Professional recruitment was clearly linked to the competence demonstrated during studies. Claims to the highest ranks of the medical community were almost conditional on a passage through the various levels of the student hierarchy. For example, a student who failed the *internat* had few chances of becoming a surgeon or physician at a Parisian hospital. The system's aspirations to meritocracy were somewhat dampened by personal influence and protection. Hard work and determination were often second to previous studies and financial means in opening the door to the highest positions in the profession.

In London, a meaningful hierarchy could not easily emerge within the heterogeneous student population, whose education complied with the requirements of a variety of degrees and diplomas. Furthermore, the LSA-MRCS curriculum did not include any compulsory examinations other than the qualifying tests, and therefore did not provide the basis for ranking students. Only the University of London distributed candidates to the MB examination into two divisions according to their proficiency. As in Paris, junior hospital appointments created an elite; yet, at first these appointments were not awarded on merit. As seen previously, the positions of surgeon's apprentice and physician's pupil were negotiated between the student and his master while dresserships were simply purchased until the 1840s. The absence of a hierarchy prevented students from using their academic achievements to improve their career prospects. Even if they were diligent at lectures and hospital rounds, and perfected their knowledge by wide reading and visits to museums, they could offer no tangible proof of their superiority over their peers. Furthermore, whatever his talents, a penniless apothecary's apprentice would be unable to secure a position of dresser to gain more experience and knowledge. On the contrary, prospective physicians owed their privileged position not to their abilities in the medical disciplines but to their university status, which denoted a good general education. The experience they would

¹ The competitive examinations open to students also included the anatomy assistantship and *prosectorat*.

acquire by following the work of a physician would compensate for any gaps in their medical instruction and legitimate their position *a posteriori*.

Career options

Most young men did not start with a particular career plan and only really worried about it towards the end of their studies. Henry Vandyke Carter's diary entry on 1st January 1853, for example, reflected his doubts over his future:

A host of things shows me the great difference between a student in personâ and a young practitioner. Now indeed troubles begin and what's worse, I have but little mind to face them. The tolerable success and *éclat* of student's progress at St George's is over. Then knowledge was my sole aim. Now I must think of a livelihood. Having no interest whatever in the profession, no kind patron or any particular friends and being in a most literal sense my own adviser, I see but little opportunity of gaining there opportunities for learning—rather than for pecuniary emolument—which [I] could strongly wish to reach. [I] have a love of science and the higher branches of the profession [but] too little confidence in [my]self to strike high and risk the consequences. Too little decision to follow one branch, too little energy and too little of the requisite qualifications. Perhaps [I] ought then to be content with a lower station; yet, and here seems the rub, my ambition is but just enough raised to cause inquiet, and I flatter myself understanding and mind are not wanting.²

While Carter was not alone in his fears, few students were able, like he was, to choose among such a wide array of possibilities, as their career would be largely determined by their diploma or their personal circumstances. In both London and Paris, general practice was the most obvious career path for regular pupils, although a military position could also appeal to some. Hospital and teaching appointments, which offered more prestige and financial prospects, were only accessible to select students, who needed to undertake further preparation after obtaining their qualification.

Students generally chose which diploma they would seek before beginning their studies and opportunities to change direction were rare. However, enlightened by their position in the student hierarchy, by success or failure at previous examinations, or by the ease or difficulty with

² Manuscripts of H.V. Carter, MS 5818, 1. Having taken up no particular branch of medicine Carter was nevertheless undecided between urban or countryside, special or general practice, and felt 'at the mercy of winds and waves'. In June 1853 he became an anatomical artist at the Royal College of Surgeons. He was also demonstrator in anatomy at St George's Hospital before joining the Indian Medical Service and becoming a professor of anatomy at the Bombay medical school.

which they followed lectures, senior students could better judge their abilities and career expectations. They could revise past decisions about settling down as general practitioners, for example, if they proved particularly successful and could reasonably hope to obtain a hospital appointment. Paul Broca, for example, planned to join his father's general practice in the country until his success at the *internat* and *prosectorat*, and his interest in surgery and pathology convinced his parents to support him through further studies.³ A different career sometimes required a new degree. Alfred Velpeau, who came from a modest background, qualified as an *officier de santé* in Tours in 1818. However, his talent caught the eye of one of his masters, Pierre Bretonneau, who helped him financially in obtaining the *baccalauréat*. Velpeau became a student at the Paris Faculty in 1820, gained his doctorate three years later and secured a Faculty professorship in 1834.⁴ From 1840, the quarterly matriculations obtained in an *école préparatoire* could be transformed into faculty matriculations and many modest provincial students took this opportunity to reach the MD. Yet, students who had started their studies in the small provincial schools and obtained their *baccalauréat* during their medical instruction rarely sought a career in high professional circles and settled as general practitioners.

In England, opportunities also existed for students to move up the ranks or into other fields of the profession, after qualification. John Snow, for example, was one of several London general practitioners who tried for the more prestigious and lucrative title of physician by obtaining an MD. However, this type of career change followed several years of lucrative practice and owed little to success as a student. In general, medicine provided only limited opportunities for upward mobility in England. A surgeon-apothecary could, after complying with the usual requirements, take an MD degree from a Scottish university and later be elected as hospital physician; but in the larger hospitals, governors usually selected Oxford and Cambridge graduates to fill the positions of physicians. The chances of attending to the health of the rich classes were slim unless one had taken the university route. To obtain a position as surgeon,

³ Broca, *Correspondance*, vol. 1, 430.

⁴ Huguot, *Les Professeurs de la Faculté de Médecine*, 489.

connections with the staff, whether by family or through an expensive apprenticeship, were also essential.

By comparison, more students had a chance of rising to the top of the profession in France where, like hospital pupil positions (*externat* and *internat*), teaching (*agrégation*) and hospital staff appointments were attributed through competitive examinations. Although patronage played a role in the higher *concours*, virtually any student of a medical faculty (more than 60% of all medical students) could attempt the competitions and endeavour to reach the highest professional echelons.⁵

General practice

The opportunities to settle in general practice greatly outnumbered other options in both London and Paris, and it was consequently the outcome of medical instruction for the majority of students. Even the least demanding diplomas qualified students for treating common medical and surgical ailments, attending pregnant women and, in England, compounding and selling medicines. Although the demanding French curriculum probably provided Parisian pupils with a better theoretical background than their English counterparts, the latter held the advantage of several years' experience as apprentices in an apothecary's shop or a surgery. In addition to understanding the range of diagnosis and treatments they would perform, they also had experience interacting with private patients, gained either from dispensing at the counter or attending them at their home. In contrast, unless they volunteered for work in a *bureau de bienfaisance* (dispensary), French students were familiar only with hospital cases which did not represent a good sample of their future patients.

Military practice

The majority of students who chose to practise in the army, the navy or the colonial forces, did not see the position as an ideal career choice, but rather as the only option their lack

⁵ At the *agrégation* and Bureau central competitions patronage was even more key to success than at the *internat*.

of financial means could obtain. In addition to career stability, a fixed salary and travel opportunities, military positions meant avoiding competition for clientele. Although promotion was slow and salaries remained low, medical servicemen with experience and a little money could establish themselves as general practitioners after serving out their contract.

In England, future military surgeons trained in the London hospital schools or in Scotland before enlisting. They had to obtain the membership of one of the British colleges of surgeons or the MD degree before taking the examination of the Navy's, the Army's or the East India Company's recruitment boards.⁶

In France, a military career was generally selected before studies began. Most military medical officers trained in one of the military medical schools, although a young doctor could also join after graduation.⁷ From the late 1830s, a scholarship encouraged military school pupils to obtain the MD. In the long term a military career therefore proved a good opportunity for poor but bright French students to become *docteurs*.⁸

Hospital position

Students seeking a hospital position could not content themselves with basic training and instruction. To stand any chance against other candidates, they had to demonstrate both knowledge and experience of hospital work. Only junior appointments offered students the experience necessary to perfect their clinical skills and familiarise themselves with the ordinary running of a hospital.

In England, prospective surgeons needed to have been apprenticed to a surgeon—whether a hospital consultant or not—and then secure a position of dresser during their studies, to have a realistic chance of obtaining a post in a provincial hospital. In the London hospitals, a previous

⁶ Thomson, *The Choice of a Profession*, 156. The London students who qualified as MRCS usually attended private courses of military surgery before taking the Boards' examinations.

⁷ Army medical men trained at the Val de Grâce (Paris), Lille, Metz, and Strasbourg, and Navy surgeons in five Navy hospitals schools in Brest, Cherbourg, Lorient, Rochefort and Toulon. These institutions enjoyed the same rights as the *écoles secondaires de médecine*.

⁸ Léonard, 'Les études médicales', 87; Charton, *Guide pour le choix d'un état*, 371; 379.

apprenticeship to one of the surgeons was almost compulsory to be elected a member of staff. Until the 1840s, access to the position of surgeon in some of these institutions appeared to deserve the accusation of nepotism voiced by Thomas Wakley. At Guy's Hospital, for example, all the surgeons had been pupils of Sir Astley Cooper and three of them belonged to his family.⁹ Although considerations other than pure ability ultimately contributed to success in obtaining a hospital appointment, it was only natural that a surgeon be succeeded to by one of his many pupils. Even in the 1850s, when nepotism had declined, loyalty to the institution remained a valuable asset for candidates.¹⁰ Carter remarked that his friends Marcet and Sanderson had joined St George's and St Mary's hospitals, respectively, adding that entering as a pupil and gradually rising to house surgeon and then full surgeon seemed the only way to succeed in the London hospitals.¹¹ The position of hospital or dispensary physician, usually reserved for university graduates, was virtually impossible for ordinary apprentices to attain. From the 1840s, students who sought a place on the medical staff endeavoured to be selected as house-physicians after obtaining their MD and hoped to impress their seniors enough to be commended for a permanent place.¹²

In Paris, students were compelled to obtain positions as *externes*—or better still, *internes*—to improve their chances of securing hospital appointments in the provinces. A career in the Parisian hospitals required recent graduates to pass the Bureau central examination, which was so competitive that few other than former *internes* attempted it. The successful candidates served at the Bureau central for a few years until a permanent position became available in one of the hospitals.

⁹ Peterson, *The Medical Profession*, 146-7.

¹⁰ Newman, *The Evolution of Medical Education*, 144-5.

¹¹ Carter wrote that, unlike his friends, he had neither the money nor the courage to undertake the career risk of becoming a hospital surgeon: Manuscripts of H.V. Carter, MS 5817, 4-12.

¹² In the late 1850s, a greater proportion of students prepared for the University of London MB at King's College and University College than in the other hospital schools. To allow the greatest possible number of these pupils to become house physician, the position was usually held for six months against at least a year in the other hospitals: Wright, *Medical Students of the Period*, 57; L. S. Beale, *The Medical Student, a Student in Science. The Introductory Lecture delivered at the Opening of the Twenty-Fourth Session of the Medical Department of King's College, London* (London, 1855), 3.

Teaching

Teaching positions were equally attractive and abundant in London and Paris. In 1840, for example, London possessed ten hospital schools and as many private schools, which represented more than 150 professors. In Paris, although official teaching was restricted to the 26 Faculty chairs, opportunities for private teaching at the *École pratique* or in the hospitals were plentiful. Students attracted by the prestige of teaching positions tried their hand at lecturing by offering private tuition to small audiences of younger pupils. In general, they would teach descriptive disciplines such as osteology and anatomy which, unlike pathology or chemistry, did not require years of clinical experience or expensive equipment. French students were more likely to teach than their English counterparts. Although nothing prevented English students from offering their own private lessons, they usually qualified quickly and even a senior student did not have much more experience than his younger colleagues. Physicians pupils, who were often older than the prospective general practitioners, were rarely in such financial straits that they needed to teach for money. Besides, the shortage and price of corpses made it almost impossible for London students to teach anatomy-based courses.

In France, however, fourth-year students could share their experience with new pupils. Furthermore, *internes* were obliged to delay their graduation until the end of their hospital duties which gave them enough time to offer private tuition to other students. Anatomy assistants and *prosecteurs* were even able to go beyond tutoring a handful of pupils. While still students themselves, they were responsible for entire dissecting-rooms and could expand the range of their lessons from anatomy to physiology, morbid anatomy, pathology, and surgery.

Parisian students wishing to become Faculty professors would first pass the *agrégation* examination before competing for a chair. This *concours*, for which candidates undertook a lengthy preparation, was meant to demonstrate their knowledge and eloquence.¹³ For a teaching

¹³ Sacré, *Considérations sur l'étude*, 12. The *agrégation* and professorship competitions were enjoyable spectacles, where contestants jostled verbally with each other. Diday mentions that professorship competitions were considered enough of a recreation and an intellectual stimulation that *internes* on duty would leave their service unattended to watch them: Diday, 'Les récréations', 29. The 1836 competition for the chair of anatomy resulted in riots. The

position in an *école secondaire*, where a preliminary examination like the *agrégation* did not exist, experience as an *interne* distinguished the candidates. In London, where most schools were attached to a hospital, teaching—except for disciplines, like botany and chemistry, which did not involve patients—was offered by incumbent practitioners. Prospective teachers, therefore, had to comply with the recruitment process of hospital practitioners. For those who failed to obtain a hospital position, private schools offered an alternative. For example, after studying at Guy's Hospital, Edward Grainger wanted to teach anatomy but was unable to secure the post of demonstrator because he had not been apprenticed to one of the surgeons. He thus chose to offer anatomical lessons in the nearby Webb street school, before later opening his own establishment.¹⁴

DIFFERENTIATION AND DISTINCTION

To strengthen their competitive advantage within the medical community, ambitious students endeavoured to distinguish themselves from their peers. Prizes, publications, specialisation and studies abroad, in particular, helped them demonstrate their abilities and superior experience and knowledge. Future country practitioners did not need to differentiate themselves because they would derive their reputation from their practical and social skills rather than from extensive academic achievement. Moreover, their diploma legally recognised their superiority over charlatans or practitioners of lower status (such as *officiers de santé*). However, prospective hospital consultants and city-bound family practitioners needed to set themselves apart to secure positions and attract a demanding clientele in a competitive market.

students supported Jules Cloquet but Gilbert Breschet, a knowledgeable but older private professor of little eloquence found the favour of the judges. When the result was published, students protested, chased the jury away from the theatre, ripping up their gowns and mortarboards, breaking doors and windows. Orfila, 'Troubles à la Faculté de médecine', 182.

¹⁴ Cope, 'The Private Medical Schools of London', 89-109.

Prizes

In both London and Paris, medical schools instituted prizes to encourage pupils to excel and demonstrate their abilities. In the French capital, the Faculty of Medicine granted two privately-funded prizes (Corvisart and Montyon) in addition to the *École pratique* awards, while the General Council of Hospitals offered distinctions to *internes* and *externes*. Whereas the competition for the *externat* and *internat* prizes involved written and oral examinations, the other three simply required a memoir. The most prestigious distinction was the *Prix de l'Internat*, which bestowed on the gold medal recipient the much-sought-after title of *Lauréat des Hôpitaux*.¹⁵

In London, the number of prizes awarded increased due to a flurry of private donations in the late 1830s and early 1840s. From 1842 they were advertised in *The Lancet's* annual review of the teaching institutions and by 1850, each major establishment boasted at least five or six different awards. Each school's prizes were funded by private benefactors, thus they recognised achievements in a wide variety of domains, such as general proficiency, specific disciplines, clinical reports, or memoirs on particular questions.¹⁶ Students were even rewarded for their familiarity with the Scriptures. St Bartholomew's Wix Prize, for example, was awarded to the best essay on the connection between revealed religion and physical science.¹⁷ In addition to prizes, the London schools also awarded scholarships. These stipends, tenable for two or three years,

¹⁵ The *École pratique* prize was open to competition among the 120 *École pratique* pupils, divided into first, second and third-year students. Until 1829 the *Internat* prize was awarded by a decision of the senior hospital practitioners. Afterwards, it was awarded by examination. The Corvisart prize was attributed to the best memoir on a given clinical question and the Montyon prize went to the best memoir on the most prevalent disease of the previous year (this was one of the multiple prizes founded by the baron de Montyon; the most famous ones were awarded by the Académie française and the Académie des Sciences). Prizes usually consisted of medals, books and sums of money or fee exemptions.

¹⁶ In 1850-51, for example, St Thomas' Hospital awarded no less than 9 prizes, excluding certificates of merit: 2 prizes of 5 and 3 guineas for the best clinical clerks; a first President's Prize of 10 guineas to the dresser who reported most accurately the greatest number of surgical cases; a second President's Prize of 5 guineas to a second-year student for the best reports on medical cases; Dr Root's Prize (10 guineas) to the clerk who produced the best report on no fewer than 12 medical cases; the Prize 'of one of the Governors' (5 guineas) for the best report on ophthalmic cases; a first Treasurer's Prize for general proficiency and good conduct (gold medal); a second to the best essay read before the Physical Society (5 guineas); and a third Treasurer's Prize of £100 for a memoir on a specific subject (the subject for 1851 was 'On the chemical and physiological action of mercurial preparations'): *The Lancet*, (1850), i, 369.

¹⁷ King's College's Leathes and Warnerford Prizes, and the Middlesex Hospital's Treasurer's Prize were other examples.

were usually granted to prospective or first-year students.¹⁸ The Society of Apothecaries also awarded a prize to the students who followed the course of Botany at the Chelsea Physic Garden; no equivalent, however, was offered by the College of Surgeons.¹⁹

In the early 1850s, not only were all London students eligible to compete for at least one prize, in several hospital schools, such as the London Hospital and St Bartholomew's, medals and certificates of merit were attributed in all disciplines. Robert Bentley Todd regretted that this system encouraged some candidates to concentrate on only one subject, neglecting the others, which affected their overall training.²⁰ In Paris, the desire to excel was already well ingrained in the meritocratic system which determined junior hospital appointments; therefore prizes were not as essential. Some awards were reserved to *École pratique* pupils, *externes* and *internes*. *Internes* were in a very favourable position to secure the Corvisart and Montyon distinctions because they had the best opportunities to observe diseases. Consequently regular students were left out of the competition. Delasiauve rightly accused prizes not only of completely neglecting the great majority of students who most needed encouragement, but also of reducing the number of competing candidates, even among *externes* and *internes*, to about 20 or 30.²¹ Many students did not even bother to compete for titles that were out of their reach and thus prizes failed to produce the emulation expected by professors. The lack of interest in these awards became such that participation in both the *École pratique* and the *internat* and *externat* prizes was made compulsory.²²

¹⁸ At King's College, they were awarded to second and third-year pupils.

¹⁹ RSCME, vol. 3, 110-11.

²⁰ R. T. Todd, *On the Resources of King's College London, for Medical education: Being the lecture delivered at the opening of the Medical Classes in that Institution on the 1st October, 1852* (London, 1852), 17. In 1852, Carter also remarked that his incomplete medical education was due in part to the prize system: Manuscripts of H.V. Carter, 3.

²¹ Delasiauve, *De l'Organisation médicale*, 125. All students could directly compete to be accepted into the third year at the *École pratique*. Therefore the top *École pratique* prizes, instead of going to regular third-year students, were monopolised by five or six *internes* who, after more than five years of study, obtained them with neither trouble nor glory. Langlebert, *Guide pratique*, 298.

²² *Ibid*, 293.

Publications

Publishing articles and medical essays represented a fruitful way of using everyday studies to improve one's career prospects. These publications helped students become known within the medical community, and could favourably impress patients. Early works were often based upon observations rather than medical theory. Students typically published accounts of interesting clinical cases, discoveries in minute anatomy or physiological and chemical experiments. Their lack of experience and opportunities usually prevented them from recognising and reporting any major scientific advancement in therapeutics or pathology.

Ambitious students did not necessarily wait to qualify before publishing. Paul Diday wrote that self-respecting *internes* would always have an article ready for the medical press.²³ Indeed, they often contributed to medical journals such as *Les Archives générales de médecine*, *La Gazette des Hôpitaux*, and *L'Union médicale*. The Société anatomique, which issued its own bulletin, also provided opportunities for publication. Nathan Oulmont, for example, contributed six articles as a member and also wrote two articles for the *Archives médicales de Strasbourg*.²⁴

Student publications certainly appear less prominent in the English medical press than in the French.²⁵ Again, with their medical studies crammed into two to three years, regular London students did not have as much time or experience for writing as their Parisian counterparts. Unsurprisingly, the greatest contributors were university students whose studies were longer, more thorough and more scientific. William Gibson has shown that some English students produced very valuable works. At University College, for example, Joseph Samson Gamgee published various essays on the treatment of fractures before graduating. While studying at the Charing Cross medical school, Thomas Huxley wrote a paper on the structure of the human hair

²³ Diday, 'Les récréations', 25. Young *internes* followed a tradition made famous in the early nineteenth century by Dupuytren, Laennec and Gaspard-Laurent Bayle who had published works of great importance before graduating.

²⁴ Oulmont was only an associate member and therefore not one of the greatest contributors. See *Index bibliographique des ouvrages, mémoires et publications diverses de MM. Les Médecins et Chirurgiens des Hôpitaux et hospices de Paris* (Paris, 1878) and Palluault, 'La Société anatomique', 152.

²⁵ A quick review of *The Lancet* and the *Provincial Medical and Surgical Journal* shows that articles from medical students were not published on a regular basis.

sheath and at St George's, Henry Gray produced an immense volume on the nerves of the human eye, for which he won the Triennial Prize awarded by the Royal College of Surgeons.²⁶

Specialisation

Careers as specialists remained very limited in both London and Paris during the first part of the nineteenth century. The great majority of medical students saw no reason to specialise. As village or small town practitioners, they would be required to perform an array of diagnosis and treatments for a varied clientele and would need to master medicine, surgery, and obstetrics—and also, in England, pharmacy. Specialists could only survive in large towns where they encountered enough demand for their specific services. But even there physicians and surgeons hesitated before embracing specialisation owing to its negative connotation.

Medical specialisation evolved during the seventeenth and eighteenth centuries in the traditional fields of dentistry, ophthalmology and lithotomy. These activities were often performed by itinerant, uneducated practitioners, who relied more on skill than on a formal knowledge of their discipline. Even after specialisations developed scientifically in hospitals and were advertised through their own specialist publications, they remained tainted by the stigma of quackery. Many in the profession argued that practitioners should be familiar with the entire spectrum of diseases and that by specialising in certain affections or organs they would lose sight of the body's physiological unity. Yet, by the 1830s, a significant number of specialists actually belonged to the professional elite. They held senior positions in specialised hospitals and dispensaries like the London Eye Infirmary or the Hôpital des Vénériens in Paris.²⁷ Others, like

²⁶ W. C. Gibson, 'The scientific contributions of medical undergraduates in London', *Medical History*, 12 (1968), 4, 359-384. The Triennial Prize was open to all and not specifically restricted to students.

²⁷ Before the 1860s only a handful of medical practitioners specialised in medical research. Alfred Donné, for example, became one of the first to apply the microscope to pathology and wrote on the composition of milk and bodily fluids. Unfortunately, this type of research was more of a pastime from which Donné could not expect to derive a decent income. Only when laboratory positions became full-time employments with an adequate remuneration, did medical doctors live without actually practising medicine.

Charles Locock or Paul Dubois, for example, were obstetricians to the upper classes.²⁸ Few could equal their expertise in their given domain and, as their services were in demand, they commanded large fees.

A student could therefore seek to differentiate himself from his peers by taking up a particular branch of medicine and carving out a niche in the profession. Of all the specialties only midwifery, which was an intrinsic part of the curriculum, enjoyed significant professional recognition. However, its practice was often considered unpleasant and repetitive. It was not until the 1860s that the Paris Faculty of Medicine began to provide any formal teaching in other specialties. In London, some hospitals, like Guy's, offered courses such as diseases of the eye but the curriculum did not encompass any specialisation apart from midwifery. In both cities, specialisation was not recognised by a degree; hence students needed to prove their expertise through publications and personal experience. They had to rely on the private teaching offered by hospital and dispensary specialists, who transmitted knowledge of and enthusiasm for their field. John Green Crosse, for example, sought to open an eye clinic after working at the Eye Infirmary at Moorfields.²⁹ Similarly, François Leuret was an *externe* at the Charenton asylum before becoming a specialist in mental diseases.

Studying abroad

Studying abroad added a very advantageous distinction to new experience through cultural discovery. However, whereas London medical pupils often sought to perfect their education and raise themselves above other practitioners by completing part of their instruction in a foreign school, the Paris curriculum provided neither the possibility nor the incentive for international studies.

²⁸ R. Maulitz, 'Metropolitan medicine and the man-midwife: the early life and letters of Charles Locock', *Medical History*, 26 (1982), 1, 25-46. In London, however, the surgeons who specialised in midwifery could not belong to the Council of the College of Surgeons.

²⁹ Crosse, *A Surgeon in the Early Nineteenth Century*, 46-66.

Travelling between schools remained a feature of British medical education throughout the nineteenth century. Oxford and Cambridge medical students went to London or Edinburgh to acquire theoretical and practical instruction unavailable at their own universities. Even English pupils who graduated in Scotland often spent time in London where clinical facilities were better than in the Scottish infirmaries and dispensaries. Moreover, establishing acquaintanceship along the London hospital practitioners was fundamental if they wanted to become physicians in the city.

The English and Scottish universities, like the French medical faculties of the eighteenth century, allowed their pupils to study where they wanted, provided they complied with certain residence requirements. Thomas Hodgkin, for example, studied in both Edinburgh and London before going to Paris and returning to Edinburgh to finish his degree. London medical instruction allowed a similar flexibility: students merely collected certificates of attendance that would enable them to take the examinations of the Society of Apothecaries, the College of Surgeons, or the University of London. The place where instruction was acquired mattered little to the Society of Apothecaries as long as the required order and number of lessons were respected. However, the College of Surgeons recognised only the anatomy teaching given in London, Dublin, the Scottish universities and a few English provincial towns. John Wiblin, a great advocate of studies in Paris, reminded prospective general practitioners that the College's regulations should not prevent them from studying abroad since they did not need to attend a single lecture in England to become legally qualified:

A pupil has only to attend in Paris the courses of lectures in the order prescribed by the Apothecaries' Company to enable him to present himself for examination for their diploma. A pupil who has an indenture of apprenticeship should pass two years and a half in Paris... To attend all the lectures to qualify a student to present himself for examination at the Hall, it will not cost him one *soit*; and as it is not illegal to practise surgery without the College diploma, those gentlemen who do not particularly wish to waste 22 guineas should avail themselves of the information just proffered.³⁰

³⁰ Wiblin, *The Students' Guide*, 69.

Courses taken abroad counted towards English students' degrees; thus they were greatly encouraged to broaden their horizons.³¹ As soon as the Napoleonic wars ended in 1815 they flocked to France and continued to do so in great numbers until the mid-1850s. But by the early 1840s the flow had already started to diminish, in favour of Vienna and the German universities. Russell Maulitz has estimated that between 1825 and 1835 an average of 60 English students matriculated for at least one term at the Paris Faculty each year, and an even greater number came for a few months but did not register.³² By 1828 the number of English students in Paris reached approximately 200. They tended to travel to the French capital towards the end of their studies, once they had acquired a sufficient foundation to really benefit from the experience, and to attend the winter session to maximise their opportunities to dissect. Students who sought a certificate from one of the Faculty professors needed to stay for the full length of the session, while those who did not, simply remained long enough to gain an overview of Parisian hospital practice.

In *Morbid Appearances*, Maulitz describes the 'lure of French pathology for English students', and argues that British men like Thomas Hodgkin and Robert Carswell were attracted to Paris mainly by French advances in clinical examination and morbid anatomy. Indeed, as seen previously, Paris offered much better opportunities to perform anatomical exercises than London or Edinburgh, especially before the passing of the Anatomy Act in 1832. Not only were dissections legal in Paris, corpses were approximately thirty times cheaper than in London.³³ English students were allowed to dissect at the *École pratique*, though Faculty pupils were entitled to select their corpses first. Therefore English students would register for private tuition with one of the prosectors to ensure they had a body to dissect. Opportunities to dissect also

³¹ Maulitz claims that students were clearly encouraged by their professors to take a Parisian study tour.

³² Maulitz, *Morbid Appearances*, 140; 149. Apart from a dip in 1821-1823 the number of English students regularly increased between 1815 and 1835. Maulitz explains the rise around 1825 by the College of Surgeons' refusal to recognise the private teaching of anatomy in London during the summer session. The resulting crowds in the dissecting rooms during the winter enticed some to prefer Paris.

³³ In 1828, corpses were on average 8 Francs in Paris and 9 guineas (235 Francs) in London. *Report of the Select Committee on the Schools of Anatomy*, 6-9.

existed at the Pitié hospital, and later at Clamart, under the supervision of a demonstrator, or by joining a group of *internes* and *externes*.³⁴

English students followed the clinical rounds avidly every morning, some even attending on Sundays when the professor was only accompanied by his *externe* and his *interne*.³⁵ They particularly appreciated the thorough and methodical examinations undertaken by French consultants who, as Carter noted in his diary, easily surpassed the English physicians. In the early 1820s, to witness Laennec using the stethoscope was often one of the main reasons for a trip to Paris.³⁶ Even after Laennec's death in 1826, English students continued to visit the Charité hospital where physicians offered training in auscultation. Another popular reason for travelling to Paris was to attend private courses on clinical midwifery. While in London it was difficult to gain any serious experience of examining women and delivering babies, in Paris practical midwifery was, in Carter's words a 'very matter of fact thing'.³⁷

Although English students concentrated their time and efforts on the hospital wards and the dissecting-rooms, they did not neglect theoretical courses. It was not unusual for an English student to attend all the courses offered by the Faculty professors since they did not overlap with dissections or hospital rounds.³⁸

The opportunities to investigate disease in Paris prompted an English practitioner to remark that no medical student who could afford to travel to the French capital would feel

³⁴ Manuscripts of the Hodgkin Family, MS PP/HO/D/A538 (Letter from Thomas Hodgkin to his brother, 24 Oct. 1821).

³⁵ Diary of an Unknown English Medical Student in Paris, MS 7147, 16 v.

³⁶ Manuscripts of the Hodgkin Family, MS PP/HO/D/A537 (Letter from Thomas Hodgkin to his brother, 15 Oct. 1821).

³⁷ Diary of an Unknown English Medical Student in Paris, MS 7147, 12; 19; 68 v. Mme Lachapelle's midwifery course, which included the examination of 40 women, cost 10 Francs. This unknown student added that the people of England would be shocked at the way clinical midwifery was taught in Paris, where this instruction was 'thought nothing of'. He wrote elsewhere that he hoped these *manoeuvres* would give him enough confidence to perform his own deliveries. See also Manuscripts of H.V. Carter, 12.

³⁸ See Diary of an Unknown English Medical Student in Paris, MS 7147. This student attended theoretical instruction on medicine, physiology, general pathology and therapeutics, surgery and natural history.

satisfied until he had studied there.³⁹ However, while the greatest incentive for a trip to Paris was the quality of instruction and the opportunities for learning afforded in the key domains of French medicine (clinical examination, anatomy, surgery and pathology), this alone cannot explain the success of the Parisian tour. The organisation of teaching at the Faculté, which actually favoured outsiders like Englishmen, also presented a strong incentive. Whereas French students had to comply with the matriculation regulations to obtain the MD, English pupils could attend the lessons they chose without the daunting prospect of examinations. Tuition fees were linked to the diploma, therefore Englishmen who did not seek the Paris MD could obtain a certificate from every professor whose class they had attended without having to pay.⁴⁰ They could similarly attend all the free lessons given by the *agrégés* at the *École pratique*, a system which Carter regarded as an immense advantage over the London system of instruction.⁴¹ They therefore spent money only on private clinical lessons and courses.⁴²

Not only were the Faculty's clinical wards at the Hôtel-Dieu and Charité hospitals completely open to English students, but most hospitals also accepted them for free. They could easily attend a different ward or even hospital on each day of the week, thereby maximising their learning opportunities. Wiblin claimed that to obtain access to the practice of as many hospitals in London would have cost around £500.⁴³ The only disadvantage lay in the fact that all rounds took place at the same time, limiting the visits to one or two wards a day. Laennec's clinical

³⁹ 'The medical practice of the Parisian hospitals', 517, 522.

⁴⁰ English students actually found it extremely easy to collect certificates. One student worried that his irregular attendance at Broussais' course would cost him his certificate, but in the end received it without problem and even obtained Gerdy's although he had not been to the lectures more than three times. In the early 1830s, French professors rarely controlled attendance and delivered certificates to all those who had applied for authorisation to the Faculty's secretary: *Diary of an Unknown English Medical Student in Paris*, MS 7147, 54-5.

⁴¹ *Manuscripts of H.V. Carter*, 9.

⁴² In 1830, for example, Henry Peart attended a course on operative surgery for 25 Francs: Loudon, 'A Doctor's Cash Book', 253. Wiblin advised students to take a similar course: Wiblin, *The Students' Guide*, 65-6. Surgical instruments were also cheaper in Paris: catheters, for example were 8 Francs a dozen (6s4d) whereas it was impossible to find them in London for less than 3s6d. apiece: *Diary of an Unknown English Medical Student in Paris*, MS 7147, 38. Henry Peart's five months in Paris are revealing because, apart from three books including Laennec's *Auscultation médiate*, the course on operative surgery and a skull, Peart spent almost all his money on surgical instruments. There is no evidence that he dissected, although he visited a dissecting-room.

⁴³ Wiblin, *The Students' Guide*, 70. John Wiblin's insightful guide for English students travelling to Paris was not limited to a description of the hospitals and to advice on the best professors, but also provided administrative information, advice on lodgings, eating-places and French customs.

lesson, which he delayed until 9 or 10 a.m., drew a large crowd of English and American students. The foreigners attended first the Charité surgical rounds and later Laennec's medical service, by then deserted by the French students who had already left to attend the Faculty lectures.⁴⁴

In Paris, English students formed a true community which, in addition to the medical establishments, met in a few English bars and restaurants, and at the Anglican and Presbyterian churches.⁴⁵ Englishmen also regularly visited the Galignani reading-room, which received daily newspapers from England, and attended the debates of the Anglo-Parisian medical society.⁴⁶

The English community was altogether a source of pride and irritation for French students. The pride stemmed from the very presence of foreigners, which implied that the medical instruction available in Paris was better than in London. But this pride was counterbalanced by irritation fuelled by increased competition for seats in the theatres, space in the wards, and bodies in the dissecting-rooms. French students complained that they could not attend their courses properly because of the great number of non-paying Englishmen. In 1825, Parisian students affixed a poster on the Faculty's walls, attacking Englishmen who crowded the dissecting-rooms and accusing them of causing a shortage of bodies and an artificial rise in their prices. The poster demanded that fee-paying students be given preference over foreigners. Englishmen became so concerned by the constant threats from French students that they asked their embassy to plead their case with the French government.⁴⁷ Those Englishmen who travelled to Paris were mainly drawn from the medical student elite and, as Maulitz argues, were

⁴⁴ Wiriot, *L'Enseignement clinique*, 118.

⁴⁵ Apparently, English students enjoyed a 'French dinner' during the week, but on Friday, when Catholics abstained from meat, they dined in the English restaurants: Diary of an Unknown English Medical Student in Paris, MS 7147, 61.

⁴⁶ Manuscripts of H.V. Carter, MS 5817, 3; Wiblin, *The Students' Guide*, 13.

⁴⁷ Caron, *Généralisations romantiques*, 81. The dean of the Faculty intervened in favour of the Parisian students, arguing that since most Englishmen were not registered as regular pupils, their rights had to come second.

‘far better off socially and economically than their French counterparts’.⁴⁸ This social difference may well have amplified antipathy.

Resentment also existed in the opposite direction: English students did not appreciate being seen as an easy source of revenue. French students who offered private courses and anatomical tuition to their English counterparts were sometimes accused of exploiting their ignorance. In 1834, a young Frenchman, Henri Roger, provoked the anger of English students by changing the pricing structure of his anatomical demonstrations. One English student noted that Roger was no better than the majority of Frenchmen, whose ‘sole business and delight seemed to consist in taking in or endeavouring to take in the raw “Englishers”’.⁴⁹ Wiblin also advised his compatriots to beware of some *internes*, who promised a regular number of body parts for a set sum, but then failed to come to the dissecting-room when they were on duty at the hospital.⁵⁰

In addition to the knowledge and invaluable practical experience they gained, English students in Paris were confronted by new teaching methods and a challenging intellectual environment. To take full advantage of this instruction, they had to make an extra effort to appropriate the lessons. Using testimonies from American travellers, John Harley Warner has demonstrated that the students and practitioners who came to study in Paris were far from being passive recipients of the education offered by the French professors. They selected elements that they were ready to adopt and discarded others, like the timid therapeutic methods employed by the French physicians, or the surgeons’ methods of dressing wounds, which they saw as irrelevant for their particular practice.⁵¹

⁴⁸ Maulitz, *Morbid Appearances*, 151.

⁴⁹ Diary of an Unknown English Medical Student in Paris, MS 7147, 46-7. This was probably Henri Louis Roger, appointed *interne* in 1834, who later taught children’s diseases at the Faculty as *agrégé*: Huguet, *Les professeurs de la Faculté de Médecine*, 628.

⁵⁰ Wiblin, *The Students’ Guide*, 63.

⁵¹ See Warner, ‘The Selective Transport’. Wiblin, for example, attributed the high mortality occurring in the French hospitals to the ‘ineffectual practice they adopt in their after-treatment’: Wiblin, *The Students’ Guide*, 61. English surgeons were particularly opposed to their French colleagues’ wide use of ‘charpie’ (shredded lint), which caused

A trip to Paris also proved advantageous in moving along the career ladder. The extra expense of money and time, and the effort of learning in another language denoted a studious individual who did not limit himself to the regular curriculum. Going to Paris was especially useful for students intending to apply for a hospital appointment, as their experience meant that they were familiar with the latest types of medical treatments and surgical procedures on both sides of the Channel. However, even some future general practitioners chose to study abroad for a time. Henry Peart, for example, studied in Paris for five months and then remained a general practitioner in Feckenham all his life.⁵² Indeed, a trip to Paris probably gave an edge to a general practitioner over his competitors and attracted the rich clientele who saw it as both a cultural and a medical experience. Therefore, whereas a French medical practitioner could display his title of ‘Former *Interne* of the Paris Hospitals’ on his door, his English counterpart could emphasise his experience by referring to his time in Paris.⁵³

While English students travelled to Paris in great numbers, very few French students made the opposite journey to London. They were constantly reminded by their professors that the Paris Faculty ranked highest in the world, a claim of superiority supported by the presence of foreign students. The French system was all inclusive and any course that was not taught—or only partially—at the Faculty, could be found amongst private courses. Moreover, unlike Edinburgh, which allowed students to study in a foreign university, Paris only admitted the transfer of matriculation terms from the Strasbourg and Montpellier faculties, and even then students sometimes faced administrative difficulties. Courses taken elsewhere could not be used towards a degree in Paris, which offered no incentive for French students to travel, and the higher tuition and living costs in London certainly presented another drawback. William Budd’s

wounds to suppurate. English tradition required the surgeon to let the wound breathe: Diary of an Unknown English Medical Student in Paris, MS 7147, 7 and 57 v.

⁵² Loudon, ‘A Doctor’s Cash Book’.

⁵³ In *Middlemarch*, Mr Brooke was impressed by Lydgate’s Paris tour, saying ‘I think he is likely to be first-rate—has studied in Paris, knew Broussais’: G. Eliot, *Middlemarch* (1st edn. 1871-2; London, 1994), 92.

correspondence reveals one example of a Parisian graduate visiting London. Prosper Despines, who had become Budd's friend while they both studied in Paris, arrived in London at the end of 1837.⁵⁴ Having just received his MD degree he did not need to attend courses and there is no evidence that he came to study. Like most Frenchmen he was more likely to limit his visit to the few major hospitals and some specialist infirmaries. By restricting their training to Paris, French hospital practitioners were less well attuned to foreign discoveries than their English counterparts. An English student in Paris remarked that while Guersant, in his private course on clinical surgery, detailed at great length every French theory and instrument, he did not mention any English equivalent. The student attributed this attitude to either ignorance or jealousy, but ignorance and a conceited feeling of superiority were probably to blame.⁵⁵

EXAMINATIONS

Preparation

Examinations represented the last hurdle before qualification, a critical moment for which most students endeavoured to prepare both intellectually and emotionally. Whereas French pupils relied on annual assessments and optional *concours* to weigh their academic strength, in London the prize competitions offered only a partial idea of their capacities.⁵⁶ French public examinations also gave students an opportunity to familiarise themselves with the *modus operandi*, the type of questions asked and the answers provided. In London, both the LSA and the MRCS examinations were held in private, a system which both Courts of Examiners regarded as best adapted to allow timid students to excel. Many pupils, however, wished the examinations to become public so that the jury's decisions could be witnessed and debated. Requests for this change culminated in January 1836 when a rejected candidate, Thomas Smith,

⁵⁴ Budd Family Papers, MS 5153/B/6 (Letter from W. Budd to G. Budd, 13 Dec. 1837).

⁵⁵ Manuscripts of H.V. Carter, MS 7147, 62 v.

⁵⁶ Alexander Harvey claimed, nevertheless, that despite the absence of any evaluation during the course of their studies, pupils knew the acquirements of their peers and could measure themselves against those who passed the examinations: Harvey, *Four Letters*, 46.

accused members of the jury and the clerk of the Society of Apothecaries' Court of Examiners of contemptuous language and incivility.⁵⁷ However, neither the Society of Apothecaries nor the College of Surgeons answered their wishes. Two years earlier, John Ridout, a member of the Society of Apothecaries' Court of Examiners, had rejected the idea of making examinations public before the 1834 Select Committee on Medical Education, arguing that it would render them theatrical.⁵⁸

To find information about examinations, London students were left to ask friends who had passed or to consult guide-books and manuals which presented the questions regularly asked by examiners and developed the expected answers. These guide-books were usually published by grinders, private professors who specialised in the preparation for the LSA and MRCS examinations.⁵⁹

The absence of intermediary examinations led English students, more than their French counterparts, to acquire much of the knowledge they were supposed to have learnt during their three years of studies, in the last months of their education. They resorted to grinders to prepare efficiently. Grinders, who provided personalised, direct tutorials and a flexible teaching style appealed to students, who were able to ask them questions about the topics they did not understand.⁶⁰ The grinder Thomas Whitaker, for example, used familiar conversation to illustrate his instruction in surgery and physiology.⁶¹ Unlike the teaching of a course, which focused on a single discipline, grinders offered a detailed analysis of the range of subjects on which students were likely to be interrogated. They aimed to provide structure and offer practical advice on how

⁵⁷ See 'Satisfaction and complaints of students', page 149.

⁵⁸ *RSCME*, vol. 3, 47.

⁵⁹ While strengthening the grinders' reputation, these manuals also served to advertise their services. In his manual, John Steggall detailed the different tuitions he offered. J. Steggall, *A Manual for Students Who are Preparing for Examination at Apothecaries' Hall* (London, 1831). Advertisements also appeared in the press. In 1835 W. Meade placed one in *The Lancet*, emphasising that the education he provided was good for beginners and senior students alike: *The Lancet* (1835-36), i, 10.

⁶⁰ The cost of a preparation with a grinder was also lower than the extra expenses incurred by another session in the metropolis.

⁶¹ T. H. Whitaker, *Diagrams Explanatory of the Chemical Decomposition of the London Pharmacopoeia and of Various Processes Used in Medical Chemistry, Necessary to be Known by Students Preparing for Examination at Apothecaries' Hall* (London, 1839), 44.

to prepare for written and oral assignments. Their success depended on the ability of their pupils to answer the jury's questions correctly. The training they dispensed thus required the acquisition of a lot of information in a short amount of time. These methods did not find much favour in the eyes of ordinary lecturers who condemned grinders for asking too much from memory and not enough from reasoning, and deemed the information acquired to be short-lived as it was unrelated to practical experience. Besides, medical schools could not approve of teachers who gave preference to the basic knowledge needed to obtain a diploma over the medical and surgical education necessary to practise.

Students who did not study sufficiently and faced potential failure might have turned to cheating. Competence in an oral examination was difficult to fake because lack of talent was laid bare. Some students therefore arranged for a friend to take the examination in their place. In 1819, for example, a gentleman named Bennet impersonated and obtained the LSA for a candidate called Fox. When the deception was discovered, the Society of Apothecaries prosecuted the impostor.⁶² In 1834, a young man also tried to pass himself off as another candidate at the College of Surgeons, and the College similarly ordered both men to be prosecuted.⁶³ In Paris, the Faculty faced the same problem and in 1832 it required the signatures of candidates to be verified before they sat examinations.⁶⁴

The value of examinations

Qualifying examinations were supposed to ensure that students had achieved a pre-defined level of medical knowledge and were worthy of becoming practitioners. However, opinions diverged about what examinations actually proved, and their difficulty, scope and organisation were subject to criticisms.

⁶² Barrett, *The Society of Apothecaries*, 187; 200. Since examinations were held in private, other students could not see foul play. Barrett also notes that forged certificates of indentures and attendance at courses were the object of a regular trade.

⁶³ *RSCME*, vol. 2, 16.

⁶⁴ Meding, *Bibliothèque du Paris médical*, 32.

The duration of the examinations provides an idea of their difficulty. In the 1840s, the three 45-minute long intermediary tests for the Paris MD were judged by one professor and two *agrégés* who separately interrogated students for 15 minutes each. For the five final examinations, which each lasted 40 minutes, an additional professor completed the jury. These examinations were both written and oral: students usually picked a question from an urn, wrote a short essay on the subject under supervision, and later read the essay to the jurors, who were free to ask further questions.⁶⁵ For the Society of Apothecaries' Licence examination, the twelve members of the Court of Examiners were divided into four sections, and four candidates were therefore simultaneously questioned by three jurors.⁶⁶ According to John Ridout in 1834, the average examination lasted about one hour and forty-five minutes.⁶⁷ Comparatively, the examinations for the membership of the College of Surgeons were shorter, lasting about 45 minutes. Until 1836-37 candidates were interrogated by all nine members of the Court of Examiners; thereafter, examiners were split into three groups so that each test could be lengthened.⁶⁸

Some reformers maintained that instead of being a real assessment of a student's competence, examinations were purely a formality because the jury's requirements were too low. Delasiauve, for example, claimed in 1843 that the examination of some disciplines by the Paris Faculty of Medicine was still 'disgracefully weak' despite past improvements.⁶⁹ In London, similar accusations were regularly cast against the Society of Apothecaries and the College of Surgeons.⁷⁰ The Society of Apothecaries defended itself against by providing the 1834 Select Committee on Medical Education with figures illustrating an improvement in its examination standards and a great increase in the rejection rate. John Watson, Secretary of the Court of Examiners, assured the Committee that that rate had only diminished in the early 1830s when schools raised their

⁶⁵ Amette, *Code médical*, 70-80.

⁶⁶ RSCME, vol. 3, 46.

⁶⁷ *Ibid.*, 49.

⁶⁸ Cope, *The Royal College of Surgeons*, 137-8.

⁶⁹ Delasiauve, *De l'Organisation médicale*, 95.

⁷⁰ The quality of the University of London MB and MD degrees was not the subject of a debate, suggesting that its standard was satisfactory.

own standards of instruction after realising that examinations were more strictly conducted.⁷¹ George Guthrie, President of the College of Surgeons, also argued to the Select Committee that the rejection rate had increased from less than 8% to more than 12% at the College.⁷² Both Courts of Examiners indicated to rejected candidates which disciplines they had failed and expected them to undertake additional study and to provide new certificates of attendance before re-presenting themselves.⁷³ Nevertheless, despite these improvements, Thomas Wakley wrote in 1840 that after three weeks of questions and answers by a grinder, students easily slipped through the ‘drowsy examination of the College and Hall’.⁷⁴

In England, reformers further complained that examinations were incomplete and did not encompass all the disciplines a practitioner should master. A student could give satisfactory answers to the questions asked by the jury yet remain ignorant in other domains. The legal separation between the examinations in medicine and surgery especially undermined their relevance. The Society of Apothecaries licensed future general practitioners who would administer both surgical and medical treatments, yet it did not examine them in surgery, which was the privilege of the College of Surgeons. Since the MRCS was not required for practising as a surgeon, a regularly qualified practitioner may not have been examined in surgery at all.⁷⁵

English reformers also disapproved of the strictly theoretical nature of examinations. They argued that a candidate could, without ever having attended practical courses, persuade the jury of his proficiency with information gathered from publications and lectures. Since attendance was difficult to control and forged certificates common, practical examinations in midwifery,

⁷¹ *RSCME*, vol. 3, 50.

⁷² *Ibid.*, vol. 2, 42.

⁷³ Barrett, *The Society of Apothecaries*, 209. Candidates rejected by the Society of Apothecaries could not re-present themselves for examination before six months. In 1836, the Court of Examiners of the College of Surgeons decided to give a written examination to a candidate before rejecting him in case his oral abilities were at fault: Cope, *The Royal College of Surgeons*, 137. Many rejections at the Licence examination were due to a poor level of Latin: Barrett, *The Society of Apothecaries*, 239.

⁷⁴ *The Lancet*, (1840-41), ii, 161.

⁷⁵ *RSCME*, vol. 2, 28. The Society of Apothecaries examined on the diseases of women and children but was not allowed by its bye-laws to venture into surgical midwifery. Despite agreeing at first to examine all MRCS candidates in surgical midwifery, as suggested by the Society of Apothecaries, the Council of the College of Surgeons found that they had no authority to institute such an examination, therefore students were not examined at all on that subject.

surgical operations, and clinical diagnosis and treatment would have clearly confirmed a student's abilities.⁷⁶

In Paris, practical examinations were introduced in 1829 when students were required to present six clinical reports taken from cases of patients treated in the Faculty's wards.⁷⁷ However, they were allowed too much time to write these reports and could be helped by other students. In 1835, therefore, the examination on clinical medicine and surgery was revised to make it more practical. Students were to make an oral report on one of the clinical wards' patients assigned to them on the morning of the test. Additionally, students were also asked to prepare an anatomical specimen in the dissecting-room. Despite his overall scepticism about the value of examinations, Delasiauve noted that the introduction of practical tests offered great improvement. He remarked that manuals and grinders had lost some of their importance as students now proved their anatomical knowledge and clinical and surgical abilities in the operating theatre and at the bedside.⁷⁸

The actual level of difficulty of examinations is difficult to ascertain. The number of rejections illustrates either that the examinations were truly demanding or that a high number of candidates were insufficiently trained. In London, the students who did not have the capabilities to pursue their education properly were not weeded out by annual evaluations. Even those who were unsuited for medicine eventually took the qualifying examinations. Yet, even the best prepared students were reluctant to show off their knowledge. Guthrie asserted that candidates rarely produced more than the certificates required, for fear that examiners would expect more from them during the oral tests. The French public examination system and wide publicity of

⁷⁶ Ibid., vol. 3, 30.

⁷⁷ Wiriot, *L'Enseignement clinique*, 83.

⁷⁸ Delasiauve, *De l'Organisation médicale*, 168.

results provided students with the impetus to prepare sufficiently so as not to be ridiculed before their peers and masters.⁷⁹

From 1829, in Paris, the final examinations and the thesis were simply the last in a series of assessments ensuring that students had met successive requirements, and the Faculty was confident that, even if attendance at courses was impossible to enforce, examinations would show students' true value. However, French examinations were often criticised for allowing students to be examined by their professors. Paul Diday argued that this system encouraged rote-learning rather than reasoning, since students simply regurgitated what they supposed the jury expected.⁸⁰ It was more difficult for a student to satisfy an examiner who had not been his teacher, as was regularly demonstrated by the number of Montpellier students who were rejected in Paris, and vice versa.⁸¹ In England, this criticism could not arise because the members of the Society of Apothecaries' Court of Examiners were not involved in teaching, and the teachers who belonged to the College of Surgeons' Court of Examiners were not allowed to examine their own pupils.⁸²

Both curricula and examinations became more demanding through the decades. In 1852, William Basham claimed that previously anyone might have scraped through the LSA and MRCS examinations and that 'idleness and mediocrity were often equally successful with industry and ability'. But the tests of professional knowledge had evolved to become 'more searching and more equitable because more practical and more scientific'.⁸³ Delasiauve similarly admitted that, in the 1840s, the Paris Faculty's examinations had become more strict than before.⁸⁴

⁷⁹ Ibid., 16. In 1846, the Paris Faculty provided a further incentive to succeed by increasing the examination fee (payment for the members of the jury) from 30 Francs to 50 Francs: Corlieu, *Centenaire de la Faculté de Médecine*, 86.

⁸⁰ P. Diday, *Enseignement médical. Nécessité d'un corps examinant distinct du corps professorant* (Lyons, 1865), 8.

⁸¹ H. Kuhnholz, *Le National aristocrate, ou les facultés de médecine de Montpellier et de Paris considérées sous le point de vue de la centralisation et de la décentralisation* (Montpellier, 1843), 12.

⁸² RSCME, vol. 2, 81.

⁸³ Basham, *Introductory Lecture*, 35. Furthermore, although the LSA and MRCS examinations remained easier than the London MB examinations, even physicians acknowledged that they truly tested the capacities of students. In his attack against the College of Physicians, Edward Crisp claimed that the LSA examinations were superior to those of the College of Physicians: E. Crisp, *Examination of the President and Examiners of the Royal College of Physicians of London and of the Medical and Surgical Corporation Bodies of the United Kingdom* (London, 1849), 54.

⁸⁴ Delasiauve, *De l'Organisation médicale*, 95.

Understandably, progress was slow and always fell short of the goals of reformers, whose criticisms were motivated by fears of low professional standards and an overabundance of poorly qualified practitioners. The ideal examinations they devised were hard to implement because they required that all aspects of medical instruction—from the students' preliminary education to the professors' teaching—be improved and that the self-perpetuating weaknesses within the system be eliminated.

The Paris MD thesis

In Paris, the thesis was the ultimate scholarly work undertaken before receiving the MD diploma. It was composed of a memoir and a series of questions and propositions which the student answered orally after presenting his work to the jury.⁸⁵ Until 1837, students could choose their topic, but this led to many instances of plagiarism. Therefore the Faculty decided that students would pick a subject among four questions devised by the professors, although they could treat any topic as an optional addition to their assigned theme. However, this system proved unsatisfactory and five years later, candidates were allowed to base their subject on their own clinical observations if they did not wish to pick one of the Faculty's topics.⁸⁶

Students defended their thesis in front of a jury composed of two professors and two *agrégés*.⁸⁷ Failures were rare and the highest marks logically went to *internes* who, freed from the burden of lectures, were able to perfect their work. Ambitious pupils, like Paul Broca, wrote lengthy works to develop their ideas while, exceptionally, some, like Alfred Donné, were able to deliver breakthroughs in medical science within the usual 24-page format.⁸⁸ The thesis

⁸⁵ In the early nineteenth century these questions were Hippocratic aphorisms but on 4 February 1831, the Faculty replaced them with six propositions on medicine and surgery.

⁸⁶ Amette, *Code médical*, 135.

⁸⁷ For this solemn occasion students wore a gown and mortarboard, which they rented from the Faculty's secretary. This was the only occasion when Parisian students were required to wear a specific outfit. See A. Delage, 'Histoire de la thèse de doctorat en médecine d'après les thèses soutenues devant la Faculté de Médecine de Paris' (Université de Paris, thèse de doctorat en médecine, 1913), 143.

⁸⁸ P. Broca, *De la propagation de l'inflammation. Quelques propositions sur les tumeurs dites cancéreuses* (Paris, 1849); A. Donné, *Recherches physiologiques et chimico-microscopiques sur les globules du sang, du pus, du mucus et des humeurs de l'œil* (Paris, 1831). Donné's thesis was the result of a systematic physiological research on bodily fluids undertaken with the help of the microscope.

represented the crowning achievement of one's medical education and sometimes would remain one's only publication. Each student was given some of the 100 copies printed by the Faculty and offered them to family and benefactors who had helped him through his studies.

Qualification

The minimum age requirements for entering a medical school or taking the examinations, and the length of studies, meant that a student could hope to qualify as *officier de santé* at 19, apothecary at 21, and Doctor at 23 in Paris and London, and 26 in Oxford and Cambridge.⁸⁹ In reality, the age at graduation often exceeded these figures. In 1834, the Select Committee on Medical Education heard that students did not take the Licence of the Society of Apothecaries until they were on average 23 years and two months, and after 27 months of studies instead of the 24 strictly necessary.⁹⁰ Although masters tended to let their pupils leave for London while still legally serving the last years of their apprenticeship, their studies continued well after the indenture had elapsed. In France, studies also tended to last longer than the five years strictly necessary (four years of courses and one year to pass the final examinations and write the thesis). Jean-Claude Caron has determined that in the 1830s and 1840s it took an average of 6.5 years to get the MD degree in Paris, and that the age at graduation was on average 27.5 years.⁹¹

Both English apothecaries' apprentices and French medical students may have contemplated the necessity of taking a diploma in surgery at the end of their studies. In London, as indicated above, the diploma of the College of Surgeons was not legally required to practise surgery. However, very few apothecaries chose not to take the membership examination.⁹² They

⁸⁹ Thomson, *The Choice of a Profession*, 148-50; *Medical Student's Guide and Almanach*, 20-1. A student could also expect to obtain the MD degree at 23 in Scotland. The legal age for taking the LSA, MRCS, first London MB and London MD examinations was respectively 21, 22, 19 and 23. In France, there was no formal age restriction but students could not apply to a Faculty without the *baccalauréat*, which they could not obtain before they were 16. In reality, most were at least 17 or 18. Access to the *écoles secondaires de médecine* was not subject to a minimum age until 1854, when students were required to be at least 17: Bescond, 'Genèse et devenir', vol. 2, 534.

⁹⁰ *RSCME*, vol. 3, 52, 36.

⁹¹ Caron, *Généralisations romantiques*, 55-6.

⁹² In 1834, the Select Committee on Medical Education heard that in the previous ten years, more students had obtained the optional diploma of the College than had obtained the compulsory one of the Society of

considered that the diploma, signed by the greatest surgeons of the time, and the title it provided, were worth the trouble of an additional examination and the sum which the College asked for.⁹³ Yet, in 1845, an anonymous surgeon complained that medical and surgical students had been wrongly led to believe that without the college diploma ‘they could not hope to practise their profession with respectability or success’. He argued that, since the creation of the Fellowship of the College of Surgeons in 1843, the MRCS diploma only recognised in effect that their holders possessed enough expertise for the ‘ordinary exigencies’ of their profession.⁹⁴ In Paris, few students sought the *doctorat en chirurgie*, which implied an extra examination and expense. This degree was legally unnecessary since *docteurs en médecine* were allowed to practise surgery and could apply for the position of hospital surgeon. Only an extremely small minority qualified as *docteurs en chirurgie*, to emphasise a burgeoning ambition of specialising in surgery. In the first few years of the Restoration this drew criticisms from partisans of the separation between medicine and surgery, who argued that the greater social recognition of medicine pushed students to qualify as *docteurs en médecine* and led to the depreciation of surgery.⁹⁵

A minority of students never qualified for the diploma they had prepared. As Bradley, Crowther and Dupree have remarked in their article about Scottish medical students in the 1870s and 1880s, the ratio of completion to non-completion of studies has only been rarely explored by historians.⁹⁶ It is impossible to compare their close study of Edinburgh and Glasgow universities with the situation in London and Paris since no similar studies exist for either of these two cities. Apart from those students who chose to give up medicine for another occupation, or inherited money and no longer needed to find one, ill-health and financial difficulties were usually the

Apothecaries: *RSCME*, vol. 3, 49. This discrepancy was probably due to the number of students who prepared for a military career. They would not practise as apothecaries and therefore did not take the LSA. However, they needed to pass the MRCS before taking the examinations of the military boards.

⁹³ The diploma cost 22 guineas to practise in the countryside and 32 guineas for London.

⁹⁴ *A Few Words on the Fellowship, with a Suggestion Concerning the Present Crisis, Addressed to the President and Council of the Royal College of Surgeons of England By an old Member of the College* (London, 1845), 16.

⁹⁵ By 1816 only 80 students had qualified as *docteurs en chirurgie* while almost 4,000 had taken the MD degree: J. T. Marquis, *Réponse au discours de M. le professeur Hallé, prononcé dans la séance publique de la Faculté de médecine de Paris, le 4 novembre 1815, et aux Mémoires publiés et distribués par cette Faculté* (Paris, 1816), 22.

⁹⁶ J. Bradley, M.A. Crowther, and M.W. Dupree, ‘Mobility and Selection in Scottish University Medical Education, 1858-1886’, *Medical History* 40 (1996), 1, 13.

main reasons which drove a medical student to abandon his studies.⁹⁷ As James Paget's study on his own pupils shows, a certain number of students died before qualifying, but a greater proportion failed their examinations and were forced out of the profession, a fact which may suggest that examinations fulfilled their role despite the criticisms to which they were subjected.⁹⁸ It is possible that in Paris, where a first selection was performed on entry through the *baccalauréat*, the failure rate was lower than London's but in the absence of figures, this remains conjecture.

SETTLING IN PRACTICE

The easiest way of starting out was to form a partnership with an established practitioner. The most logical form of partnership, where a son joined the family practice, enabled the young graduate to ease smoothly into his new position, visiting patients in the country while his ageing father attended appointments at the surgery. He would already know most of the clientele, having previously accompanied his father on visits, or even having been his apprentice. Progressively, he gained his own reputation and took on a greater part of the work. In the 1830s, for example, Richard Weekes joined his father Dick and his uncle Hampton in Hurstpierpoint.⁹⁹ Gilbert Bleu similarly joined his father in Seine-et-Marne in 1848 and the following year inherited the practice which provided him with an annual income of 6,000 Francs.¹⁰⁰ A young man could also partner with a former master, possibly with a view to marrying one of his daughters and taking over the practice after a few years.

The more financially fortunate students found a partial solution to the problem of gaining a ready clientele and a regular income by purchasing an existing practice. Advertisements for available businesses appeared frequently in the medical press. In 1842, for example, the *Provincial Medical and Surgical Journal* advertised a surgery 'in a large and populous town in the West Riding

⁹⁷ Émile Littré, an *interne* who later gained fame as a journalist and writer, never took his doctoral degree because he had to seek employment after his father died, leaving his family in a precarious situation: R. Rullière, 'Les Études médicales d'Émile Littré', *Revue de Synthèse* 103 (1982), 258.

⁹⁸ Paget, 'What Becomes of Medical Students?', 239.

⁹⁹ Ford, *A Medical Student at St Thomas's Hospital*, 4.

¹⁰⁰ Broca, *Correspondance*, vol. 2, 199.

of Yorkshire, affording an excellent opening for a gentleman about to commence practice.¹⁰¹ Recognising that many graduates would have limited means some incumbents allowed their successors to pay in instalments.¹⁰²

Those students who lacked any financial support could become assistants to established practitioners. Unlike partnerships, in this arrangement the young man merely received a salary for his services and would not in time, take over the practice. Eventually, he could hope to earn enough money and gain enough experience to settle on his own.

Many new practitioners found themselves in the more difficult position of establishing their own practice. Despite Bob Sawyer's assertion in *The Pickwick Papers*, settling in practice took more than putting on a black suit of clothes and a pair of spectacles, and looking solemn.¹⁰³ The new practitioner would only develop a clientele if he actively sought it. His first few months were devoted to advertising his services through acquaintances and friends and making himself known in the right society. It was extremely difficult to settle with no relations to offer support, making recommendations essential.¹⁰⁴ *Middlemarch's* Lydgate relied on a letter written by his uncle to the influential Mr Brooke to be properly introduced into the community.¹⁰⁵

Young practitioners' success depended on organisation, patience and dedication. They were caught in a vicious circle where they needed to demonstrate their talent to obtain clients and needed to have patients to prove their talent. A French doctor, Charles Labrune, regretted that young men soon learned, from the example set by their teachers, to exploit the lucrative side of medical practice rather than its scientific aspect, and to court the rich and influential families

¹⁰¹ *Provincial Medical and Surgical Journal*, 4 (1842) [P.M.S.J. Advertiser].

¹⁰² Peterson, *The Medical Profession*, 99.

¹⁰³ Dickens, *The Pickwick Papers*, 622. In England, the apothecary required premises on the street to establish his shop while the French practitioner's *cabinet* could be apartments with a waiting room and an office.

¹⁰⁴ 'When I first began business in London... I knew nobody, I was known to very few... For a man to attempt to set up in London, to practise surgery and pharmacy, without connexions, without even acquaintances, was a bold undertaking': W. Chamberlaine, *Tirocinium Medicum; or a Dissertation on the Duties of Youth Apprenticed to the Medical Profession* (London, 1812), xiv.

¹⁰⁵ Eliot, *Middlemarch*, 92.

who could bring necessary support.¹⁰⁶ Young practitioners quickly realised that medical practice required subtlety and adaptation to patients. Sometimes, behaving like a gentleman could be detrimental, as was speaking in a language that patients could not understand or acting in a way foreign to them. Munaret, for example, lamented that some of his country patients preferred his direct competitor (an *officier de santé*) to him because they thought that he was too much of a gentleman.¹⁰⁷

Gaining the patients' trust took time and it would sometimes be several years before the young practitioner could sustain himself. Opening a surgery incurred expenses for furniture, instruments and medicines, and in the country possibly a horse. The first few years in practice were often more physically and mentally straining, and financially exhausting, than the years of study. Henry Peart, for example, relied heavily on his parents' financial support during his first two years as a general practitioner in Feckenham. In 1830 and 1831 they gave him more than £350 while his income during his first eighteen months in practice was only £52 15s.7d.¹⁰⁸ In France, Munaret suffered the same difficulties when entering practice but his parents were unable to assist him and he had to rely on his own resources.

Most English general practitioners settled in the country while the great majority of pure surgeons and physicians established themselves in towns.¹⁰⁹ French doctors were also more likely than *officiers de santé* to settle in urban areas. In the 1850s, Munaret argued that ambitious students did not settle in the country by choice. Only homesickness or health, but more often a humble financial position obliged them to make such a decision.¹¹⁰ He estimated that settling in the French countryside cost about 1,900 Francs, plus 2,615 Francs annually, which represented a

¹⁰⁶ C. Labrunet, *Les Malades et les médecins. Études sur l'enseignement et l'exercice de la médecine en France au XIXe siècle* (Paris, 1859), 14-15.

¹⁰⁷ Munaret, *Le Médecin des villes*, 12.

¹⁰⁸ Loudon, 'A Doctor's Cash Book', 254.

¹⁰⁹ To settle within seven miles of London, a physician required the Licence of the College of Physicians. The rule was objected to as arbitrary, especially by those holders of the Extra-Licence who were refused the Licence when moving to London. Edward Crisp enquired in a pamphlet how the College could justify that a physician 'was good enough for Richmond but not for Putney': Crisp, *Examination of the President and Examiners*, 11.

¹¹⁰ Munaret, *Le Médecin des villes*, 32. Munaret found it extremely difficult to establish himself. He settled first in the country for financial reasons, but could hardly sustain himself and decided to move to a town where a worse outcome forced him to settle back in his village.

heavy burden in the first years.¹¹¹ Establishing a practice in a town was even more costly, incurring one-off expenses of 2,200 Francs and annual charges of 4,280 Francs; furthermore, Munaret claimed that a proportionate income was difficult to obtain.¹¹²

Newly-qualified practitioners with financial means chose to settle in towns where a richer clientele was available and where they could hope to obtain a hospital or medical school position. However, they faced the strong competition of established practitioners. Settling in London or Paris was even more challenging. Few succeeded unless they joined a partnership or could demonstrate superior knowledge and skills.¹¹³ Even talented students found it difficult as the opposition they encountered was proportionate to their ambition. Despite his experience at the Moorfields Hospital in London and his position as anatomical demonstrator at Queen's College, John Crosse, for example, was unable to establish an eye infirmary in Dublin because he failed to gain the Membership of the Royal College of Surgeons of Ireland.¹¹⁴ Jean-Ythier Poumet, a former *interne* who had unsuccessfully competed for the *agrégation* still complained, after more than fifteen years in practice, about the difficulties of securing a clientele.¹¹⁵

If the young practitioner was cautious in choosing the right location and if he could, in due time, seize the opportunity to obtain a post in a local hospital or another public position, his professional prospects improved. The position itself might only offer a small income but the community recognition it provided strengthened both his reputation and clientele. After a few years he might even enjoy a comfortable financial situation.

¹¹¹ The one-off expenses for a country practice included a horse and harness, books, instruments and some medicines. The annual expenses included rent, the horse's food and litter, books and periodicals, and the doctor's living expenses: *ibid.*, 6-7.

¹¹² The one-off expenses for a town practice included mainly furniture and instruments. The annual expenses included rent and living expenses, as well as socialisation costs: *ibid.*, 7-8.

¹¹³ Trelloz noted that, in Paris, the first task of the newly established doctor was to gain the confidence of his concierge, who would spread favourable information about him: Trelloz, 'Les Médecins de Paris', in *Paris ou le Livre de Cent-et-Uns*, vol. 11, 165.

¹¹⁴ Crosse, *A Surgeon in the Early Nineteenth Century*, 65.

¹¹⁵ Paris, Bibliothèque Jacques Delarue, Archives de la Société anatomique de Paris (Carton 4, Letters from J.Y. Poumet to J. Bouteiller).

CONCLUSION

The final year of a medical student's education represented his last opportunity to complete his knowledge and choose the career which suited his talent, capabilities and personal circumstances. Where he was likely to face strong competition, he may have used prizes, publications, specialisation or international experience to distinguish himself from other practitioners. After his examinations he would enter into practice, often with apprehension, and start his strenuous professional life. His entire medical education was now put to the test and determined whether or not he would be successful in his career.

Munaret described in heart-felt words the responsibility he felt when he was called to treat his first patient. He suddenly realised why the training he had endured had been so demanding. And he contemplated with dismay the time he had wasted pursuing the city's distractions, listening to professors' baroque classifications and shaky theories, or reading hundreds of volumes which may have been summarised into a hundred pages.¹¹⁶

Evaluating the adequacy and quality of the instruction dispensed in the schools and the education actually received by medical students remains quite a difficult task. In 1869, James Paget published a very insightful survey of some of his former pupils, comparing their conduct as students with their success as practitioners.¹¹⁷ By linking failure to poor conduct, Paget seemed to imply that personality, more than any other factor, was responsible for one's future. This fulfilled the prophecy he had made in 1846 when addressing an audience of new pupils, that their 'future success as practitioners would be in direct proportion to their labours as students'.¹¹⁸ Whether his analysis held value or not, it did not address the causes of indolent attitudes towards study and disregarded the factors that propelled students through their training and defined the career they eventually practised. Students who, from personal circumstances, had few hopes of ever rising in the profession, grew increasingly discouraged with their studies and fell into bad

¹¹⁶ Munaret, *Le Médecin des villes*, 499.

¹¹⁷ Paget, 'What Becomes of Medical Students?'

¹¹⁸ Paget, *The Motives to Industry*, 8.

conduct. However, those who were within reach of opportunities were encouraged to seize them. Although the Parisian system legally offered the same chances to all, the student hierarchy defined by the *concours* quickly determined the future elite, and the unsuccessful student was similarly left with little incentive to excel.

CONCLUSION

Abraham Flexner's claim, in 1925, that 'the English type of school did not, in the course of the nineteenth century, differ materially from the French, even though the French was in name a university faculty while in England the medical school was practically independent', stemmed from his focus on the integration of laboratory research into medical instruction in the second half of the century, when the German model of training became the new gauge for medical education. From this viewpoint, French and English medical establishments lagged behind the German universities, which had rapidly established large laboratories for the use of both professors and students. Even when the superiority of German research became obvious in the 1850s, neither the Paris Faculty nor the powerful Parisian hospital hierarchy was ready to abandon the anatomo-clinical teaching which had been the foundation of their earlier reputation. Although English teachers welcomed foreign advances more easily than the French, the lack of institutional unity in London meant that changes were adopted only by individual schools, among the few that could afford expensive laboratories. English and French establishments remained mainly pathological-clinical schools, in which investigation and teaching were confined to hospital wards and dissecting-rooms. Whereas German university professors dedicated a great deal of time to scientific exploration and instructed their students in emerging disciplines, such as histology and experimental physiology, most English and French teachers still held hospital positions and focused their research on clinical cases.¹

If we accept that English and French schools came to provide a similar kind of medical education in the light of the newer German educational paradigm, we must recognise that they remained institutionally very distinct. England did not adopt a statist model, but by introducing stricter regulations in the medical education system the differences with the more structured French system tended to diminish. Flexner's broad comment on the similarity between English and French schools thus is only partially valid for the second half of the nineteenth century and certainly less convincing for the first. Like Thomas Bonner, I have argued, on the contrary, that

¹ Flexner, *Medical Education: A Comparative Study*, 27-30.

institutional peculiarities profoundly affected how medical instruction was delivered on both sides of the Channel.² Throughout the period studied in the present work, the structure and purpose of French and English medical education clearly differed, influencing the content and quality of the instruction received by rank-and-file and elite practitioners alike. The French government had authority over medical education and shaped it broadly according to meritocratic ideals and national needs, designing a thorough theoretical and practical training for elite practitioners. By contrast, the English government's laissez-faire attitude toward medical education allowed licensing bodies and medical schools to organise instruction to suit their aims. Competition, rather than collaboration, led to homogenisation and improved standards, and the medical schools attached to the large London hospitals gradually emerged as the leading providers of the instruction required by the licensing authorities.

This study has enriched Bonner's more wide-ranging contribution by quantifying and qualifying the institutional differences between French and English medical education. It has shown that the French government's and the English corporations' roles in defining medical instruction in their respective countries led to the emergence of different paradigms of education. Although medical schools did not overtly stress a particular aspect of training, a statistical analysis of their requirements confirms the different emphases remarked by students and practitioners at the time. Whereas the French MD curriculum leaned towards anatomico-clinical investigation, the English degrees and diplomas insisted upon practice and treatment, a disparity which implied different teaching methods in the clinical and anatomical disciplines. The comparison with England thus tends to reinforce the traditional specificities associated with of the 'Paris School' such as the focus on pathological anatomy and the role of hospital medicine.

However, neither of these paradigms proved entirely satisfactory, and the first half of the nineteenth century was a period of tension between the aims assigned to medical education by the licensing authorities and the instruction available to students. Frequent complaints and

² Bonner, *Becoming a Physician*, 132, 145.

appeals for reforms indicate that both the French and English systems failed to provide completely adequate training.

The Paris Faculty, designed to instruct the professional elite through comprehensive courses, also trained, in effect, a large student body with more modest, practical ambitions. However, its structure prevented it from meeting the different educational needs of these two categories of students. Parisian pupils, therefore, commonly complemented—or even replaced—the overly theoretical Faculty lessons with private courses. Furthermore, despite numerous rounds and lessons, the crowded wards offered only limited clinical experience, and the emphasis on symptomatology left pupils without a clear understanding of treatment. Additionally, the meritocratic aspirations of medical education only involved the minority of students who contended for prizes and for positions awarded by *concours*.³

The more modest aims of the Society of Apothecaries and the College of Surgeons simply sought to ensure that English practitioners possessed a sufficient education to fulfil their role adequately. Only the University of London had a greater ambition, seen as a compromise between the expensive elite education offered by the universities of Oxford and Cambridge, and the more accessible training of surgeon-apothecaries. However, the medical schools, independent from the licensing authorities, followed their own rules and interests. They taught prospective physicians and surgeon-apothecaries alike, and did not seek to adapt their lessons to fit a single curriculum. Moreover, the teaching they provided was often inadequate. Hurried rounds and scant clinical lessons limited bedside learning while practical anatomy suffered from a chronic shortage of bodies which the 1832 Anatomy Act did not entirely resolve. Furthermore, the absence of compulsory intermediary examinations encouraged students to cram during their last months of training instead of gradually learning the skills and techniques of the profession.

³ It is possible that the more modest Montpellier and Strasbourg faculties (which had fewer professors than Paris) were better adapted to their equally more modest mission than their Parisian equivalent. Many under-funded *écoles secondaires*, meanwhile, also had trouble fulfilling the *officiat* requirements imposed by the government.

Despite the demands of many reformers, the French and English systems of medical education were not reorganised significantly between 1815 and 1858 and only limited measures were taken to remedy defects. However, the gradual improvement of English medical studies clearly accelerated between 1827 and 1835, when the Society of Apothecaries increased its requirements and introduced a structured curriculum. Thereafter, progress was made by medical schools seeking recognition by the University of London and who mirrored the offerings of University College London (through improvements such as consistent courses, regular examinations and greater access to junior hospital positions). In France, the government did not seek to reorganise a system it judged to be superior to its foreign equivalents, and simply established new chairs and introduced intermediary examinations (1829) and mandatory hospital experience (1843). The new *officiat* curriculum (1837) and the possibility of transferring quarterly matriculations from *écoles secondaires* to faculties improved the education of the more modest students and encouraged them to obtain the MD degree.

This comparison between medical education in France and England illustrates that both the French directive system and the English laissez-faire model failed to eliminate their shortcomings, improve standards and adapt to the rapid changes in medical science. The struggle towards stricter regulations and greater homogenisation underlined the difficulties in reforming established systems, whatever their nature. The dual French system of instruction created in 1803 proved too rigid. Successive governments were unable to find an economic, social and professional compromise between *docteurs* and *officiers*, and thus perpetuated a conflicting situation. Furthermore, the network of weak *écoles secondaires* was detrimental to both the status of *officiers* and to the dominant—but crowded—Paris Faculty. The failed reform of 1847 was the last significant attempt to give new foundations to the profession. Apart from the creation of new courses in the 1860s and the reconstruction of the *École pratique* from 1876, which disrupted the availability of traditional private courses, there was no major reform to medical

education until the abolition of the *officiat* in 1892.⁴ In England, meanwhile, professional interests were too diverse and contradictory to permit a consensus. General practitioners were prevented from radically improving their instruction by the antagonism between the corporations, and by their failure to obtain their own college. After countless aborted reforms, the 1858 Medical Act finally offered some progress in the form of an official register of properly qualified medical men. Mandatory apprenticeship was abrogated and the generalisation of preliminary examinations in 1861 contributed to raising standards.

This comparative study reinforces Mathew Ramsey's opposition between strong medical professionalisation in France and a much more diffuse medical nebula in England. Whereas in France the 1803 law created a single two-tiered profession clearly distinct from unqualified practice, the lack of regulation for the practice of surgery, the persistence of a variety of diplomas and training, and the corporations' inability to bring irregulars to trial meant the absence of a monopoly on medical practice in England.⁵ Nevertheless, despite the absence of unity in the English medical profession before 1858, the Apothecaries' Act introduced some structuring elements to general practice (mandatory licence, educational requirements) and its application by the Society of Apothecaries contributed to unifying the profession by improving the curriculum and raising standards, an achievement which cannot be neglected considering the many actors and their conflicting interests.⁶

The present thesis, by providing insights into the lives of English and French medical students inside and outside medical schools, illustrates how young men moved into professional education during the first half of the nineteenth century and how they chose a particular route to

⁴ In 1892, the French Parliament voted a law which reorganised medical practice and suppressed the 1803 law, effectively abolishing the *officiat de santé* and the *Doctorat en chirurgie*.

⁵ M. Ramsey, *Professional and Popular Medicine in France, 1770-1830. The Social World of Medical Practice* (Cambridge, 1988); See also M. Ramsey, 'The Politics of Professional Monopoly in Nineteenth-Century Medicine: the French Model and its Rivals', in G. Geison (ed.), *Professions and the French State, 1700-1900* (Philadelphia, 1983), 225-305.

⁶ The lack of regulation of surgical practice was also counterbalanced by the success of the optional diploma of the Royal College of Surgeons, which was sought after by the great majority of apothecaries.

fulfil their ambitions. The comparison between France and England also reveals the social dynamics of two distinct societies where financial means, social position, and family background equally influenced the prospects of success, but where merit and proficiency were recognised and rewarded in different ways. While English students bitterly complained against the lack of meritocracy in the medical education system, their French counterparts realised that *concours*, while selecting deserving students, were sometimes riddled with favouritism.

For medical students, the initial steps into the realm of medicine saw the exposure to death, poverty, sickness and fear countered with discovery, burgeoning experience, and camaraderie. Beyond the national distinctions already noted, the social and educational gap between the apprentice tending to a surgery and the university student attending lectures illustrates the significant differences in each country's education of prospective rank-and-file and elite practitioners. At the medical school, however, all categories of students experienced very similar daily routines, divided between the lecture theatre, the hospital wards, the dissecting room, the botanic garden, the library and their own study-room. The heavy workload and low parental allowances meant that idleness and bad behaviour were more occasional than regular. Many students would scrimp and save throughout the month to openly indulge in a night at the theatre or a party. However, daily struggles to fulfil the curriculum's requirements kept the majority too busy to stray. Nevertheless, a minority easily painted the picture for the majority, and medical students suffered from a poor reputation in society until the last decades of the century. Although partly based on the dissipated conduct which their freedom outside the school led them to adopt, their notoriety owed much to the nature of medical studies, and in particular to dissections. French students enjoyed greater liberty than their English counterparts in society and displayed their independence by maintaining open relationships with women, participating in political movements, and deriding religion. By the 1860s, the public fear of illegal dissections receded, stricter entry requirements and disciplinary measures weeded out the more rowdy

characters, and unruly conduct became increasingly limited to hospital common rooms and dissecting-rooms, thus improving the social image of students.

Although French and English medical pupils were more dedicated to their studies than the caricatures of the period implied, the education they effectively obtained rarely matched the licensing bodies' goals, partly because the instruction provided was insufficient or inadequate, and partly because students only respected their assigned curriculum on the surface. Until 1803 in France, and to a greater extent until 1815 in England, medical students were free from constraining requirements and would select what they needed from the available lessons, following their own path rather than one assigned by medical schools or licensing authorities.⁷ This study confirms that, when stricter requirements were established in both countries, the tradition of shaping one's own education to suit one's needs persisted to some degree. In England, there was no real rupture with the eighteenth-century model but instead a solidification of instruction which gradually encouraged students to take all their courses in the same establishment. The English system, where qualifying requirements were considered as minimum pre-requisites, upon which students constructed their own personalised training, retained an intrinsic freedom. By contrast, in France, where the curriculum was meant to be followed exactly, students effectively bent the rules in reaction to an unsatisfactory model of instruction. Although the Paris Faculty was supposed to provide all the training needed through its official teaching, it also implicitly encouraged students to supplement their instruction with more practical courses delivered outside the formal requirements but inside its own buildings by its own *agrégés*. During this period, therefore, both the French and the English systems were satisfied with a well-balanced chaos which did not absolutely require the adoption of a more rational structure.⁸

⁷ Susan Lawrence and Lisa Rosner, for example, have both described the diversity of instruction undertaken by London and Edinburgh students in the late eighteenth and early nineteenth centuries: Lawrence, *Charitable Knowledge*; Rosner, *Medical Education in the Age of Improvement*.

⁸ Hannaway and La Berge's remark about Brockliss's re-evaluation of eighteenth-century French medicine that "the currently held notion that a medical school incorporates all aspects of medical training has blinded historians to

As success depended on optional elements (dresserships, *internal*) students were encouraged to circumvent requirements and not to limit their instruction to official or regular courses. This implied a heavy personal commitment and made it essential to maintain the right attitude towards study. This research offers a glimpse into students' personal motives to succeed and the strengths and weaknesses of individuals placed in situations where their efforts and dedication were primarily responsible for the outcome of their studies. While some quickly gave up their ambitions and became discouraged, others possessed the necessary stamina and self-discipline to study profitably and were able to use the inner workings of the system (student hierarchy, patronage) to rise up through the professional ranks.

The conclusions drawn from this study would gain strength and greater validity if underpinned by a detailed prosopographical analysis, which would provide statistical data on the social background, geographical origin, previous studies, type of practice chosen and ulterior career of medical students. Measuring the link between the social origin and future career of several cohorts of medical students via the courses and education undertaken, would qualify factors which affected their instruction, such as the influence of the student hierarchy at the Paris Faculty or the recourse to additional courses for English students. The role of private courses and grinders in both Paris and London offers another avenue for further research into the rationality or irrationality of the educational systems. Further research would determine the influences of the French and English models of education on the emergence of common schools of thought and practices. Expanding the current research to include Edinburgh and the other Scottish universities would provide a more comprehensive view of British medical education. In particular, it would give a greater importance to university-trained practitioners, who have been slightly eclipsed by surgeon-apothecaries in the present work. With its university system and its

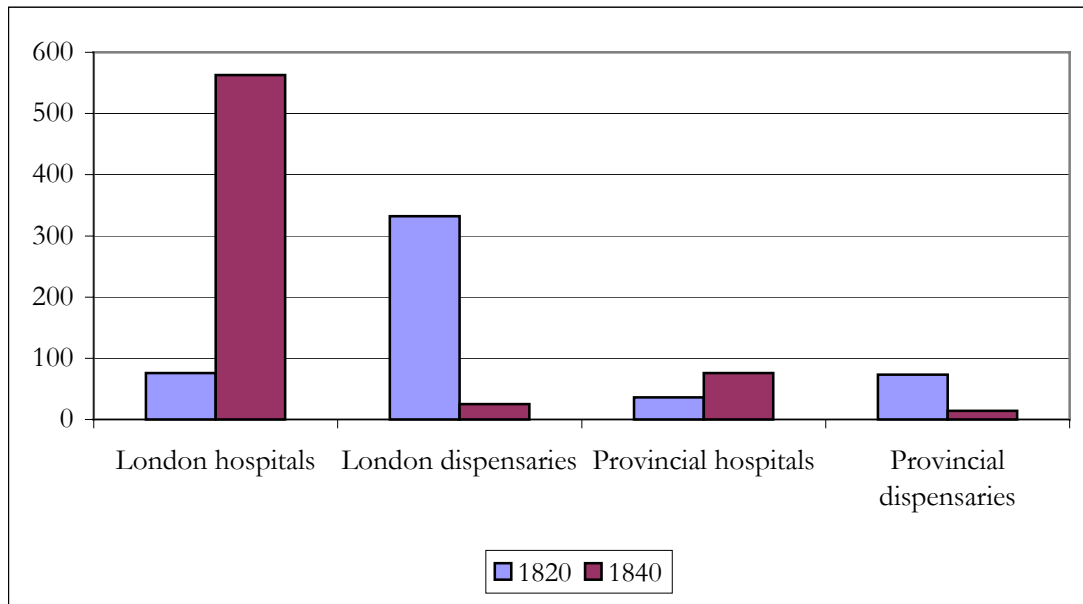
the range of possibilities for education available to a prospective practitioner", is still valid for the mid-nineteenth century: C. Hannaway and A. La Berge, 'Paris Medicine: Perspectives past and present', in C. Hannaway and A. La Berge (eds.), *Constructing Paris medicine* (Amsterdam, 1998), 42.

thinner frontier between medicine and surgery, Scotland may have represented an intermediary model between France and England. Similarly, a more thorough study of *officiers de santé* would provide a better understanding of French general practice.

Pursuing this comparative research after the 1850s would probably reveal a certain continuity in the specificities of each educational system, even as their differences diminished. From the 1860s, French and English medical education became even more precise and demanding, as they contributed to the advancement of medical science and evolved to take progress into account. Medical schools were able to enforce their curriculum through stricter regulation and regular examinations. The traditional liberty of medical students was gradually curtailed, as the curriculum's flexibility was reduced, and students had to make choices within the confines of the system, exclusive of exterior elements. Although the new regulations brought rigidity and limited the individualisation of instruction, they also achieved higher standards. In the previous period, some brilliant pupils, like Paul Broca and James Paget, successfully used their freedom to personalise and improve their training; however, not all students had their discernment and talent, and the sacrifice of this liberty was probably necessary to improve the instruction of the whole student population. An era of English and French medical education, with its specific structure and culture, had thus closed.

APPENDICES

Figure 1. Origin of the certificates of attendance at medical practice presented by candidates to the Licence of the Society of Apothecaries in 1820 and 1840



Source : London, Guildhall Library, MS 8241 (Archives of the Society of Apothecaries)

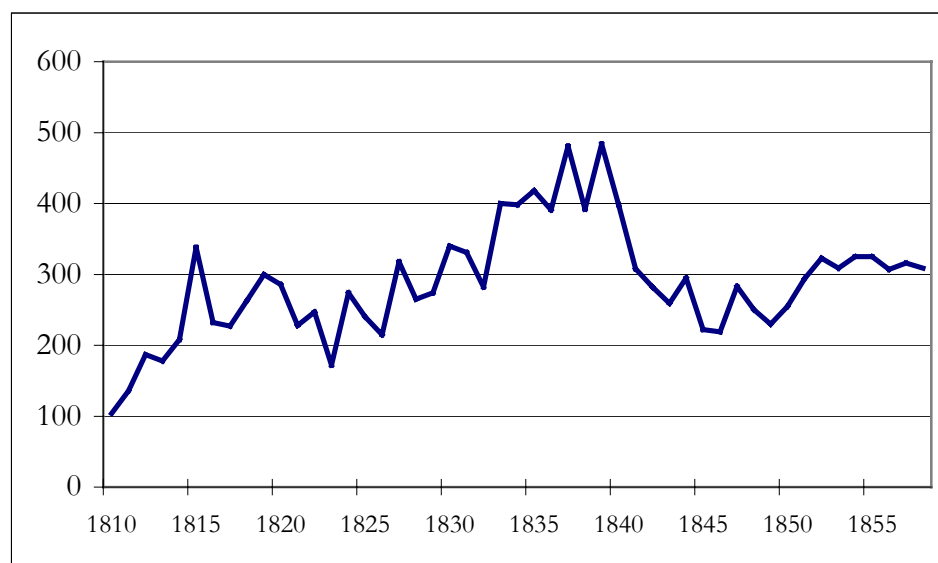
This graph clearly demonstrates the diminishing influence of dispensaries in the teaching of clinical medicine over the period. See page 57.

Figure 2. Fees for attendance at all courses required by the College of Surgeons and Society of Apothecaries in various London medical schools, 1854

St Bartholomew's Hospital	£94 10
Charing-Cross Hospital	£71 05
St George's Hospital	£96 12
School adjoining St George's Hospital	£81 18
Guy's Hospital	£90 00
King's College	£93 09
London Hospital	£88 04
St Mary's Hospital	£89 05
Middlesex Hospital	£75 00
St Thomas's Hospital	£90 00
University College	£90 00
Westminster Hospital	£71 08

Source: *The Lancet* (1854), ii, 354.

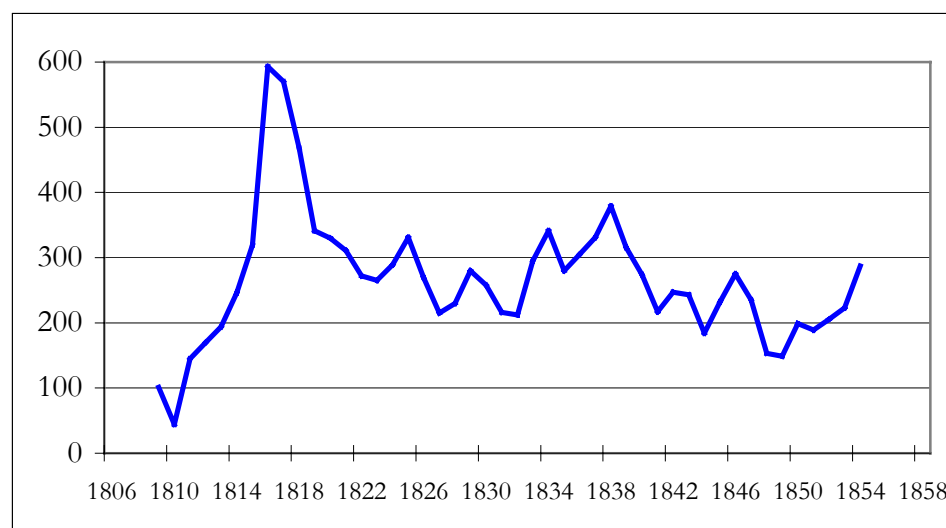
Figure 3. Annual number of diplomas of *Docteur en Médecine* and *Docteur en Chirurgie* delivered by the Paris Faculty of Medicine, 1806-1858



Source: Paris, BIUM, Table des thèses de Docteur en Médecine et en Chirurgie soutenues devant la Faculté de Médecine de Paris.

The peak between 1834-1840 was due to the temporary abolition of the baccalauréat ès-sciences as pre-requisite between 1831 and 1837.

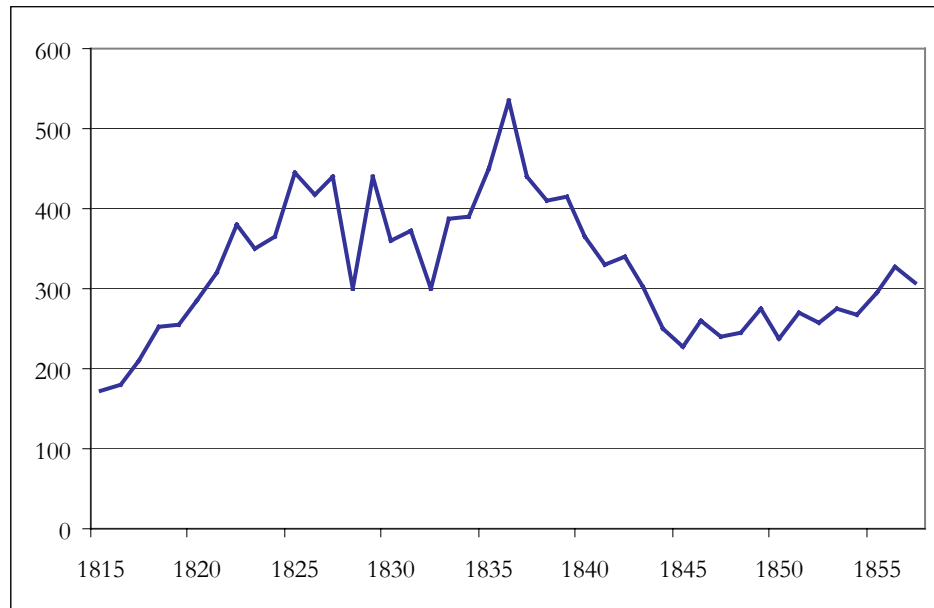
Figure 4. Annual number of *officier de santé* diplomas delivered by the faculties and departmental juries, 1806-1854



Source: J. Bescond, 'Genèse et devenir de deux ordres de praticiens en France. Les Officiers de santé de 1803 à 1892' (Université Paris-VII, thèse de doctorat en épistémologie et histoire des sciences, 1998).

The peak in 1816-18 was due to the great number of army surgeons seeking a diploma after their demobilisation (end of the Napoleonic wars). After 1854 (abolition of departmental juries), the number of *officiers* diplomas delivered annually declined steadily until their abolition in 1892.

Figure 5. Annual number of Licences delivered by the Society of Apothecaries, 1815-1858



Source: London, Guildhall Library, MS 8241 (Archives of the Society of Apothecaries); Society of Apothecaries, *A Statement by the Society of Apothecaries on the Subject of their Administration of the Apothecaries' Act* (London, 1844).

The troughs in 1828 and 1831 are due to the introduction of stricter requirements (respectively attendance at medical practice and Latin examination). The decrease between 1838 and 1845 underlines the more demanding curriculum established in 1835 and the efforts by medical schools to raise standards. The growing complaints about the overcrowding of the profession may also have dissuaded some young men from selecting medicine as their occupation.

Figure 6. Distribution (per session) of the number of hours of courses required for various diplomas and degrees

Paris Faculty of Medicine MD (1821)

Year of study	1		2		3		4		Lessons per week	Duration (hours)	Hours of lessons
	W	S	W	S	W	S	W	S			
Courses											
Anatomy and Physiology	68	78.75	68	79					3	1.25	293
Dissections	216		216		216				6	2	648
Medical chemistry and Pharmacy	54	63							3	1	117
Surgical pathology			54	63	54				3	1	171
Medical pathology					54	63			3	1	117
Midwifery						63			3	1	63
Forensic medicine							54		3	1	54
Materia medica								63	3	1	63
Botany		63							3	1	63
Physics and Hygiene		63						63	3	1	126
Operations						63			3	1	63
Clinical surgery		315	270	315	270				6	2	1170
Clinical medicine						315	135	157.5	4*	2	607.5
Rare cases (<i>Clinique de Perfect.</i>)							135	157.5	3	2	292.5
Total number of hours required											3848

Paris Faculty of Medicine MD (1845)

Year of study	1		2		3		4		Lessons per week	Duration (hours)	Hours of lessons
	W	S	W	S	W	S	W	S			
Courses											
Anatomy	81		81						3	1.5	162
Physiology		63		63					3	1	126
Dissections	216		216		216				6	2	648
Chemistry	54								3	1	54
Materia medica and Therapeutics							63		3	1	63
Pharmacy and organic chemistry		63							3	3	63
Natural history (Botany)		63							3	1	63
Medical physics		63							3	1	63
General pathology			54						3	1	54
Surgical pathology			54	63	54	63			3	1	234
Medical pathology				63	54	63	54		3	1	234
Midwifery						63			3	1	63
Forensic medicine							54		3	1	54
Morbid anatomy								63	3	1	63
Operations						63			3	1	63
Hygiene								63	3	1	63
Clinical surgery		315	270	315	270				6	2.5	1170
Clinical medicine						315	135	157.5	4*	2.5	607.5
Clinical midwifery							135	157.5	3	2.5	292.5
Hospital position			108	126					6	1	234
Total number of hours required											4374

W= Winter session
S= Summer session

* 6 lessons per week in Year 3 and 3 in Year 4

Écoles secondaires de médecine (officiat) – 1821

Year of study	1		2		3		Lessons per week	Durations (Hours)	Hours of lessons
Session	W	S	W	S	W	S			
Courses									
Anatomy and Physiology	108		108				6	1	216
Dissections	162		162		162		6	1.5	486
Materia medica and Pharmacy	108						6	1	108
Surgical pathology		126					6	1	126
Medical pathology			108		108		6	1	216
Midwifery				126			6	1	126
Clinical surgery		189	162		81	94.5	4*	1.5	527
Clinical medicine				189	81	94.5	4*	1.5	365
Total number of hours required									2170

Écoles préparatoires de médecine (officiat) – 1845

Year of study	1		2		3		Lessons per week	Durations (Hours)	Hours of lessons
Session	W	S	W	S	W	S			
Courses									
Anatomy and Physiology	162		162				6	1.5	324
Dissections	162		162		162		6	1.5	486
Chemistry and Pharmacy	162						6	1.5	162
Materia medica				63			3	1	63
Natural history (Botany)		63					3	1	63
Surgical pathology		189					6	1.5	189
Operations						189	6	1.5	189
Medical pathology			162		162		6	1.5	324
Midwifery				189			6	1.5	189
Forensic Medicine and Hygiene						63	3	1	63
Clinical surgery		126	108		108	126	6	1	468
Clinical medicine				126	108	126	6	1	360
Hospital position			108	126			6	1	234
Total number of hours required									3114

* 6 lessons per week in Years 1 and 2, and 3 in Year 3

**College of Surgeons and Society of Apothecaries
(Combined unofficial LSA-MRCS curriculum) – 1815-22**

Year of study	1		Lessons per week	Durations (Hours)	Hours of lessons
Session	W	S			
Classes					
Anatomy and physiology	156		6	1	156
Chemistry	65		5	1	65
Materia medica	65		5	1	65
Medicine	156		6	1	156
Medical practice	156		6	1	156
Surgery	156		6	1	156
Surgical practice	156	78	6	1	234
Total number of hours required					988

**College of Surgeons and Society of Apothecaries
(Combined unofficial LSA-MRCS curriculum) – 1845**

Year of study	1		2		3	Hours of lessons
Session	W	S	W	S	W	
Courses						
Anatomy and Physiology	140		140			280
Pract. Anatomy – Demonstrations	100		100			200
Dissections			100		100	200
Chemistry	100					100
Materia medica	100					100
Surgery			50		50	100
Medicine			50		50	100
Midwifery			60	60		120
Forensic medicine				50		50
Morbid anatomy				30		30
Botany		50				50
Surgical practice	195	98	98	49	98	538
Medical practice			98	49	98	245
Total number of hours required						2113

Sources: London, Guildhall Library, MS 8241 (Archives of the Society of Apothecaries); *The Lancet*.

See a more detailed evolution of this combined curriculum below (Figure 7)

London University MB and MD (example) – 1845

Year of study	1		2		3		4		5		6			
Session	W	S	W	S	W	S	W	S	W	S	W	S	Lessons per week	Hours of lessons
Courses														
Descriptive and surgical anatomy	156												6	156
General anatomy & Physiology	156		156										6	312
Dissections	78		156		156								3	390
Chemistry	130												5	130
Practical chemistry		39											3	39
Materia medica and Pharmacy	156												6	156
Practical pharmacy			52										4	52
Botany		48											4*	48
General therapeutics								130					5	130
General pathology								130					5	130
Surgery					104								4	104
Medicine					130								5	130
Hygiene									39				3	39
Midwifery					104								4	104
Comparative anatomy									130				5	130
Morbid anatomy						39							3	39
Forensic medicine									39				3	39
Clinical surgery					78	78							3	156
Clinical medicine					78	78	78	78	156	78	156	78	3	312 780
Clinical midwifery							78						3	78
Total number of hours required													2674	3142
Diploma													MB	MD

* Average between two different summer botany courses.

Source: *The University College, London, Calendar for the Session 1853-1854* (London, 1853); *The Lancet* (1845), ii.

The extra courses necessary for an MB graduate to take the MD examination are shown in brown (students who obtained a place in the First Division at the MB examination were dispensed of one of these two years of clinical medicine).

Unlike the Paris MD, *officiat* and LSA-MRCS requirements shown in the tables above, the London MB and MD requirements illustrated in this table are but an example of a possible curriculum. The requirements were greatly inferior to the courses needed to take the examinations; therefore, to make an accurate comparison with the other diplomas and degrees, it is necessary to take the disciplines examined into account, as well as optional courses. In the example chosen, the student took botany, morbid anatomy and forensic medicine as optional courses, and also took an extra anatomy course during the second winter.

Figure 7. Gradual improvement of the (unofficial) combined LSA-MRCS curriculum

Year of study	1815			1827			1828			1829			1831			1833			1835			1845		
	1	2	W	1	2	W	1	2	W	1	2	W	1	2	W	1	2	W	1	2	3	1	2	3
Session	W	S	W	W	S	W	W	S	W	W	S	W	W	S	W	W	S	W	W	S	W	W	S	W
COURSES																								
Anatomy and physiology	2			2	1		2	1		2	2		1	1		140	140		140	140		140	140	
Anatomical demonstrations				2	1		1	1		2	2		1	1		100	100		100	100		100	100	
Dissections								1			1			1			100			100			100	100
Chemistry	1			1			2			2			1			100			100			100		
Materia medica	1			1			1	1		1	1		1			100			100			100		
Medicine	2				1	1		1	1		1	1		1	1	50	50		50	50			50	50
Medical practice																								
Surgery	2			2			2				2			2			120			120			50	50
Surgical practice																								
Midwifery								2			2						60			60			60	60
Forensic medicine														1			50			50				50
Botany														1			50			50		50		
Morbid anatomy																								30

W= Winter session

S= Summer session

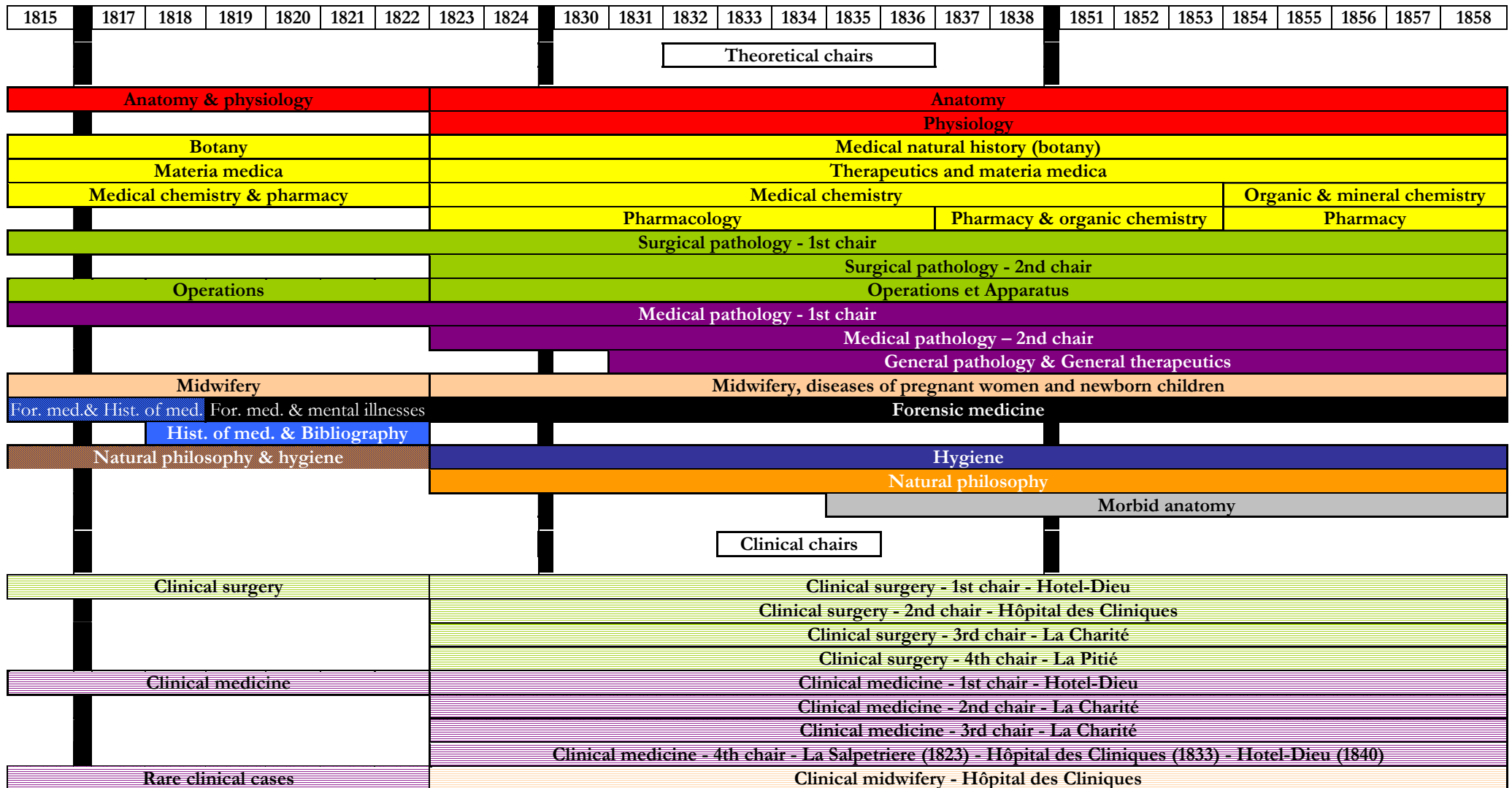
Before 1833, '1' or '2' indicates the number of courses required during that session. From 1833, the number indicates the minimum number of lectures required per course, per session. Before 1831, the course of materia medica also included botany.

- Requirements of the Society of Apothecaries
- Requirements of the College of Surgeons
- Requirements common to both corporations

Sources: London, Guildhall Library, MS 8241 (Archives of the Society of Apothecaries); *The Lancet*.

Much of the improvement of the unofficial LSA-MRCS curriculum occurred in the few years between 1827 and 1835. By then a clear order of studies and a set number of courses were established. See page 77 et seq.

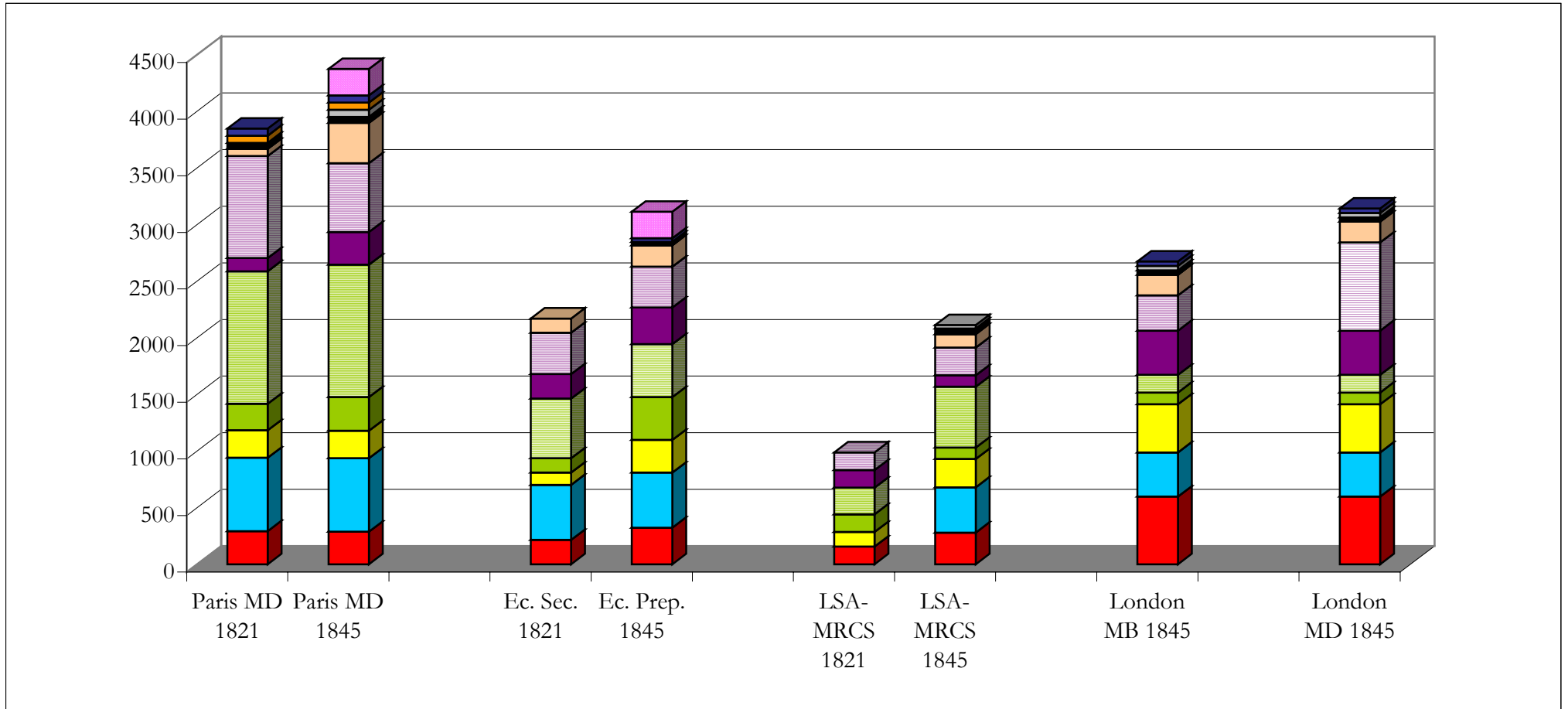
Figure 8. The evolution of theoretical and clinical chairs at the Paris Faculty of Medicine, 1815-1858



Source: F. Huguet, *Les professeurs de la Faculté de Médecine de Paris. Dictionnaire biographique, 1794-1939* (Paris, 1991).

The main evolution occurred in 1823 with the division of five chairs into two and the creation of six additional clinical chairs. See page 79.

Figure 9. Comparison between the number of hours of courses required for various diplomas and degrees, 1821-1845

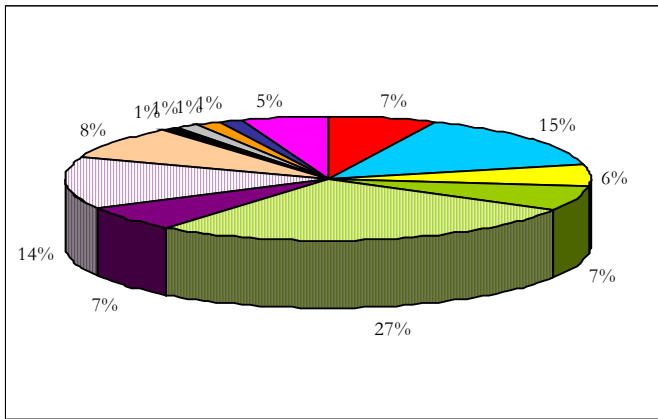


For a comment on these graphs, see page 89.

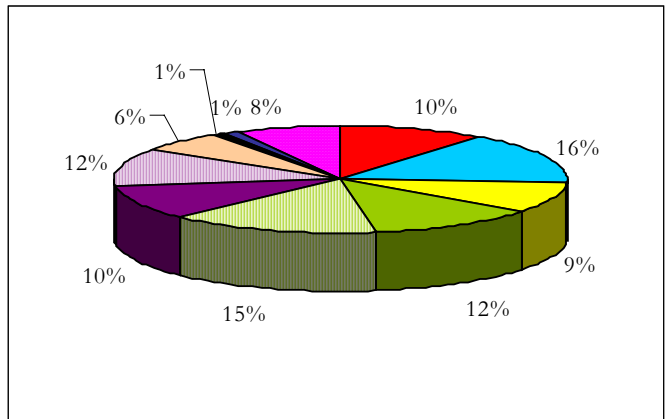
- | | | |
|---|--|--|
| ■ Anatomy and Physiology (theoretical courses) | ■ Medicine (theoretical) | ■ Morbid anatomy |
| ■ Anatomical demonstrations and dissections | ■ Medicine (clinical) | ■ Natural philosophy |
| ■ Chemistry – Botany – Pharmacy | ■ Midwifery | ■ Hygiene |
| ■ Surgery (theoretical) | ■ Forensic medicine | ■ Hospital experience |
| ■ Surgery (clinical) | | |

Figure 10. Distribution of groups of disciplines within the requirements, 1845

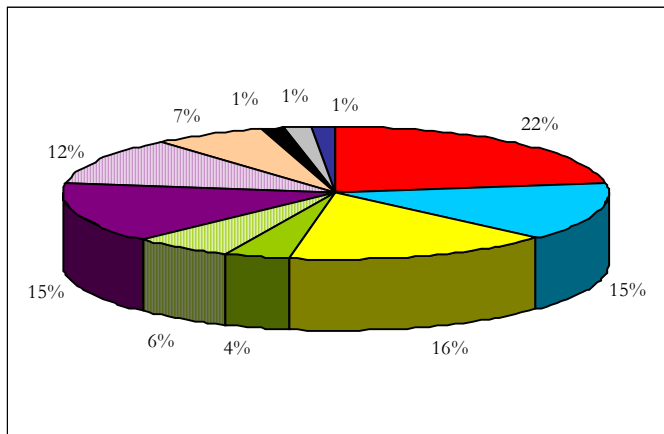
Paris MD



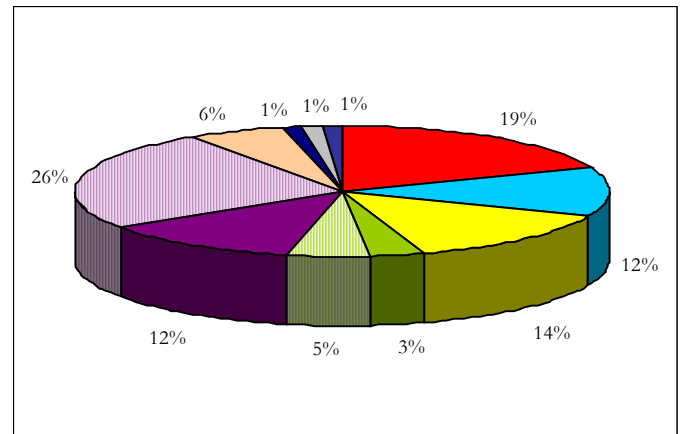
Officiat (Écoles préparatoires)



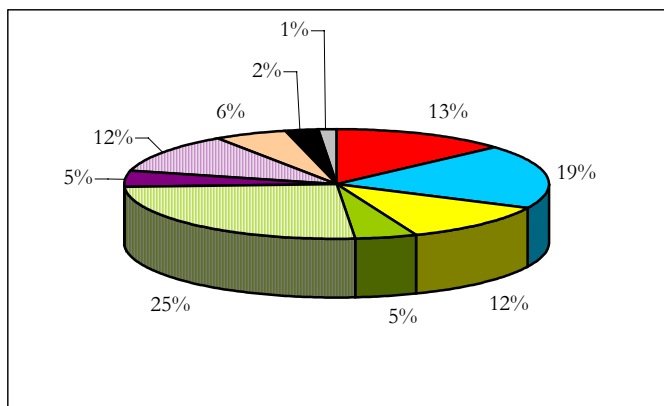
University of London MB



University of London MD

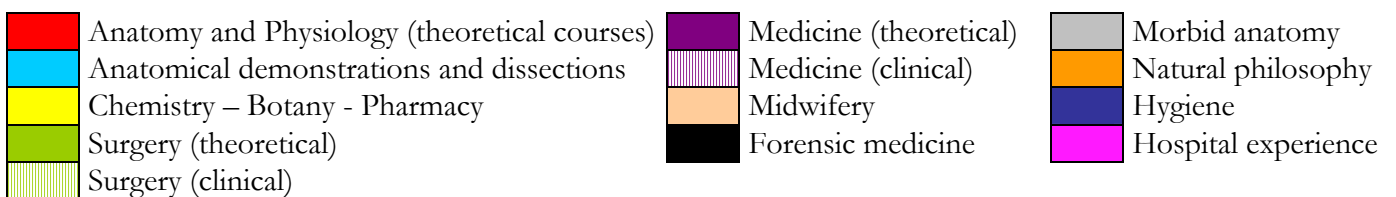


Combined LSA-MRCS (London)



Sources: as above.

The greater proportion of courses of anatomy and physiology for the London MB and MD is partly due to the inclusion of comparative anatomy, and partly to the choice of a second course of anatomy, not strictly required, but probably necessary to take the examinations.



ILLUSTRATIONS

Next page: **Illustration 1. Hospitals and medical schools of London, 1836-37.**

Source: *The Lancet* (1836-37), i. [24 Sept. 1836]. © Wellcome Photographic Library (London)

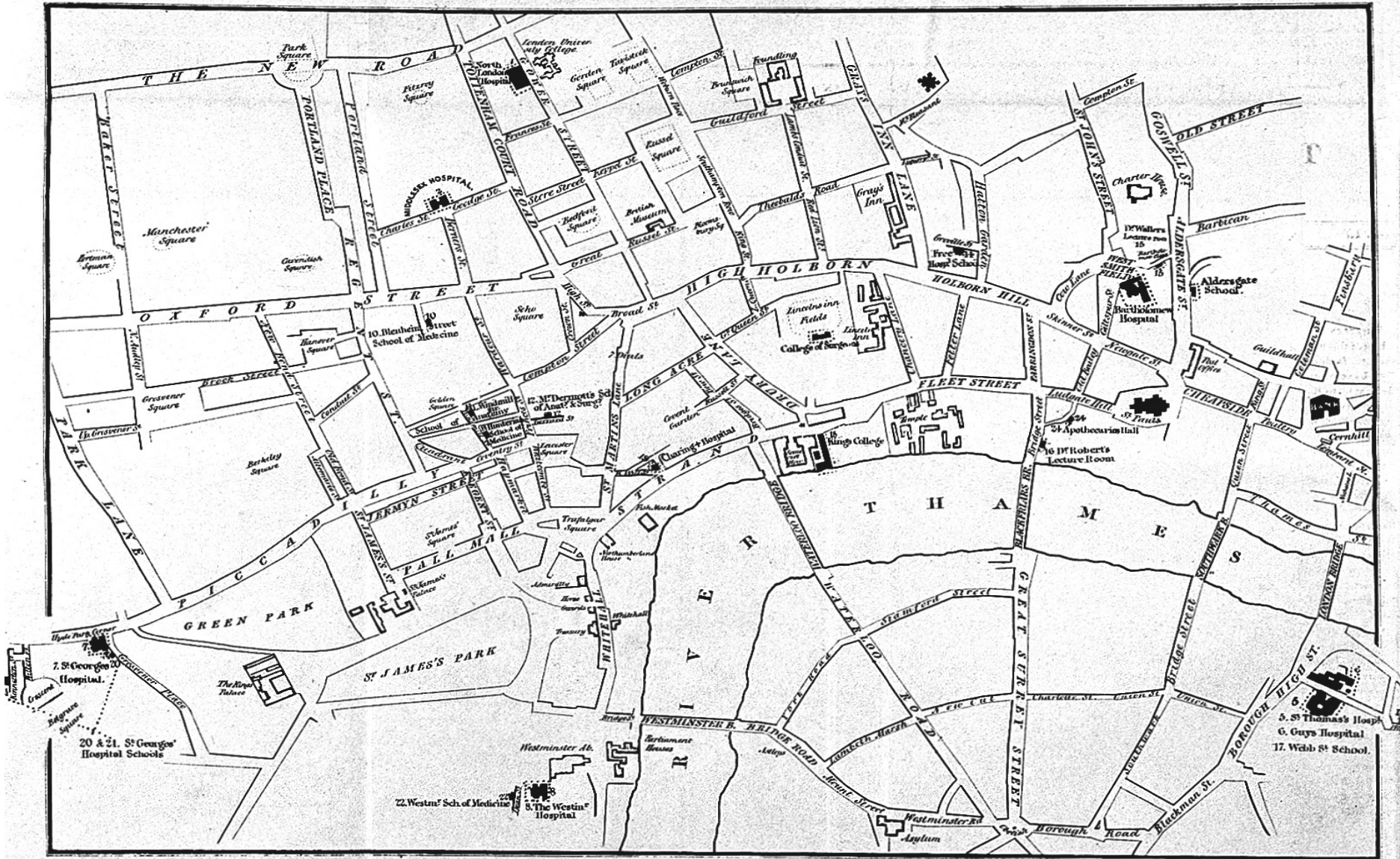
Page 285: **Illustration 2. The Paris Faculty of Medicine and the Parisian hospitals, 1855.**

Source: H. Meding, *Bibliothèque du Paris médical, enseignement et bibliographie de la médecine* (Paris, 1855). © Wellcome Photographic Library (London)

Legend:

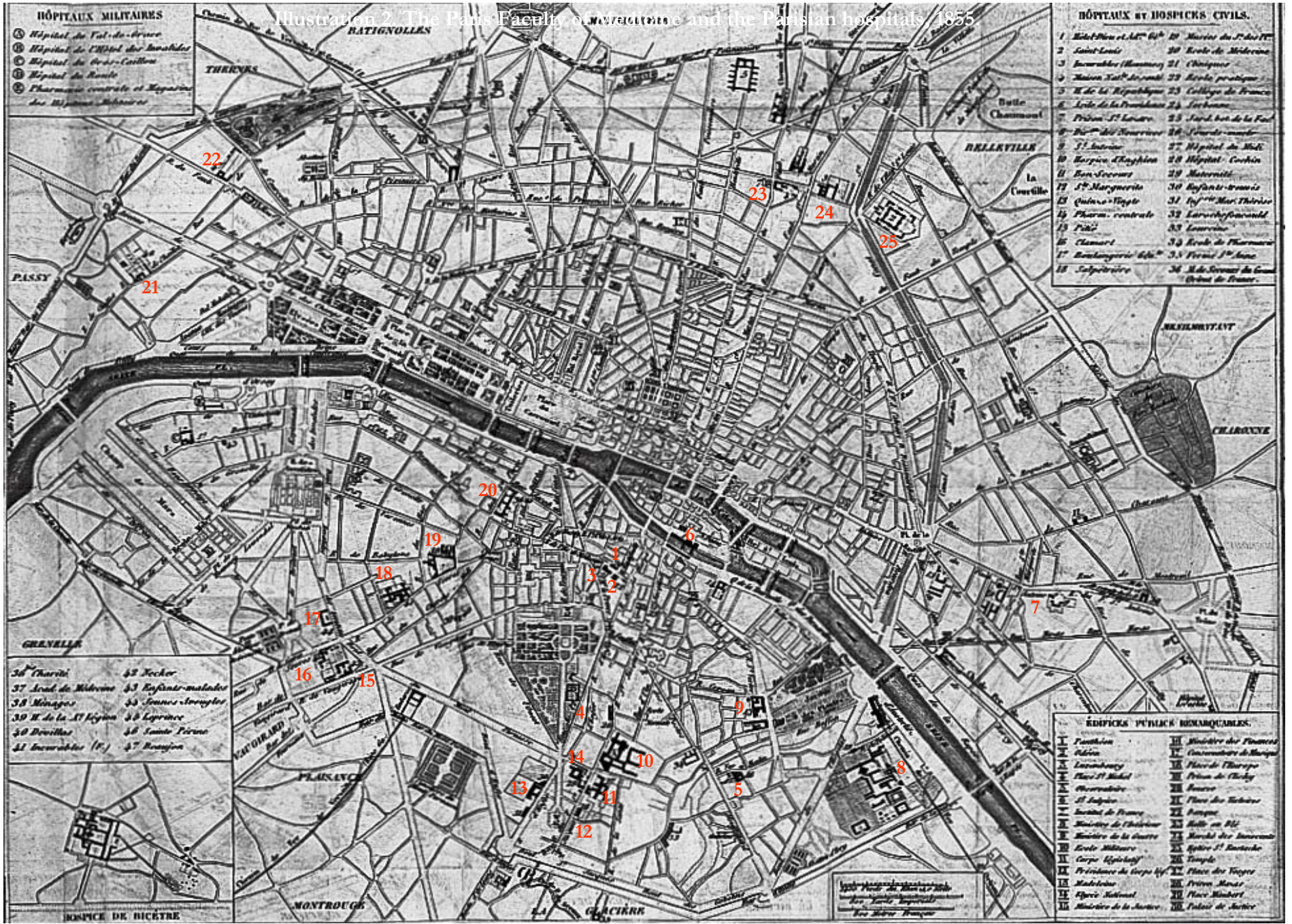
1. Faculté de Médecine
2. École pratique
3. Clinique de la Faculté (midwifery cases)
4. Botanic gardens
5. Clamart dissecting-rooms
6. Hôpital de l'Hôtel-Dieu
7. Hôpital Saint-Antoine
8. Hospice de la Salpêtrière (Mental illnesses)
9. Hôpital de la Pitié
10. Hôpital militaire du Val-de-Grâce
11. Hôpital du Midi (Venereal diseases)
12. Hôpital Cochin
13. Hospice des Enfants-Trouvés (Foundlings)
14. Maternité
15. Hôpital des Enfants-Malades (Hospital for sick children)
16. Hôpital Necker
17. Institution des Jeunes Aveugles (Blind Children Institute)
18. Hospice des Incurables Femmes (Hospice for incurable women)
19. Hospice des Ménages (Hospice for poor old couples)
20. Hôpital de la Charité
21. Hospice de Sainte-Perrine
22. Hôpital Beaujon
23. Maison nationale de Santé (Hospice)
24. Hospice des Incurables Hommes (Hospice for incurable men)
25. Hôpital Saint-Louis

HOSPITALS AND MEDICAL SCHOOLS OF LONDON. 1836-37.



Published with THE LANCET of Sept 24 1836.

Illustration 2. The Paris Faculty of Medicine and the Parisian hospitals, 1855



- HÔPITAUX MILITAIRES**
- ① Hôpital de Val-de-Grâce
 - ② Hôpital de l'Hôtel des Invalides
 - ③ Hôpital du Gros-Caillou
 - ④ Hôpital de la Roche
 - ⑤ Pharmacie centrale et Magasin des Hôpitaux Militaires

- HÔPITAUX ET HOSPICES CIVILS.**
- | | |
|---------------------------|----------------------------------|
| 1 Hôtel-Dieu et St. Louis | 19 Hôpital de la Pitié |
| 2 Saint-Louis | 20 Hôpital de Méricourt |
| 3 Bicêtre (Monsieur) | 21 Clinique |
| 4 Maison St. Germain | 22 Ecole pratique |
| 5 H. de la République | 23 Collège de France |
| 6 Ecole de la Trinité | 24 La Charité |
| 7 Prison St. Lazare | 25 Jardin bot. de la Fac. |
| 8 H. des Bonnes | 26 Cour des Miracles |
| 9 St. Antoine | 27 Hôpital de St. Louis |
| 10 Hospice d'Enfants | 28 Hôpital Cochin |
| 11 Bon-Secours | 29 Maternité |
| 12 St. Marguerite | 30 Hôpital de la Charité |
| 13 Quinze-Vingts | 31 H. St. Marie-Thérèse |
| 14 Pharm. centrale | 32 Larochefoucauld |
| 15 Pitié | 33 Lauroy |
| 16 Clamart | 34 Ecole de Pharmacie |
| 17 Bouteillerie St. Louis | 35 H. de la Pitié |
| 18 Salpêtrière | 36 H. de St. Louis et de la Fac. |

- 36 Charité 43 Necker
 37 Acad. de Médecine 44 Enfants-malades
 38 Ménéges 45 Jeunes aveugles
 39 H. de la St. Foy 46 Leprieux
 40 Drouot 47 Sainte Pétrine
 41 Bicêtre (N.) 48 Beaujon

- EDIFICES PUBLICS REMARQUABLES.**
- | | |
|-----------------------------|----------------------------|
| 1 Panthéon | 11 Ministère des Finances |
| 2 Palais | 12 Gouvernement de Hongrie |
| 3 Louvre | 13 Place de l'Europe |
| 4 Place St. Michel | 14 Prison de St. Denis |
| 5 Observatoire | 15 Bourse |
| 6 St. Julien | 16 Place des Victoires |
| 7 Institut de France | 17 Banque |
| 8 Ministère de l'Intérieur | 18 Hôtel de Clugny |
| 9 Ministère de la Guerre | 19 Marché des Innocents |
| 10 Ecole Militaire | 20 Opéra St. Antoine |
| 11 Corps législatif | 21 Temple |
| 12 Présidence du Corps lég. | 22 Place des Vosges |
| 13 Madeleine | 23 Prison Mazas |
| 14 Opéra National | 24 Place Vendôme |
| 15 Ministère de la Justice | 25 Palais de Justice |

Échelle de 1:50,000
 Les noms des rues et des places sont indiqués en lettres minuscules.



Illustration 3. Interior of a dissecting room with cadavers laid out on tables

Photoprint, s.l.; s.n. © Wellcome Photographic Library (London)

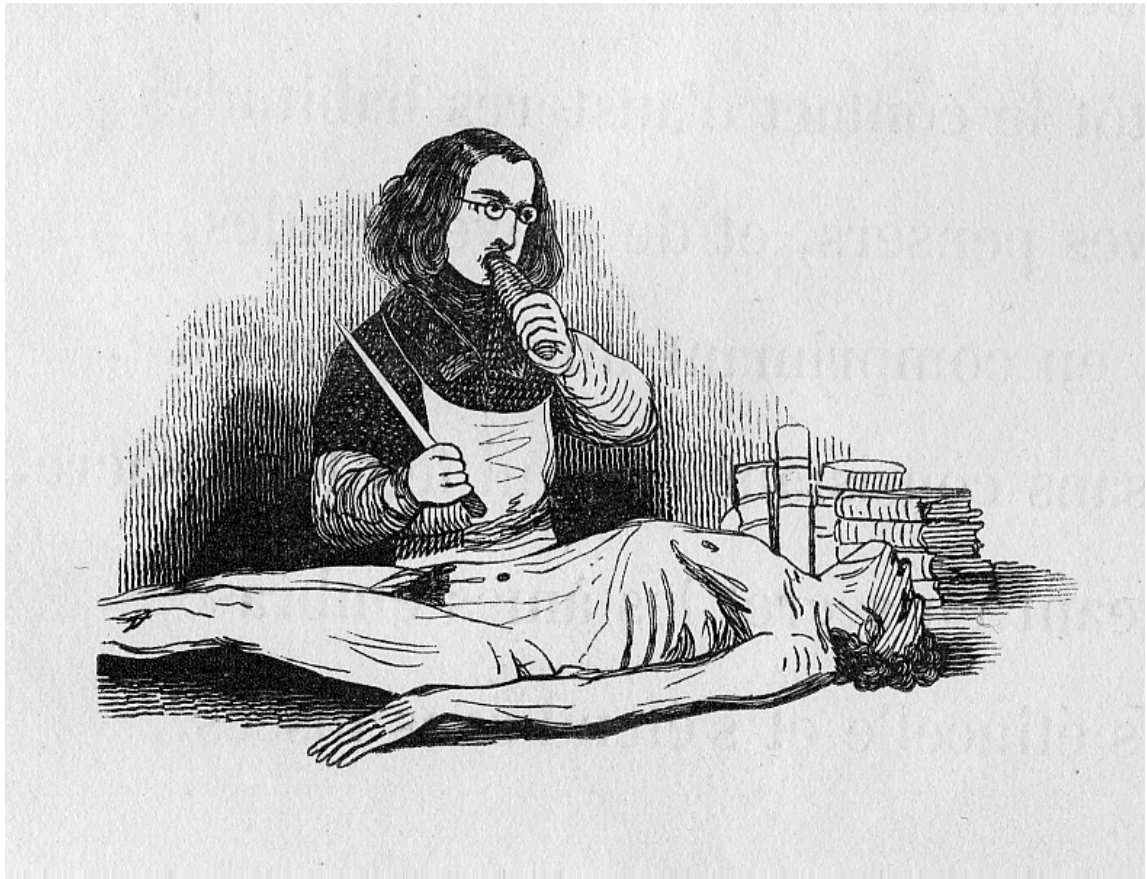


Illustration 4. A medical student inhales from a bottle before opening a corpse

Source: F.A.H. Fabre, *Némésis médicale et orfilaïde illustrées* (Paris, 1840). Cliché BIUM.



Illustration 5. Anatomist performing a post-mortem operation on a woman

Drawing by Paul Rouard, late 19th - early 20th century. © Wellcome Photographic Library (London)



Illustration 6. A group of doctors and medical students surround a dying patient
'When once the short lived mortal dies a night eternal seals his eyes (Addison)'

Watercolour painting; artist unknown. © Wellcome Photographic Library (London)



Illustration 7. A sick man lies in bed, having his pulse taken by a physician while a group of students surround him.

Pen and ink drawing by Jean-Henri Marlet. © Wellcome Photographic Library (London)

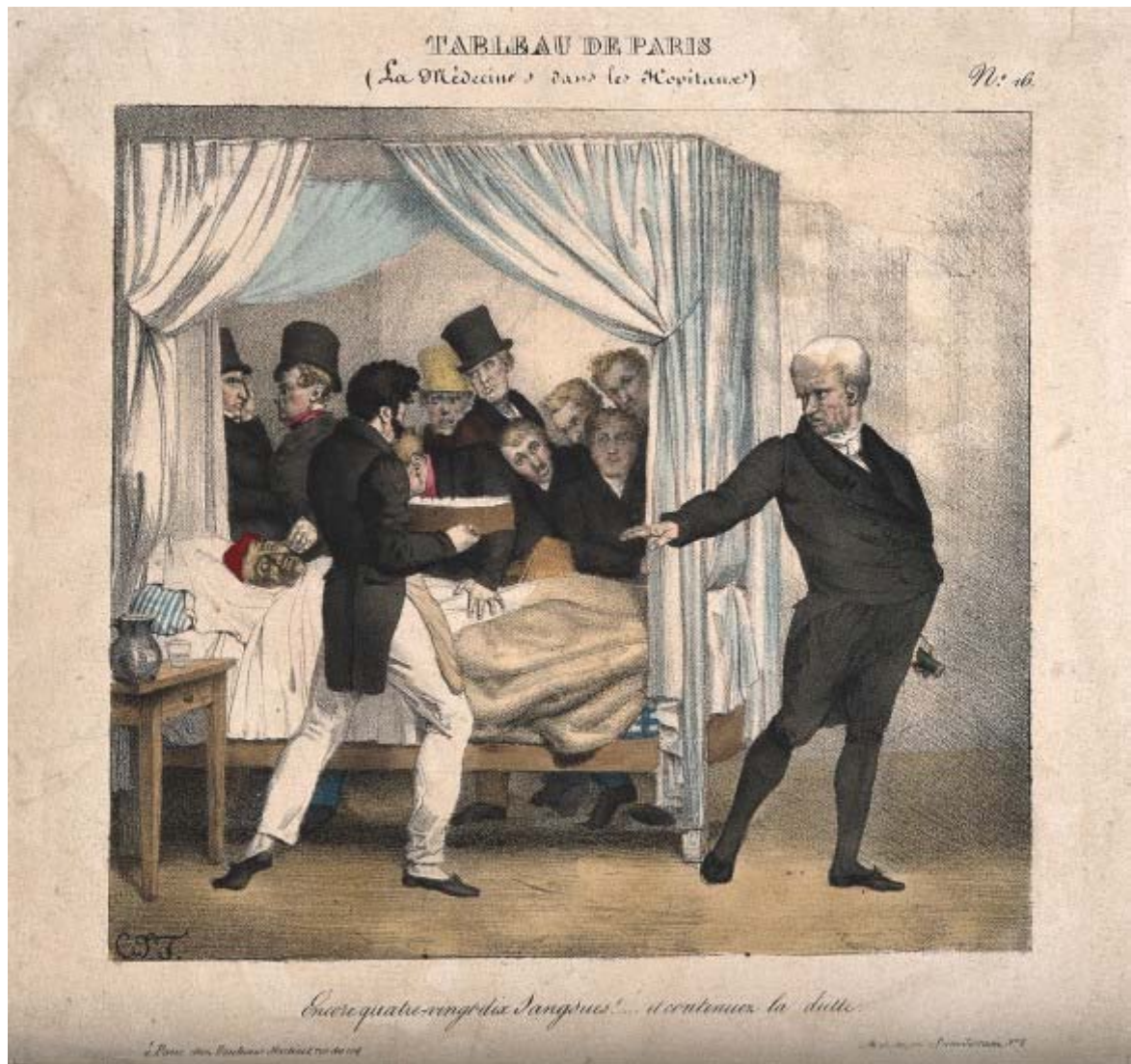


Illustration 8. A doctor prescribes another 90 leeches for a sick bed-bound man while students crowd around the bed

‘Another 90 leeches! And continue the diet’

Coloured lithograph by C. J. Traviès, circa 1827. © Wellcome Photographic Library (London)



Illustration 9. The former Women Surgical Theatre of St Thomas's Hospital (built in 1822)

Located at 9a St. Thomas's St, London SE1 9RY. © Florent Palluault



Illustration 10. Birds dressed as surgeons and cooks dissect a body.
'Metamorphoses of the day. Do you wish to have lunch with us, Mother Pilon?'

Pen drawing attributed to J. Grandville, 1829. © Wellcome Photographic Library (London)



**Illustration 11. A parrot repeating his lessons to donkeys
A medical student takes his examinations in front of his professors**

Source: Fabre, *Némésis médicale*. Cliché BIUM.

The following illustrations demonstrate the vision of medical students offered by mid-nineteenth-century caricaturists. The three English examples (12-14) clearly emphasised idleness. Medical students were not represented studying; instead, the objects they used in their studies (skulls, anatomy manuals) only served as identification tools for the readers. All the symbols employed by caricaturists to qualify their dress (fashionable outfit, hat cocked to one side, short walking stick), attitude (hands deep in the pockets, drinking from a tankard of beer, smoking) and actions (courting a seamstress) implied dissolute behaviour. By comparison, Gavarni's drawings (16-19) gave a more balanced outlook: Gavarni did not represent medical students drinking or smoking, and although he often painted them in the company of *grisettes*, he sometimes showed them giving precedence to their studies over their mistress (16).

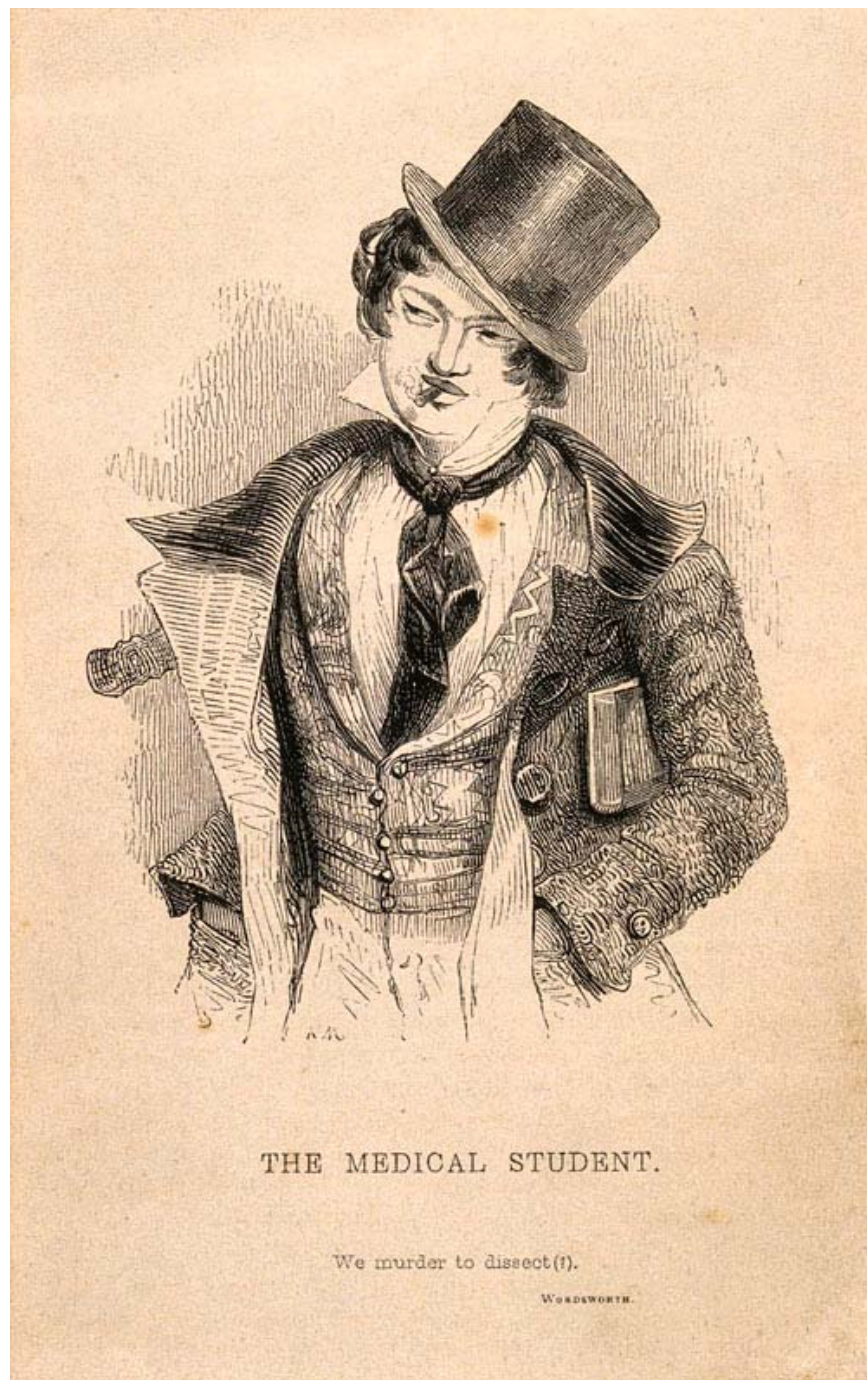


Illustration 12. A medical student smoking a cigarette – ‘We murder to dissect’

Wood engraving by J. Orrin Smith after J. Kenny Meadows. Source: J. Kenny Meadows, *Heads of the people; or portraits of the English* (London: 1840). © Wellcome Photographic Library (London)



Illustration 13. A foppish medical student smoking a cigarette with a tankard on top of his medical books, denoting a cavalier attitude.

Lithography, 1854. Author unknown. © Wellcome Photographic Library (London)



THE MEDICAL STUDENT.

Son of the scalpel ! from whatever class
 You grind instruction just enough to pass—
 St. George's, Guy's, North London, or King's College,—
 Thirsting alike for half-and-half and knowledge
 Thou who must know so well, (all jibes apart,)
 The true internal structure of the heart—
 This heart—which you "a hollow muscle" call,
 I offer thee—aorta, valves, and all.

Though to cheap hats and boots thy funds incline,
 And light rough Chesterfields at one pound nine ;
 Though on the virtues of all plants thou'rt dumb,
 Save the *Nicotiana Tabacum*,
 (*Pentandria Digynia* !—Lindley—mum !)

Though thou eschew'st the hospital's dull gloom,
 Except to chat in the house-surgeon's room,
 And practically practise, in addition,
 The "Physiology of Deglutition."
 Yet much I love thee, and devoutly swear,
 With lips that move controll'd by "the fifth pair,"
 That I will ne'er know peace until our hands
 Shall form a "ganglion" with Hymen's bands.

Then haste, my love, and let me call thee mine,
 Precious and dear as sulphate of quinine,
 Sparkling and bright as antimonial wine,
 Sharp as the angles of a new trephine,
 My reckless, noisy, fearnought VALENTINE !

Illustration 14. A seamstress being courted by a medical student

Source: *Punch, or the National Charivari* (1842), ii, 71. © British Library (London)

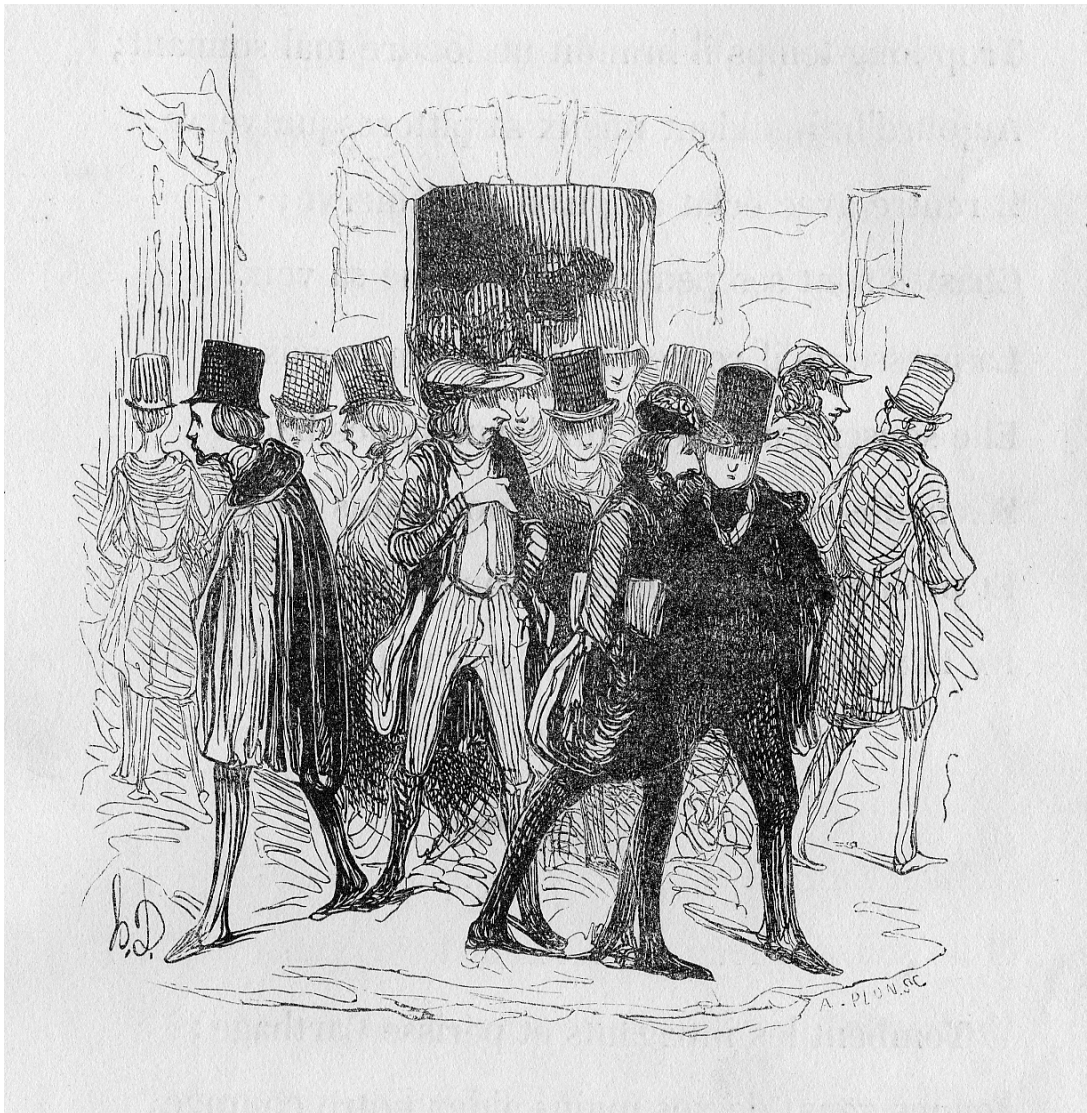


Illustration 15. Medical students leaving after a lesson

Source: Fabre, *Némésis médicale*. Cliché BIUM.

*Some come to the lecture room for a walk, Some come just to laugh and talk
Some come the time to spend, Some come to meet a friend
Some come for observation, Some come for speculation
Some come to learn the professor's theme, Some come to gain his esteem
Some come the worth of their money to earn, Some come to study and learn¹*

¹ W. D. Postell, 'F.B. Coleman, a Medical Student of the 1830's', *Bulletin of the History of Medicine* 18 (1945), 183. Coleman wrote this poem on the first page of his notebook.



Illustration 16. A medical student being scolded by his mistress

_ Auguste, you have been promising me that cape for eight months, it's not nice! You don't have the money! You don't have the money! You needed to buy another corpse, didn't you! You are so selfish!

Source: Gavarni, *Œuvres choisies, revues, corrigées et nouvellement classées par l'auteur. Étude de mœurs contemporaines. Le carnaval à Paris - Paris le matin - Les étudiants de Paris* (Paris, 1847). Cliché Bibliothèque nationale de France (Paris).



Illustration 17. A medical student introducing his mistress to his ‘cousin’

- _ What is this disgraceful little beast here?
- _ This is a cousin of mine, Nini, let me introduce you...

Source: Gavarni, *Œuvres choisies*. Cliché Bibliothèque nationale de France (Paris).



Illustration 18. A medical student showing his skeleton to his mistress

_ You don't recognise her, Eugénie, Badinguet's former lover? A beautiful blond... who loved meringues so much and always took on airs... Yes, Badinguet had her wired up for 36 Francs...

_ You're not saying!

_ No, come on! It's a drummer from the Garde Nationale... silly! Can't you see it's a man?

Source: Gavarni, *Œuvres choisies*. Cliché Bibliothèque nationale de France (Paris).



Illustration 19. A medical student and a law student contemplating their future

_ Eh, dear boy, don't complain! You will be a medical practitioner, I will be a King's prosecutor: when you will be obliged to have talent, I will be forced to have morals. That's what will be tough!

Source: Gavarni, *Œuvres choisies*. Cliché Bibliothèque nationale de France (Paris).

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ABSTRACT I

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Medical students in England and France, 1815-1858. A comparative study

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At the beginning of the nineteenth century, both the English and French medical professions and their respective educational systems presented striking differences. The centralised and rationalised French structure contrasted greatly with the laissez-faire educational market where English students trained and obtained their qualification.

In England, the profession's division into three branches (physic, surgery and pharmacy) was more ideal than real and the great majority of medical men practised all disciplines as surgeon-apothecaries, while only a small number of pure surgeons and physicians restricted themselves to a single discipline. The three London corporations (Royal College of Physicians, Royal College of Surgeons and Society of Apothecaries), which controlled the profession, were unable to agree on a reform which would recognise the rise of general practitioners. The resulting compromise, the 1815 Apothecaries' Act, did little more than imposing a legal qualification upon non-university graduates wishing to practise medicine. In London, several private and hospital schools, which had grown independently from the corporations, provided medical and surgical instruction to prospective surgeons, apothecaries and physicians alike.

In France, professional structure had been quite similar to that of England during the eighteenth century, although the progress of surgery and medicine allowed the two disciplines to draw closer to each other. However, between 1791 and 1803, the structure of the medical profession and education underwent vital transformations. The corporations were abolished, along with the former teaching bodies (*facultés de médecine* and *collèges de chirurgie*), and the state took

charge of instructing the medical elite by establishing three *écoles de santé* which formally unified medicine and surgery. Newly-created municipal institutions provided instruction to the more modest students. In 1803, this dual system was reinforced by the re-institution of the degrees of *Docteur en médecine* and *Docteur en chirurgie*, awarded by the *écoles de santé* (renamed *facultés de médecine* in 1808), and the creation of the *officier de santé* diploma which recognised the right of young men with limited medical educations to practise.

The motives which incited young men and their families to select medicine in the first half of the nineteenth century owed more to what they expected from its practice than to the discipline's inherent advantages. Some young men chose the profession to serve the community in a socially respected position, others to rise to a higher social class, while others simply wished to perpetuate family tradition.

The selection of a particular degree or diploma was dictated less by what students sought than by personal and financial circumstances which defined the scope of future ambitions. Only a small number of well-educated young men could satisfy the educational system's requirements in order to gain access to the professional elite. This category of ambitious students remained small owing to the demanding nature of medical practice and the unattractive income it provided. Medicine rarely appealed to the most wealthy young men, who found in law an occupation more suited to their tastes and interests. Instead, most medical students hailed from middle-class families who could afford the education necessary to undertake medical studies and could entertain reasonable hopes of success.

Each diploma or degree required specific preliminary studies: good classical knowledge for French and English university students, a more limited secondary schooling for most prospective *officiers de santé*, and a mandatory apprenticeship for future surgeon-apothecaries. However, no type of preliminary instruction prepared students well for medical studies. Apart from apprentices, who sacrificed a stronger general knowledge to a more practical instruction, young

men only had a vague idea of the nature and difficulty of the practice and study of medicine. Unless they accompanied a practitioner on his visits and studied relevant books prior to beginning their course, they were unable to take full advantage of the training delivered in the medical schools.

Once at the medical school, young students found a confusing array of disciplines and courses, which the advice delivered by professors on the opening day did not always clarify. Although London professors showed concern for the unguided novices, they paid greater attention to their behaviour and its consequences for the reputation of the profession. In Paris, meanwhile, professors were less sensitive to the students' confusion, probably confident that the curriculum sufficiently defined what was expected from them.

Students had to adapt to their new environment and acquire the clinical detachment necessary to attend anatomical demonstrations and hospital rounds with an emotional distance conducive to learning. They also discovered the various requirements they would have to satisfy before taking their qualifying examination. These requirements suited the goals of the licensing institutions and degree-granting authorities which established them. Whereas each English corporation logically insisted on the subjects at the heart of its discipline, and the English universities concentrated on the medical domain, the French government required *docteurs*—and to a lesser degree *officiers de santé*—to master the whole spectrum of subjects relating to medicine, surgery and public health.

The greater regulation of French medical education translated into a high number of hours attending courses, for both the *doctorat* and the *officiat*. By contrast, the requirements established by the English institutions were the minimum basis upon which students were encouraged to build a personalised education. However, these minimal requirements also enabled idle students to obtain a qualification with limited knowledge. The same liberty appeared in the loose curriculum gradually set up by the English corporations and universities, contrasting with the

precise, thorough and rigorous programme of studies prescribed as early as 1794 by the Paris Faculty. The greater control of medical instruction in Paris also involved intermediary examinations from 1829, a system which the University of London adopted for the MB degree in 1836, while the College of Surgeons and the Society of Apothecaries only set up final examinations, leading some students to cram during the last months of their training.

In both France and England, pupils acquired an extensive array of information and experience through theoretical courses, practical anatomy and clinical training, an undertaking which would have been daunting enough if medical schools offered an instruction adapted to their needs; however, in both capitals, each department of instruction failed to completely fulfil its purpose. Before mid-century, courses often lacked practical features and illustrations. In London, clinical training was generally deficient, with hurried rounds and few clinical lessons, while practical anatomy suffered from a chronic shortage of bodies which the 1832 Anatomy Act did not entirely remedy. The Paris Faculty, meanwhile, failed to fulfil its high ambition of providing a thorough medical instruction. Although students were expected to undertake extensive clinical training, the crowded Faculty wards offered little practical experience, leaving pupils to resort to the teaching available at other hospitals. Moreover, the comparatively good body supply often led to incomplete and careless dissections.

The minority of students who were able to secure junior hospital positions (surgeons' apprentices, physician pupils, dressers and clerks in London and *externes* and *internes* in Paris) benefited from a much better education than their peers. These hospital functions provided them with practical experience caring for patients and established a familiarity with hospital staff which was useful for future advancement. In Paris, these positions were awarded through competitive examinations which selected the elite of students on meritocratic grounds—despite the persistent influence of patronage. In London, access to most of these positions was determined only by money until the 1840s when proficiency became a decisive factor (although

competitions were not introduced systematically). Unlike this elite, the majority of students were unable to obtain real practical clinical experience until a mandatory *stage* was introduced in the curriculum in 1843 in France and in the late 1860s in England.

The quality of French and English medical education was also influenced by the emphasis placed on certain aspects of instruction. In Paris, the government required students to undertake a thorough training with a strong leaning towards anatomical and clinical investigation, in a global aim to discover more about disease and improve health nationwide. In London, the shorter curriculum established by the corporations sought to provide future general practitioners with all the necessary means to care for their patients, emphasising therapy and the pharmaceutical disciplines instead of medical science.

The defects of instruction logically translated into complaints and demands for improvement from students and reformers. In London student recriminations frequently appeared in the medical press, effectively stimulating competition between schools. In Paris, however, pupils faced two monolithic institutions (the Faculty and the General Council of Hospitals) which were less likely to answer their wishes.

The most ambitious students felt the need to remedy the defects of the educational system, and to seek an instruction suited to their personal aims. While most simply followed the prescribed curriculum and possibly complemented it with optional courses, some took a more active approach and used every opportunity afforded to them to shape their own training. In London, these striving pupils undertook further studies in addition to the usual requirements and attended courses in various institutions. Meanwhile, some Parisian students deserted the mandatory official courses and replaced them with private lessons at the *École pratique* and the hospitals, or by book-study at home. Unlike more established professors, whose theoretical lessons remained ill-adapted to pupils' expectations, private teachers provided personalised and practical tuition.

To complement the education provided by professors, ambitious students also acquired knowledge and experience through study groups, contributions to learned societies and solitary study in libraries and museums.

The public perception of medical students as rowdy, badly behaved and disrespectful of social rules was based both on the actual conduct of a minority and on the supposed behaviour of medical students as a whole inside dissecting-rooms. The socialisation and *esprit de corps* of medical students was constructed mainly during dissections where a familiarity with death radically set them apart from the rest of society. In England, the wide condemnation of medical students' behaviour was also reinforced by the reformers' wishes to raise the status of general practitioners by modelling student conduct on the gentlemanly example of university graduates. While a few London students endeavoured to correct this public perception and defend medical pupils, Parisian students tended to see their unruly conduct as typical of the energy of youth and relished, to some degree, in a rebellious image which highlighted their political engagement. By obtaining their university degree, they also proved that bad behaviour was only temporary and did not threaten the status of *docteurs*, who remained above the less well-educated *officiers*.

Wealthy and more modest parents alike, to control their son's expenses and limit the risks of dissipation, only granted them a small monthly allowance. Students would scrimp and save to have a rare taste of the high life, and spendthrift behaviour was therefore more occasional than regular. They divided their free time between useful occupations advocated by their professors and more attractive pleasures such as the theatre, cafés and taverns, where they liked to socialise. They also fulfilled social obligations to relatives and acquaintances who could help them meet influential families and build up a network of useful contacts. These periods of respite from study were greatly necessary. A heavy course load and the gloomy atmosphere of their working environment sometimes caused those students who did not allow themselves any leisure to fall into depression and ill-health.

In Paris, most of the lodgings available to students were inexpensive hotel rooms which provided much more freedom and flexibility than the boarding-houses where many London students lived. Nevertheless, several English reformers called for the adoption of a collegiate system in the London medical schools. However, it was only partially introduced at King's College and St Bartholomew's Hospital. In France, similar calls for a collegiate system to house all Parisian medical students were voiced in vain.

English and French students differed greatly in their relationship to society at large. Greater liberty permitted Parisian students to establish and maintain close relationships with women (many openly lived with a mistress), get involved into politics and display a strong anti-clericalism. By contrast, English students limited their relationships with women to casual encounters, were not encouraged by the political context to display their ideas in noisy demonstrations, and tended to respect religion much more than their French counterparts.

Qualifying examinations often incompletely assessed students' proficiency, remaining undemanding and purely theoretical. Practical examinations were only introduced in the 1830s in Paris and were not employed by the English licensing bodies until after the 1858 Medical Act. Furthermore, the absence of intermediary appraisals meant that English students neglected their ongoing preparation and often resorted to grinders before taking the examination.

The number of students who failed to complete their studies was probably due more to the defects of their education, which did not provide them with enough incentive or coercion to work steadily, than to the difficulties of examinations. In England, the absence of a pre-selection process—except at the University of London—also explains the great proportion of students who failed to qualify.

The close link between student hospital positions (*externat* and *internat*) and the recruitment of elite French practitioners enabled ambitious pupils to use their academic achievements to strengthen their career expectations. By comparison, English organisation presented a more

socially rigid structure where medical students had fewer opportunities to revise their professional options.

Most young men settled as general practitioners while those who wished to become hospital consultants and teachers undertook additional preparation and sought to distinguish themselves through prizes, publications, or specialisation. Englishmen also chose to further their studies abroad so as to differentiate themselves from their peers.

Whatever the degree obtained, settling in practice often represented a risky undertaking for young medical men who did not have the opportunity to join an established practice as partner. Patience and perseverance were essential to gain the confidence of the clientele. But confidence in one's own abilities, built upon all these years of instruction, was an asset which the most dedicated of these young practitioners were happy to possess when called to attend their first patients.

Abraham Flexner's judgment on the similarity between English and French schools was valid only for the second half of the nineteenth century.¹ Like Thomas Bonner, I have argued, on the contrary, that institutional peculiarities profoundly affected the way medical instruction was delivered on both sides of the Channel.² By focusing specifically on France and England, this study has enriched Bonner's more wide-ranging contribution by quantifying and qualifying the institutional differences between French and English medical education to show that the French government's and the English corporations' roles in defining medical instruction in their respective countries underlined different paradigms of education.

¹ A. Flexner, *Medical Education: A Comparative Study* (New York, 1925), 27, 30.

² T. N. Bonner, *Becoming a Physician. Medical Education in Britain, France, Germany, and the United States, 1750-1945* (Oxford, 1995), 132, 145.

ABSTRACT II

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Medical students in England and France, 1815-1858. A comparative study

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The comparative analysis of English and French medical students in the first half of the nineteenth century reveals a unified France where the previous century's regional and professional specificities gave way to a rational approach to medical education, and a pragmatic England where laissez-faire ideology allowed the various actors involved in medical instruction to shape education according to their interests.

In France, the state fused the profession and established a strict hierarchy between Faculty graduates (*docteurs*), and *officiers de santé* whose shorter period of instruction was provided by *écoles secondaires de médecine*. In England, the profession's division into three branches (physic, surgery and pharmacy) was more ideal than real. A more striking distinction appeared between a double elite of physicians and pure surgeons, and a great majority of general practitioners who undertook a more limited education combining apprenticeship, and theoretical and practical courses. Medical schools developed independently from the state and from the corporations who granted the right to practise, and formed a market in which students freely attended the required courses.

Beyond necessary similarities in the content of instruction, the curriculum prescribed by the French government encouraged students towards anatomo-clinical science while the English licensing authorities emphasised practice and therapeutics. Although students were expected to conform to the curriculum, they found opportunities to stray from it to shape their training.

Despite a stricter organisation of studies, French students endeavoured, like their English counterparts, to match their education with their ambitions and remedy the defects of regular instruction.

During the period, social perception of students improved noticeably. Their reputation as unruly drunkards and accomplices of body-snatchers gradually gave way in the 1860s to the more positive image of young men dedicated to science and patients' health.