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Author(s): James L. Axtell

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Education and Status in Stuart England: The London Physician

JAMES L. AXTELL

SEVENTEENTH-CENTURY ENGLAND was a "one-class society," characterized by a tiny minority of men—at best four or five percent of the population—who "owned most of the wealth, wielded the power and made all the decisions, political, economic and social for the national whole." (1) Admission to this charmed circle was open to those who could "live without manual labour" and could "bear the port, charge and countenance of a gentleman." This included not only those of noble blood and ancient riches, but "who-soever studieth the laws of this realm, who so abideth in the university giving his mind to his books, or professeth physic and the liberal sciences." (2) The physician, as a student of the liberal sciences and a member of an ancient and venerable profession, was accorded gentle status, unlike the great majority of gentlemen, because of his intellectual qualifications, his mastery of the art and science of healing the sick—and much else. If we would begin to understand this somewhat unusual relationship between education and social status, a question that still engages the sociologist and historian of modern society, the practitioners of London, especially the fellows, candidates, and licentiates of the Royal College of Physicians, provide a valuable focus, for it was from these men that the most fruitful medical advances of the century came and it was they who served as models for the physicians of the English towns and countryside for many years to come.

Until the sixteenth century the medical profession of England had no organization, but because of its close associations with the Church, which stood at the apex of society, its members were assured a substantial place in the social hierarchy. In 1518, however,

Mr. Axtell is Associate Professor of History at Yale University.

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Thomas Linacre and a group of five physicians petitioned King Henry VIII on behalf of the physicians of London that they might be incorporated as a college. Their petition was granted and the Royal College of Physicians drew its first breath. England now had a professional association which could grant licenses to the qualified and punish malpractice and unqualified practitioners, and also provide an important social and intellectual focus for the members of the profession. Since membership was limited, a high value was placed on those few favored with it. Through his possession of a specialized competence the physician rendered a service to the community for which he was compensated by fees and social standing. (3) And his associations with his fellow members, in regular meetings, at special feasts, lectures, and celebrations, and in consultations over their aristocratic clientele and patrons, created an *esprit*, a sense of corporate fealty, which reinforced the bonds of belonging to the same noble and ancient profession. There has always been something special about being a physician; the F.R.C.P. after his name now assured the English physician of added importance.

Though membership in the College of Physicians conferred considerable respect and honor upon the physician, social success and a large practice depended upon other factors as well, many of them simply intellectual. In addition there were three grades of membership in the College which determined to a great degree where the physician started his climb toward the top of his profession and of the social order in general. The most prestigious position was a full fellowship, of which there were only forty at the Restoration and eighty in 1687. Again supply and demand placed a high social value upon the fortunate few. One rung lower were twelve candidates, fully qualified graduates of the English medical faculties who were eligible to become fellows after four years of practice or upon the death or retirement of an incumbent. In an organization where experience, wisdom, and therefore age were requisites for qualification, the candidate usually did not have long to wait to assume the full honors of fellowship. Sir William Petty, in an unpublished essay entitled "Observations upon Physicians," was prompted to ask himself "whether there bee more above 70 yeares old amongst them [the members of the Royal College of Physicians], than in the like number of any other Society." (4) The last London practitioners

who were associated with the College were the licentiates. These men were either medical doctors from an approved university or somehow qualified in other respects to apply themselves safely and honestly to the practice of medicine. Some were surgeons, some were foreign doctors who had not been incorporated at Oxford or Cambridge, and some had attained only the Bachelor of Medicine degree (which did, however, confer the right to practice). Although they were not legally full members of the College, being only *permissi* required to obtain the license of the College before tacking their brass plates to their doors, those who satisfied the restrictive qualifications of birth (English), education (English), religion (Anglican), and type of practice (general) could obtain candidature with the suffrage of twenty fellows and the payment of a substantial fee.

But membership in the College of Physicians, though in some ways a sinecure, only followed upon the fulfillment of a rigorous set of intellectual and professional qualifications. The first and most important was the academic qualification of becoming a Doctor of Medicine, which, like today, consumed not only many years but many pounds sterling as well. To some men this long educational process could not begin soon enough. Sir William Petty, a European- and largely self-educated physician and Professor of Anatomy at Oxford, wrote "A Short Way to Medicine" in which he jotted down his thoughts on the elementary education of a future physician. (5)

When a youth of good understanding and good sight, that can reade his mother tongue, comes to ten years old, let him learne to write and draw some arithmetic and grosse geometry, and the use of the globes; as also to understand the Lattine and French tongues.

He then urged that the student learn the names and uses of some four hundred plants, "the anatomy of Man, of a dog, of a cock and hen, a salmon, eele, lobster, and oyster (but not by bookes but *per autopsium*)," several basic chemical and pharmaceutical operations, the outward symptoms of diseases and common ailments, and "bandages, incisions, trepans, amputations, lithotomy, cauteries, phlebotomy, cupping, [and] leeches." Petty's recommendations reflect one, and to many the best, way to train a physician: the age-old practice of apprenticing a promising boy to a medical practitioner.

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"Physick," Thomas Sydenham reportedly said, "is not to be learned by going to the Universities," but rather by being apprenticed to an able doctor; "one had as good send a man to Oxford to learn shoemaking as practising physick." (6) The leading English proponent of the clinical method might be expected to disparage the value of the backward medical curricula of his day, but others who advocated the apprenticeship system did not proceed so far in their logic. Apprenticeship could either replace or follow a university education, which to a man the Royal Collegians felt necessary for a fully qualified physician. Christopher Merrett, in a book of 1669 defending the physician's supreme position in the medical hierarchy from the brazen, uneducated, and indeed unethical encroachments of the apothecaries, described the "old way of educating young men into the practice of Physick," which followed a more formal education: (7)

The Senior *Physician* carried his Son, or such as he intended to succeed him in his practice, along with him when he visited his Patients, discovering, and discoursing with them the disease, cause, method of cure, and what remedies were fit to be applied to the present case, and to try them what they would do in the like Case. And when his occasions would not permit him to visit himself, he then sent one of his Scholars to inform him of the condition of the sick person, and the effect of his Medicines; and also when the said Scholars had leisure, they were employ'd to help to gather, prepare, and make, or oversee the compounding of Medicines. And such Scholars they call'd *fili Artis*, sons of Art. Some of the Professors in Foreign parts practise the most of this to this very day with such as travel thither, confirming their reading with experience.

Since the College favored graduates of the English universities, many men acquired their entire medical education in England. But because an English M.D. required according to the statutes a total of fourteen years (Cambridge dispensed with the B.A., lowering the total to eleven years), several candidates for the degree shouldered the extra financial burden of traveling to Europe, where the degree could be obtained more quickly and where it had the decided merit of having been earned under the aegis of a superior medical faculty. Of 255 fellows and candidates of the College for whom the College historian William Munk has information from 1632 to 1688, 136, or a little more than half, received their M.D. from Oxford (58) or Cambridge (78). (8) Fifty were graduates of Padua, the leading

medical faculty in Europe in the seventeenth century, and thirty-six of Leyden, fast becoming the best. Dr. John Raach, in his study of English country physicians (1603-1643), has found that of 246 practitioners who had received an M.D. degree, only 75 had received it from a European university, though at least 137 had matriculated in and attended some classes at some fifteen continental universities. (9) The reason for this much smaller proportion of European graduates among country physicians will become apparent when we consider the social origins of their London colleagues.

The education required of an able Stuart physician was thought to encompass far more than anatomies, chemical experiments, and bandages. In the largest sense it was a "generous Education in all kinds of Learning, for improving the Mind and Understanding, and enabling of it to exercise such a piercing Judgment and large Comprehension of so subtle and numerous natures and things whereof is requisite to the Art of Physick." (10) The obvious first step, then, was to continue his grammar school training in the literature of ancient Greece and Rome during his first years at the university, "to render him Master of the Knowledge contained in Books written in those Languages." This meant, of course, the ability to read and write Latin with ease, for the very compelling reason that the vast majority of books required for his education were written in that language. (11) It meant also a reading familiarity with Greek and perhaps Arabic as well. In 1646 Thomas Browne advised a friend's son about to study medicine of "the great use of the Greek tongue in Physic; without it," he said, "nothing can be done to perfection." (12) And Jean Gailhard, a well-traveled, widely experienced tutor to young English gentlemen, did not hesitate to add Arabic, the language of the transmitters of the Greek heritage of science, medicine, and philosophy to the Latin West. (13)

With these languages at his command the medical student completed his three years for a B.A. and four more for an M.A. in the pursuit of the "Arts, some whereof minister Advantages to the understanding of the nature and causes of things; all do improve the Mind and Understanding, by Exercise at least, to discern and judge of things." (14) At the completion of this liberal arts course, consisting normally of logic, grammar, rhetoric, mathematics, astronomy, music, and moral, natural, and metaphysical philosophy, he

would begin his actual scientific training toward an M.B. and the coveted M.D., a total of another seven years.

Unfortunately, throughout most of the seventeenth century the medical curriculum of Oxford and Cambridge was one of the most conservative in Europe because it remained, in the face of the clinical advances of Sydenham, the physiological breakthrough of Harvey, and the solid achievements of Lower, Willis, and the iatrochemical physicians, primarily a literary study of medicine. (15) Galen and Hippocrates were the main fare of the curriculum; they were served up to the students in a variety of ways: first, in a steady diet of lectures by the Regius Professor of Physic; then, in seven years of reading and academic exercises; finally, the candidate himself was obliged to prepare and serve six one-hour lectures on Galen. But in the end it was disappointingly obvious that no matter what form it took, it was always the same dish.

In the second half of the eighteenth century a lively pamphlet war erupted which rivaled in its virulence the apothecary-physician skirmish of the previous century. The real issue of this conflict, which pitted the competent, largely middle-class licentiates of the College against the monopolizing upper-class fellowship, was "whether the education of a gentleman was necessary to a physician, or merely ornamental." (16) The fellows, defending the leisurely status quo, reiterated the importance of a "generous Education in all kinds of Learning" in much the same way they had defended it a hundred years before. Dr. Thomas Withers, physician to the York County Hospital and a spokesman for the College fellows, wrote: (17)

The character of a physician ought to be that of a gentleman, which cannot be maintained with dignity but by a man of literature. . . . If a gentleman, engaged in the practice of physic, be destitute of that degree of preliminary and ornamental learning, which is requisite . . . , if he do speak on any subject either of history or philosophy [and] is immediately out of his depth, . . . [he] is a real discredit to the profession.

The licentiates' rebuttal cut to the heart of the English universities' inadequacy over the past century and a half. Oxford and Cambridge, they accused, have "no patients, no clinical Lectures, which are the *sine qua non* of a medical Education." "The great object of [the physician's] investigations . . . , disease in its various forms, is rarely

to be met with in secluded colleges." (18) Even when Oxford and Cambridge did introduce anatomy into the medical curriculum, its effects were nullified because the students merely watched a surgeon perform the dissection while the Reader commented *ex cathedra* on the performance from above. Furthermore the statutes requiring attendance at dissections were often neglected by teacher and students alike. (19) Added to the fact that only five Oxford and even fewer Cambridge colleges awarded medical fellowships, which were necessary to maintain the doctoral candidate through so many years of study, these curricular inadequacies made medicine the real foster child of the higher university faculties.

The costs of this dubious medical education were high. As John Eachard, master of Catharine Hall, Cambridge, observed, "Very few determine themselves to the profession of law, or physic, without the consideration of some estate, upon which they foresee they may be probably maintained, until they gain skill enough, and reasonable confidence, to profess what they design." (20) Even the most hurried glance at the social origins of the 270-odd fellows and candidates of the College of Physicians from 1632 to 1688—for only perhaps half of whom Munk gives information—indicates that over fifty were the sons of gentlemen (many the younger sons), twenty of clergymen, and twenty-two of medical practitioners. (21) It was an unusual student who could support himself for fourteen years of study. In 1697 Dr. Thomas Brown estimated that a doctor's education cost £1000, a surgeon's £120 or more, and an apothecary's only £50 or more. (22) Foreign study might considerably raise that figure. Even the cost of procuring the earned degree, Claver Morris found, could flatten one's purse with ease. University fees (£56.12s.2d.), gratuities to various officials and servants, presents of gloves, sweetmeats, wine, and good food, and a gown and doctor's cap came to a total of £89.7s.2d. (23) The continental universities seem to have offered other benefits besides a shorter period of study under superior faculties. John Ward, a clergyman thinking of obtaining an M.D., reported that "Mr. Burnet had a letter out of the Low Countries of the charge of a doctor's degree, which is at Leyden about sixteen pounds, besides feasting the professors; at Angers, in France, not above nine pounds, and feasting not necessary neither." (24) It is understandable that many English students, find-

ing their patrimonies dwindling after six or seven years at the university and no medical competence as yet to show for it, moved to foreign shores to acquire that competence with more dispatch.

Nor did the expenses cease at the student's exit from the university. The cost of the move into a London practice was also high. If the physician was fortunate enough to establish himself without getting involved in a profit-sharing scheme with one of the popular apothecaries who controlled most of the patients of London, there were still the expenses attendant upon "his Library, Habit, his more free way of living in a suitable house, Attendants, greater Taxes, &c." (25) Being a gentleman by education, by profession, and usually by birth as well, the new physician had to dress, live, and act like a gentleman, whether riding in his coach-and-four, visiting upper-crust patients, or attending the Comitia of the College or the Opera at Covent Garden. Another expense was the admission fee to the College. Under the statutes of 1647 licentiates had to pay £6 for the first year and £2 for each succeeding year as long as they remained in practice. In 1702, James Yonge, a successful and skilled surgeon from Plymouth, came to London and was proposed by Dr. Walter Charlton and President Sir Thomas Millington as an Extra-licentiate of the College. When he protested that he already had a bishop's license to practice and that he was "too old to be catechized," they said that "as to the catechizing, they knew I could do that well enough, but however, for the sake of my modesty, the questions should be plain and the cost should be the lowest that ever was paid." (26) He got off for no less than £11.15s.6d.

Candidates paid £4 for the first year and £2 for each of their other three; both groups paid a total of £1.11s.8d. to the various officers of the College and for the privilege of having their names inscribed in the College annals. Graduates of foreign universities seeking a license to practice who had not been incorporated at Oxford or Cambridge were required to pay double. (27)

After many years in a secluded university, the new physician has arrived in London. He establishes himself—at great expense—in practice and begins a daily routine which combines in varying proportions work and leisure. With the passage of years his practice fills out as do his coffers, and his reputation as a healer begins to grow. But what is his intellectual status in the capital city of

England? What do we know about the intellectual capacities and interests of its medical men? The answer to this question will help to define, perhaps more accurately than anything else, the physician's place in the intellectual life of England when it was at its zenith.

The most noticeable indication of intellectual distinction is, of course, the doctor's title. In the seventeenth century this connoted a long university education accompanied by the respect naturally accorded one so high in the scale of the learned. "Doctor," originally the medieval Latin designation for a scholar's qualification to teach (*docere*), soon became the appellation for the recipients of the highest degree in every branch of the liberal arts and professions. By the seventeenth century it had become fairly restricted to Doctors of Divinity and, especially, of Medicine. As the London physicians were eager to point out, even the apothecaries who demeaned all university education by stepping into medical practice on their own annexed to themselves the sobriquet "Doctor" because they knew the prestige that it carried and the respect that would accrue to its possessor. (28)

But there was another mark that separated the usurping apothecary or quack from the true doctor, one which was only too obvious to the discerning ear: the use of Latin. The apothecary might have attended grammar school where he was given an introduction—but only that—to Latin grammar and perhaps a few morsels of literature; at any rate he had dipped far enough into Lily's grammar to interlace his bedside and shop talk with enough Latin to fool his poorer customers into thinking him a truly learned healer. As Christopher Merrett protested, they tried to "out-beard" the physicians. (29)

But the physician's beard would not pull off; his learning and his Latin were deeply rooted. Latin was his second tongue, which, if he could not write or speak it elegantly (as even Harvey, who published all his works in Latin, could not), he could read, write, and speak well enough to understand any Latin books, letters from abroad, or continental visitors unable to speak English. (30) All through the seventeenth century Latin remained the *lingua franca* of educated Europe. When Edward Browne, the future President of the College of Physicians and the eldest son of the learned Sir Thomas, traveled through Europe, his father urged him to speak Latin with the learned

whom he met, and when he returned to his London practice to read and write as much Latin as he could find time for. (31) Many of physician John Locke's final library of 3,641 books, 402 of which were medical, were published in English (39.2 percent); but Latin books, which included most of the medical and scientific literature, followed close behind at 36.5 percent—1,326 books. (32)

Through an extensive education based upon the classics, medical and literary, the physician enjoyed a superiority over his rival apothecaries in the understanding and use of Latin, an advantage which served a double purpose in his fight to prohibit the unqualified from practicing medicine. The most obvious use was that it allowed him to learn the business of his profession in depth and to keep abreast of the latest advances made in it, all of which benefited his patients. But another use for this knowledge of Latin was to reinforce the mystique of the profession, to amplify the mysterious overtones of this closed brotherhood of the gown. Latin separated the gentle-born healer from the ordinary blue-aproned shopkeeper; his use of it in bedside conversation and in the hieroglyphical scribblings of his prescriptions appeared to the patient as part of the arcana of this select caste, an impression the physician sought to maintain. The fury unleashed upon any "foul-mouth'd impudent scribler" who happened to translate the sacred Latin texts into English—as Nicholas Culpepper translated the College *Pharmacopoeia* in 1649—was tremendous. (33) The 1647 *Statuta Moralia* of the College laid it down that the examinations for admission were to continue to be in Latin, as was all bedside conversation between physicians; the offender was liable to a fine of 10s. for "revealing [a] secret of any importance" and 5s. for "bad manners at consultation," which probably included unprofessional lapses into the vernacular. (34) And in 1652 it was decided that for the future the Gulstonian lectures on morbid anatomy and pathology should be given in Latin, perhaps, as Sir George Clark suggests, to veil their purport from surgeons, apothecaries, or other unlearned interlopers. (35)

This conscious effort to enshroud the physician's activities in the secrecy and mystery of Latin are perhaps best illustrated by Dr. Everard Maynwaring, who published in 1668 an English book entitled *Medicus Absolutus. The Compleat Physitian*. Maynwaring, who usually played the gadfly to his more conservative colleagues,

addressed an English preface to the reader, but in the dedicatory epistle to his fellow members of the medical profession he switched to Latin. Throughout his easy prose exposure of the "Counterfeit" physicians of London he sprinkled the inevitable Latin phrases and quotations, taking care, however, to paraphrase or translate each of them for his undiscerning reader. It is small wonder that in the eighteenth century, when a democratic spirit began to rise among the College licentiates and the apothecaries were winning the legal right to practice on their own, the Latin monopoly of the physicians was not frontally attacked with boldness but neatly side-stepped and charged with irrelevance to the practitioner's business. "I believe that a Man who can read no Language but *English*," contended a spokesman for the New Apothecary, "may make as good and serviceable a *Physician* in *England*, as he who has all the learned ones at his Tongue's End." (36) Nothing wounds quite like wholesale dismissal.

In the seventeenth century the English physician was known for his sensitive control of the Latin tongue and was respected for his wide acquaintance with the classics—and for much else. What those other areas of competence were, an intelligent Londoner could learn from at least three sources: the periodical press, the coffeehouse, and the bookshop. If he devoted a part of his day to perusing the columns of the *London Gazette* or even John Houghton's *Collection for the Improvement of Husbandry and Trade*—and in particular the advertisement columns—he could not fail to be impressed by the frequency with which physicians appeared in print. One valuable service that Houghton, a fellow of the Royal Society, provided for his reading public at the end of the century was to publish periodically a directory of the fellows and licentiates of the College of Physicians with the addresses where they might be consulted. Eventually this list was expanded to include surgeons and those country physicians who desired the publicity. Later, when advertisements swelled the paper to four sides of which they consumed half, a wide variety of medical notices could be found weekly. The ubiquitous Houghton himself was usually the middleman in these early versions of the modern "want ad," when he wrote:

If any Apothecary's widow that keeps a Shop in the Country wants a Journey-Man that has lived 25 Years for himself in *London*, and has had the

Conversation of the eminent Physicians of the Colledge, I can help to such one. (37)

References such as these to "the eminent Physicians of the Colledge" were not large ones, tucked away in small print as they were, but cumulatively they kept before the city and country reader the image of a medical association—the only one in England—which prided itself on quality, eminence, and professional acumen.

The *London Gazette* frequently ran another type of advertisement:

Dr. Connor, of the College of Physicians, and Royal Society, will begin in St. Martin's Library, on Monday the 8th of February next [1697] at 3 a Clock, his Cymical and Anatomical Experiments, to confirm the natural Accounts he has given in both the Universities, and in this Town, of the Structure and Functions of the Human Body. . . . (38)

Again the result was that the College and the intellectual interests of its members were kept before the public eye. Reviews of the books written by physicians against the apothecaries occur throughout the issues of *The Works of the Learned*, but seldom does an advocate for the New Practice have his word. (39) Perhaps by definition an apothecary's thoughts could not appear among the works of the learned. This editorial policy could not but help the physician's cause and enhance his reputation.

The best indication, however, that the periodical press gave of the extramedical competence of the London physicians was conveyed through the announcements of library sales. On January 18, 1695, John Houghton announced the forthcoming sale of the library of Sir Charles Scarborough, F.R.C.P., which, it was said, contained books in French, Italian, Latin, English, and Greek in the subjects of history, philosophy, the Greek fathers, oratory, poetry, and mathematics as well as medicine. The particular value of this collection was acknowledged by the editor less than two months later when he referred to a new sale of a "Curious Collection of Greek Books, equal to those of Sir Charles Scarborough." (40) John Evelyn, however, thought its value lay elsewhere. On March 10, 1695, he "dined at the Earle of Sunderland, with my Lord Spencer . . . ; my Lord shewed me his incomparable Library now againe improved by many books bought at the sale of Sir Charl Scarbrs, which was the very best collection especialy of Mathematical books that was I believe in all Europe:

once designed for the Kings library of St. James but the Queene dying (who was the great patronesse of that design &c.) it was let fall. . . ." (41) The young Oxford physician whom William Harvey, himself "pretty well versed in the Mathematiques," persuaded to "leave off [his] gunning" during the Civil War and take up medical practice was obviously well known for his abilities in learned subjects other than medicine. (42)

An even more extraordinary library than Scarburgh's was announced for sale in September 1698 in the pages of the *London Gazette*, that of Dr. Francis Bernard, F.R.C.P., said to contain fifteen thousand books in "most Faculties and Languages." The sale catalogue alone for this library filled 450 pages, and it contained—contrary to the advertisements—nearly *fifty* thousand volumes of the "best Theological, Historical, Philological, Medicinal and Mathematical Authors in the Greek, Latin, Italian, Spanish, French, German, Dutch and English tongues." Dr. Bernard was an ordinary physician in everything but his learning; though a fellow of the College under the Charter of 1687, he held no offices and besides his residency at St. Bartholomew's Hospital made no sound in the medical world. There was no doubt in anyone's mind, however, that he was one of the most learned men of his day, "being naturally one of the most communicative men living both of his knowledge and of his books." (43) Examples such as these, occurring frequently in the journals and newspapers of the day, reinforced the layman's opinion of the physician's intellectual eminence and impressive range.

Admittedly this was second-hand knowledge of the physician. If an enquiring Londoner wanted a personal view of the learned physicians of his city he often had to walk no farther than the nearest coffeehouse, where in the morning several physicians came to wait upon patients, give advice, and hold consultations with colleagues, and in the afternoon and evening mingled with the learned of every discipline to talk of the latest bestsellers in religion, law, politics, or belles lettres. (44) Especially after the Wednesday afternoon meetings of the Royal Society he was likely to find a group of physicians at Pontack's or Garraway's, as James Yonge, the Plymouth surgeon, found them upon his visit to London in 1702. After being invited to join the Society by "the secretary, Dr. Hook, my old friend," Dr. Edward Tyson, and Mr. Houghton, the newspaper-

man, "the next Wednesday I dined with them at Pontacks, when there were in all 16, several of them knights, doctors, &c. . . . We went thence to the meetings, and there I modestly accepted the fellowship they offered, and I was then minuted down against next day of court and election. This time I saw the famous Mr. Evlyn among them, also Captain Hals the great astronomer, [and] Dr. Woodward the great mathematician, Author of [*An Essay towards a Natural History of the Earth*, 1696]." (45)

Yonge did not encounter an inordinate number of physicians by accident, for from its very inception in postwar Oxford the Royal Society was sustained by a hard core of physicians and surgeons who always comprised well more than a majority of those scientifically productive fellows responsible for keeping it alive during its critical years from 1672 to 1703. (46) Of the twenty-five most active leaders of cooperative science in England before the Restoration, ten (40 percent) were medical doctors; and of the thirty-seven initial participants in the founding meeting of November 1660, fifteen (40 percent). (47) In 1671, just as the lack of enthusiasm, participation, and financial support of the large corps of nonscientific dilettantes (75 percent of the whole) who had inflated the early membership lists began to swell in a disheartening crescendo, the energetic medical fellows comprised 66 percent of the remaining quarter of the scientific membership. (48) It was these natural philosophers, accustomed to working with their hands and eyes as well as with books and receptive to the sceptical, probing spirit of the new science (*nullius in verba*), who contributed the majority of valuable papers to the *Philosophical Transactions*, performed the majority of experiments at the weekly meetings, paid their dues faithfully, and most importantly lent their whole-hearted physical and intellectual support to its philosophy and its institutional embodiment in Gresham College. To the discerning Londoner the founding of the Royal Society was the most significant intellectual development in the seventeenth century; he could not fail to be impressed by the paramount role of his physicians in its creation and fruition.

Perhaps the best place to search for an indication of the Stuart physician's intellectual standing would be the crowded bookshops of St. Paul's Churchyard or the Strand. There we would certainly be drawn to the outstanding medical works of Harvey, Lower,

Sydenham, Willis, and Glisson, which helped to place England at the forefront of European science in the seventeenth century, but these would be substantially and perhaps surprisingly outnumbered by a host of nonmedical works in many fields. We would find the critical *Introduction to the Old English History* (1684) of Robert Brady, "a principal agent in bringing English historical method out of its medieval and into its modern period"; (49) Walter Charlton's penetrating *Darkness of Atheism* (1652) and *Immortality of the Human Soul* (1657), giving the lie to those who thought that "the general scandall of [the medical] profession" was its irreligion; (50) Sir William Petty's *Political Arithmetick* (1650), the progenitor of modern statistical demography; Sir Richard Blackmore's best-selling poem *Creation* (1712) and *Satyr against Wit* (1700); Sir Thomas Browne's *Religio Medici* (1642) and *Pseudodoxia Epidemica* (1646), classics of Jacobean thought and prose; and John Locke's *Essay concerning Human Understanding* (1690) and *Some Thoughts concerning Education* (1693), both very obviously the products of a physician's patient scrutiny and perceptive observation.

The list is endless and for a good reason. The physician, by virtue of his education, leisure, and intellectual propensity, was in a position to exercise considerable effort and leadership in the upper-class literary world of which he was already a member socially. Most chose to do so. Of the sixty-four fellows of the College of Physicians from 1603 to 1625 for whom there is any record, twenty-seven had extra-medical pursuits and publications of a strictly scientific nature, while only nine had only medical publications to their credit. But thirty-two fellows had prominent nonscientific interests, including logic, music, languages, theology, and education. (51) These are the men who represent a large portion of the seventeenth-century entries in Dr. Thomas K. Monro's *The Physician As Man of Letters, Science and Action* (2nd ed., 1951), over fifty-three for the whole of England and at least twenty-five of London practice or reputation. The cumulative effect of this achievement was to impress the contemporary Englishman with the amazing intellectual virtuosity of the physician and to confirm in his estimation his claim to gentle status.

For some physicians these impressive intellectual qualities led to knighthood, for others to a royal physicianship or the mastership of a university college. But for many others they were only the

armaments which brought about quieter, but equally worthy, victories in the scientific and intellectual revolution which raged throughout the century. In the war upon the unknown and error it is this insatiable, disinterested desire for knowledge that is the primary and independent motive, one that many physicians possessed in large measure in the seventeenth century. Without their support, that revolution might have shrunk to an insignificant skirmish in a world marked by famous wars on other fronts.

Notes

1. Peter Laslett, *The World We Have Lost* (London: Methuen, 1965), p. 26.
2. William Harrison, *Description of Britain*, in Raphael Holinshed, *Chronicles of England* (London, 1577), quoted in Laslett, *op. cit.*, p. 38.
3. A. M. Carr-Saunders and P. A. Wilson, *The Professions* (Oxford: Clarendon Press, 1933), pp. 284-87.
4. Marquis of Lansdowne, *The Petty Papers* (London: Constable, 1927), II, 169.
5. *Ibid.*, II, 168-69.
6. *Diary of the Rev. John Ward* [1648-79], ed. Charles Severn (London, 1839), p. 242.
7. Christopher Merrett, *A Short View of the Frauds, and Abuses Committed by Apothecaries* (London, 1669), p. 51.
8. William Munk, *The Roll of the Royal College of Physicians of London* (London: Royal College of Physicians, 1878), I, 205-479. Mark Curtis has shown that 37 percent of the fellows admitted between 1559 and 1642 had received their medical education abroad. *Oxford and Cambridge in Transition, 1558-1642* (Oxford: Oxford University Press, 1959), p. 154.
9. John H. Raach, *A Directory of English Country Physicians 1603-1643* (London: Dawsons of Pall Mall, 1962), p. 14.
10. Jonathan Goddard, *A Discourse setting forth the Unhappy Condition of the Practice of Physick in London* (London, 1670; written 1665), p. 12.
11. W. J. Ong, "Latin Language Study as a Renaissance Puberty Rite," *Studies in Philology*, LVI (1959), 103-24.
12. Sir Thomas Browne, letter to Henry Power, in *The Letters of Sir Thomas Browne*, ed. Geoffrey Keynes (London: Faber and Faber, 1946), p. 278.
13. Jean Gailhard, *The Compleat Gentleman* (London, 1678), pp. 38, 41.

14. Jonathan Goddard, *Discourse*, pp. 12-13. Dispensations from the Congregation of Regents could reduce those periods by one or two terms if the student was capable.
15. Mark Curtis, *Oxford and Cambridge in Transition*, p. 153; Phyllis Allen, "Medical Education in 17th-Century England," *Journal of the History of Medicine*, I, 1 (January 1946), 115-43.
16. Bernice Hamilton, "The Medical Professions in the 18th Century," *Economic History Review*, 2nd ser., IV, 2 (1951), 141-69.
17. Thomas Withers, *A Treatise on the Errors and Defects of Medical Education* (York, 1794; written c. 1774), quoted in Bernice Hamilton, "The Medical Professions," p. 147.
18. *Some Animadversions of a Licentiate and The Case of the Licentiates against the College of Physicians*, both quoted in Bernice Hamilton, "The Medical Professions," p. 148.
19. Phyllis Allen, "Medical Education," pp. 119-25; H. M. Sinclair and A. H. T. Robb-Smith, *A Short History of Anatomical Teaching in Oxford* (Oxford: Oxford University Press, 1950), pp. 10-17.
20. John Eachard, *The Grounds and Occasions of the Contempt of the Clergy and Religion Enquired Into* (London, 1670), in *Works* (London, 1774), I, 162. See also Jonathan Goddard, *Discourse*, p. 51, and Christopher Merrett, *A Short View*, p. 41.
21. William Munk, *The Roll of the Royal College*, I, 205-479. Francis Brown warned in *The Case of the College of Physicians* (n.d.) that apothecaries getting into the practice of medicine would "deprive the Gentry of one of the Professions by which their Younger Sons might honourably subsist" (Bernice Hamilton, "The Medical Professions," p. 164). The career of John Bidgood, the son of an Exeter apothecary, is fairly typical of the education, expenses, and social mobility of a seventeenth-century physician. Munk, *The Roll of the Royal College*, I, 348-50.
22. Thomas Brown, *Physic Lies a Bleeding* (London, 1697), p. 23.
23. Claver Morris, *The Diary of a West Country Physician A.D. 1684-1726*, ed. E. Hobhouse (London: Simpkin, Marshall, 1934), 30 June-14 July 1691.
24. *Diary of the Rev. John Ward*, p. 12.
25. Christopher Merrett, *A Short View*, p. 41.
26. *The Journal of James Yonge (1647-1721), Plymouth Surgeon*, ed. F. N. L. Poynter (London: Longmans, Green & Co., 1963), pp. 215-16.
27. Sir George Clark, *A History of the Royal College of Physicians* (Oxford: Oxford University Press, 1965-1966), I, 405-409. This discrimination against the licentiates had surprisingly few repercussions until the eighteenth century, when they rebelled and secured privileges commensurate with the amount of money they were forced to pay.
28. Everard Maynwaring, *Medicus Absolutus. The Compleat Physitian, Qualified and Dignified* (London, 1668), p. 50.

29. Christopher Merrett, *A Short View*, p. 35. Tom Gallypot, one of the practicing apothecaries in Dr. Thomas Brown's *Physic Lies a Bleeding*, exclaimed at a conversational opening, "O that I could think of a short Saying in the Classicks relating to this Matter. I vow 'twas a smart one, I remember it in English," and went on to confuse Tacitus, Suetonius, Horace, and Ovid with each other, admitting that he has "now almost forgot [Latin], except Physick-Latin" (pp. 14-15). See also Robert Pitt, *The Craft and Frauds of Physick Expos'd* (London, 1702), pp. 10-11.
30. Although we should not entirely believe John Aubrey that Harvey "understood Greek and Latin pretty well, but was no critique, and he wrote very bad Latin," it must be remembered that Sir George Ent, M.D., F.R.C.P., translated the *Circulation* and the *Generation of Animals* into readable Latin. On the whole, however, his Latin "was no better and no worse than that of many of his contemporaries." John Aubrey, *Brief Lives*, ed. Andrew Clark (Oxford: Oxford University Press, 1898), I, 301; Gweneth Whitteridge, ed., *The Anatomical Lectures of William Harvey* (Edinburgh: E. & S. Livingstone, 1964), p. xxi.
31. *The Letters of Sir Thomas Browne*, p. 33 (12 August 1668) and p. 79 (21 July 1676).
32. John Harrison and Peter Laslett, *The Library of John Locke* (Oxford: Oxford Bibliographical Society, 1965), p. 19.
33. Jonathan Goddard, *Discourse*, p. 26; Sir George Clark, *A History of the Royal College*, I, 276.
34. Sir George Clark, *A History of the Royal College*, I, 281, 291.
35. Sir George Clark, *Ibid.*, I, 287.
36. *Pharmacopœia Justificati, or Apothecaries Vindicated from the Imputation of Ignorance* (London, 1724), p. 24, quoted in Bernice Hamilton, "The Medical Professions," p. 163.
37. No. 172 (15 November 1695). Another service that Houghton offered was the finding of qualified physicians for towns that had none. No. 254 (11 June 1697); no. 299 (16 April 1698).
38. No. 3256 (24 January 1696-1697).
39. July 1702, pp. 420-24; September 1703, pp. 552-56. The longest review by far that the *Works* printed was a thirty-four-page account of Daniel LeClerc's *Histoire de la Médecine* (Amsterdam, 1701), which ran through August, September, and October.
40. Nos. 129, 136 (8 March 1695). The *London Gazette* (no. 3054) for 14-18 February 1695 also announced the sale.
41. *The Diary of John Evelyn*, ed. E. S. de Beer (Oxford: Oxford University Press, 1955), V, 206.
42. John Aubrey, *Brief Lives*, I, 298-99.
43. From the sale catalogue. W. J. Bishop, "Some Medical Bibliophiles

- and Their Libraries," *Journal of the History of Medicine*, III, 2 (Spring 1948), 251-52.
44. See *The Diary of a West Country Physician*, ch. 2, for the habits of a prominent Wells physician.
 45. *The Journal of James Yonge*, pp. 213-14.
 46. Dorothy Stimson, "The Critical Years of the Royal Society, 1672-1703," *Journal of the History of Medicine*, II, 3 (Summer 1947), 283-98; Sir Henry Lyons, *The Royal Society 1660-1940* (Cambridge: Cambridge University Press, 1944), ch. 3.
 47. Charles Gillispie, "Physick and Philosophy: A Study of the Influence of Gloucester not long since, that hee imagined that physitians, of all Royal Society," *Journal of Modern History*, XIX (1947), 215-17.
 48. Sir Henry Lyons, *The Royal Society*, p. 341.
 49. J. G. A. Pocock, "Robert Brady, 1627-1700. A Cambridge Historian of the Restoration," *Cambridge Historical Journal*, X, 2 (1951), 186-204.
 50. Sir Thomas Browne, *Religio Medici*, ed. Jean-Jacques Denonain (Cambridge: Cambridge University Press, 1955), p. 5. "One told the Bishop of Gloucester not long since, that hee imagined that physitians, of all other men, were the most competent judges of all others in affairs of religion; and his reason was, because they are wholly unconcerned in the matter." *Diary of the Rev. John Ward*, p. 100.
 51. Charles Gillispie, "Physick and Philosophy," p. 213.