

Learning Medieval Medicine: The Boundaries of University Teaching. Introduction

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What was new about teaching medicine in a university context? What distinguished it from the sort of medical education that went before? In the past, historians have treated these questions either as problems of analyzing the contents of university medicine (its texts and doctrines) or as problems of characterizing its method of procedure (scholasticism). The exemplary scholarship that this approach has produced over the years has certainly been of great value in providing the basic facts of early university medicine. We now know the stages by which Greek and Arabic medical sources were translated into Latin and made the object of commentary by Western scholars. We know how masters in twelfth-century Salerno fashioned out of these sources a curriculum of studies that subsequently became the foundation of medical teaching in the new universities. We know where, when and how this medicine became the subject of teaching in the universities of the thirteenth century. We know which texts were taught, who taught them, and what medical doctrines they derived from them. We already know, then, *how* medicine came to be taught as a university discipline.

But does this really explain *why* medicine was institutionalized in the new universities? Does it explain how doctors presented the practical craft of medicine as a learned body of knowledge fit for teaching in the universities, and what the advantages were of doing so? Does it correctly identify what distinguished early university medicine from other forms

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of medical learning? These questions, we believe, have not yet been given satisfactory answers, and so in this volume we address them in some detail. We seek answers in three main areas: the professional benefits of formalized teaching; the mechanisms of classroom practice; and the boundaries of scholastic medicine.

Our answers to these questions offer a fundamentally new perspective on early university medicine because they are based upon a reconceptualization of the problem. Traditionally, early university medicine has been viewed as a thing in itself, a body of knowledge, or a set of abstract principles. It is thus assumed that we can come to know university medicine by analyzing its constituent parts and its procedures. The problem with this approach, however, is that it tends to divorce university medicine from the people who were engaged in it. The essays in this volume, by contrast, are united in the conviction that early university medicine is better understood in terms of the practices that constituted it and gave it meaning for those who embraced it, its scholars, practitioners and clients.

A further consequence of reifying scholastic medicine is the habit of assuming that it must be co-extensive with its institutional structures. In other words, university medicine is usually explained only in terms of what went on within the early universities. But, conceptually speaking, in order to establish the boundaries of university medicine, we must be able to identify that which lies beyond the boundary as well as that which falls within it. Simply put, early university medicine is defined as much by what went on outside the universities as by what went on within. A proper understanding of early university medicine, then, requires an appreciation of its relationship with the broader society of which it was a part. This volume is committed to the view that the boundaries of university medicine should be defined not in absolute terms, but in terms of the internal practices of university life together with what those practices meant for people outside. To this end, our volume combines papers that analyze how medicine was taught within the universities with essays that discuss alternative means of learning medicine that drew upon this scholastic medicine.

Faith Wallis's essay is an ideal starting point for this sort of analysis because it focuses upon a crucial shift in perception of learned medi-

cine that occurred during the 1100s, just before the rise of the universities. At the beginning of the century, learned medicine was still seen as practical. But as the century progressed, it increasingly came to be perceived as an intellectual discipline in its own right. This new perception entailed three specific claims about the nature of medicine. First, it was a uniquely certain type of knowledge derived from principles and demonstrated by reason; second, it was closely related to the branch of philosophy dealing with the fundamental principles of change in the natural world; and third, the contents of medical knowledge was best conveyed by formal instruction based upon texts. One of the most significant consequences of this new view was that the point of medical education was no longer to tell doctors what they should do, but to explain what learned physicians should think and know. Wallis charts this shift in perspective in her analysis of twelfth-century commentaries on the *Urines* of Theophilus, showing how even a highly practical work such as this was gradually integrated within a more theoretical approach to medicine.

Roger French's contribution brings us up to the period when medicine was being institutionalized as a university discipline. He explains how doctors used the new learned medicine discussed in Wallis's chapter to transform themselves from «mercenary treaters of disease» into «speculators on the natural philosophical principles of health and disease». His work expands upon the notion that physicians could strengthen the position of medicine as a learned discipline immeasurably by grounding it in Aristotelian natural philosophy, «even to the extent of eventually overcoming the traditional suspicion of the greedy and less than honest doctor». French is particularly interested in explaining how students of natural philosophy in the arts faculty at Oxford were persuaded to view medicine as a learned discipline worthy of being taught in the universities. Drawing upon mid-thirteenth-century lectures on *De differentia spiritus et anime*, he shows how a distinction was drawn between natural philosophy and medicine in terms of the Aristotelian concepts of subordinating and subordinated disciplines, which provided an intellectual justification for the institutionalization of medicine as a university discipline and for the internal divisions between the faculties of arts and medicine.

French also shows how students in the arts faculties were introduced to a surprisingly large body of medical knowledge through their study of Aristotle's physical works. He reveals that masters of arts, in showing

how medicine was subordinated to natural philosophy, explained many of the fundamental principles of medicine to their students. In doing so, they made numerous references to the basic works of the medical curriculum where the theoretical principles of medicine were clearly laid out. It was timely, then, that students ending their course of studies in the arts faculty were introduced to the texts that commenced the course of studies in medicine. Although medicine was subordinated to natural philosophy, in terms of its subject matter it appeared to be going further, taking up where natural philosophy left off. Thus, a further justification was given for the existence of a separate higher faculty of medicine, where students could pursue the topic after their training in the liberal arts.

Miguel de Asúa's chapter begins our analysis of the internal practices of early university medicine. In essence, his essay is a detailed investigation of French's observation that university masters secured medicine's status as a learned discipline by grounding it in Aristotelian philosophy. Scholasticism was essentially the application of Aristotelian logic to authoritative sources in an attempt to synthesize the sources and resolve their inconsistencies within a coherent picture. By applying this method to ancient medical texts, medical masters in the early universities were fashioning a new science of medicine based upon authority and interpreted by reason. The epistemological foundations of this method were rooted in the notion of authority. De Asúa is interested in explaining how university masters of medicine understood this epistemological conception of authority and how they used it in their teaching.

In one sense, authority was granted to any great writer from antiquity, on the principle that the older a source was and the more renowned its author, then the more authoritative the text must be. But the authoritative sources themselves varied: some were purely philosophical, others were purely medical, and others were medico-philosophical. University masters treated these sources in various ways depending upon their view of the relationship between medicine and philosophy. De Asúa's point is that sources were made authoritative in different ways precisely by the different ways in which they were handled. Taking Peter of Spain's commentary on the *Isagoge* of Johannititus as his example, de Asúa shows how Peter used his philosophical and medico-philosophical sources primarily for

constructing logical arguments, whereas he used his medical sources chiefly as statements of fact. De Asúa suggests that by deploying his philosophical and medico-philosophical authorities in logical arguments, Peter greatly increased the authoritative status of his own expositions. In this case at least, then, it seems that authorities from the past were being invoked in the classroom to give greater authority to the master's own voice.

Fernando Salmón's chapter continues this analysis of classroom practice by investigating the role that masters played in actively constructing an authoritative voice for themselves and their contemporaries. He is particularly concerned to show how authority was translated from the classical sources to the masters themselves when commenting upon a text. Focusing upon university expositions of Galen's *De morbo et accidenti*, Salmón shows how medical masters, by incorporating *dubia* in their commentaries, created opportunities for offering original interpretations of ancient texts. These *dubia* were, in effect, strategies for shifting the focus of the reader's attention away from what the text had to say to what the commentator had to say about the text. They thus created space within which masters could invoke different authorities, both ancient and contemporary. Salmón's analysis of these *dubia* reveals that while earlier medical masters such as Arnald of Vilanova paid close attention to the opinions of classical authorities, from the 1340s onwards, masters such as Gentile da Foligno showed greater interest in the views of contemporaries.

Tiziana Pesenti also focuses on the practice of commenting upon medical texts in the university. Extending the discussion into the second half of the fourteenth century, she demonstrates that university masters continued to write expositions of the basic texts of the curriculum (most notably Galen's *Tegni*, but also Avicenna's *Canon* and the *Articella* too). Her analysis of these sources shows that university masters were not concerned with establishing an authoritative interpretation in all matters. Rather, university commentaries are better regarded as battlefields in which medical masters offered rival novel interpretations of medical doctrine in opposition to the opinions of their contemporaries.

Pesenti's research thus supports the conclusions of de Asúa and Salmón, that university medical masters used their commentaries to

argue with one another over competing interpretations of medical theory. Moreover, Pesenti reveals how masters adopted entrenched positions, and called upon their students as witnesses and supporters of their respective points of view. In doing so, she brings to light the process by which academic trends were established at different centres of medical education. For example, she shows how the interpretation of Galen's latitude of health proposed by Giovanni Santasofia and his younger brother Marsilio in Padua was opposed by a rival interpretation put forward by the masters of Bologna and their followers in Pavia (e.g. Albertino Rinaldi da Salso) and elsewhere (e.g. Piero d'Arrezzo). Here we are brought directly into the cut and thrust of scholastic debate in which the formation of competing schools of thought was encouraged and developed along the lines of institutional affiliation.

Luis García Ballester's chapter moves our discussion of classroom teaching forward chronologically, while also shifting the focus slightly. His analysis of the Medical School at Salamanca in the fifteenth century shows that, despite the particular constraints on intellectual life there, the medical education it offered was fairly typical for European medical faculties at this time. Drawing upon the writings of its masters and students, he concludes that its medical school was more a consumer of medical science than an original producer of new theories. Thus, Salamancon teachers such as Master Alfonsus were primarily concerned with writing works intended as aids for remembering the basics of medical theory.

Ballester's chapter pulls together many of the themes already touched upon in the preceding essays. For example, on the basis of his analysis of a collection of Salamancon medical notes containing a student's recollection of questions and disputations and summaries of medical theories, he concludes that students did take notes during their lectures. In her essay, Tiziana Pesenti points out that commentaries on the *Tegni* were sometimes transmitted in the form of *recollectiones*. In some cases, these *recollectiones* represent a student's version of a text based upon the notes he took in lectures; in other cases, they indicate the redaction of university lectures prepared by a master and then given to his students. In both cases, however, the point was to provide a permanent record of the debates between masters over disputed interpretations of medical

theory. Moreover, Pesenti shows that university masters commented upon the texts of the curriculum more than once. Indeed, on the basis of student *recollectiones*, she reconstructs the annual schedule of lectures on the *Tegni*. She also offers some fascinating insights into the possible audiences for these lectures, ranging from medical students (bachelors and *repetitors*) to professors of medicine, appointed lecturers on the *Tegni* and even the local community of friars.

In her analysis of the Chartres commentary on Theophilus' *Urines*, Faith Wallis explains that the two surviving copies of the commentary bear all the hallmarks of being transcripts by two students of the same professor's lectures. Again, in his examination of the Oxford gloss on Aristotle's *libri naturales*, Roger French argues that the glosses which now survive in annotated copies of Aristotle's natural works are in fact the fair copy of notes taken down by students during lectures. It seems, then, that although oral learning was an important part of the university experience, students did take notes in their lectures from the earliest days of medical teaching.

Ballester's essay also emphasizes the importance of medical schools as places for teaching medicine rather than centres for the production of new medical knowledge. As Faith Wallis's essay shows, this process began when Salernitan masters introduced the notion of collective teaching centred upon a common curriculum known as the *Articella*. Roger French pursues the idea of curriculum development in his discussion of the natural philosophy component of the arts course at Oxford. He points out that masters selected Aristotle's *libri naturales* to form a body of examinable knowledge that served to qualify a student for entry to the masters' consortium. This was the whole point, he explains, for masters agreeing upon which books were to form the basis of the course, what lectures were to be given, and what basic interpretation was to be provided.

Having decided upon the central canon of texts, masters then had to agree upon a common interpretation of these texts. This was given in the common gloss. In noting the similarities between the Chartres, Digby and Bartholomaeus commentaries on Theophilus' *Urines*, Faith Wallis concludes the existence of «foundational glosses». In other words, there existed a common body of glosses on Theophilus upon which

each author built up his own commentary. Roger French also identifies the existence of a common gloss in Oxford for Aristotle's *libri naturales*.

The common gloss contained the *disciplina* of medicine, that is, the correct understanding of ancient knowledge, or the knowledge which masters said their profession was about. But how did masters convey this *disciplina* to their students? The theoretical framework for this was laid out by Haly Ridwan in his commentary on the *Tegni*. Teaching medicine, said Haly, can be regarded as an activity by which the master enriches the soul of his pupil. The master's goal is to project the intentions he has in his own soul into the soul of his pupil. This can happen either when the pupil listens to the words of the master spoken in the classroom, or by reading the master's words in his absence. An essential aspect of university instruction, then, was to teach students how to read texts with such transparent meaning as to make it seem as though the ancients were speaking directly to them.

The point of this sort of commentary was to convey a body of medical knowledge and to demonstrate that the most appropriate method of explaining it was through the practice of teaching it. The authority and expertise with which each master (*magister*) did this was a function of his *magisterium*. Early university medical education, then, was not built upon the idea of individual masters offering personal interpretations of texts. Rather, it was a corporate activity in which the task at hand was to convey the *disciplina* of medicine from one generation to the next through the mechanism of the commentary.

The essays in this volume suggest that there were two levels of medical education in the early universities. At one level, university teaching represented a strategy for conveying a received interpretation of medical knowledge from one generation to the next in the form of the common gloss. At another level, medical teaching in the early universities encouraged the development of rival schools of thought between competing institutions. The first interpretation represents university teaching as a corporate enterprise, conducted at a fairly basic level; the second suggests that teaching was a competitive business based upon novel interpretations put forward by individuals and individual medical schools.

This observation suggests that different schools taught medicine at different levels of competence. Thus, smaller university faculties of

medicine, as well as centres of medical education outside the university system, probably confined their medical teaching to passing on the common gloss on the basic texts of the curriculum. No doubt, the more renowned centres of medical education—Bologna, Padua, Pavia, Montpellier and Paris—also provided the opportunity of acquiring the common gloss. But with their larger, more diverse body of scholars a situation arose that encouraged new developments in medicine, especially the formation of original interpretations. Moreover, the competition between these centres of excellence would have encouraged this competition to form along lines of institutional affiliation.

The essays discussed so far substantiate the point that the early university classroom was a conceptual stage upon which the oral performance of the master brought to life the various voices of the past and present, and guided them in an articulated discourse. Cornelius O'Boyle's chapter shifts the focus of the debate somewhat. Pointing out that discussions of early university education usually centre upon the oral and literary aspects of scholasticism, he argues that gesticulations provided an important means of non-verbal communication in the classroom as well. He demonstrates that a sophisticated system of coded hand signals was employed by scholars to articulate the formal features of argument that constituted university medical education. Using representations of classroom scenes in manuscript illuminations, he shows how masters and students used specific finger, hand and arm movements in their speech to amplify, modify, affirm or subvert their utterances in an integral act of communication. Taking these gesticulations together with the more general bodily gestures depicted in these illustrations—the position of figures, their location, and their relative size—O'Boyle explains how artists and their audiences perceived early university education and the activities associated with the scholarly life. But the gestures characterizing the academic life constituted merely one accepted use of gesticulation in medieval society. Gestures were also used in rhetoric, in social etiquette, and in Christian prayer and preaching. Above all, gestures provided a means of distinguishing different social groups, including the university-educated physician.

O'Boyle's chapter is a convenient point of departure from our analysis of medicine within the universities to a discussion of its relationship

with society at large. Michael McVaugh's essay on learned surgery takes us to the very threshold of university education in its analysis of surgeons' attempts to raise the status of their craft to that of a learned discipline by imitating the form of university medicine. Surgeons sought to convince people that there was an intimate link between the two subjects, at least at a theoretical level. One way they did this was by writing increasingly comprehensive and sophisticated encyclopaedias that served as the basis for a text-based education in surgery. An especially appealing feature of these encyclopaedias was that they drew upon the surgical writings of ancient Greek and Arabic authors, which made them particularly suitable material for scholastic commentary. Moreover, the inclusion of anatomy in these encyclopaedias—which may be connected with the introduction of university dissections at this time—gave surgery the sort of theoretical grounding it had hitherto lacked. This was the sort of theoretical knowledge that seemed to justify teaching surgery in the classroom. Not surprisingly, then, in the early decades of the fourteenth century in universities throughout Western Europe university medical men began to take a keen interest in learned surgery. Presentations of surgery were made before the medical faculty at Paris, and later on, evening classes were arranged by the university's medical masters for the surgeons of the city. In northern Italy, university men began to write commentaries upon the surgical portions of their medical authorities, and eventually professorships in surgery were established in the Italian *studia*, teaching a regular curriculum of surgical texts.

But despite the fact that surgery had acquired many of the *formal* characteristics of a learned discipline, in *practice* the boundaries between medicine and surgery were scrupulously maintained. Within the universities, surgery was always considered to be of an inferior status to medicine; professorships in surgery were rarely regarded in the same light as professorships in medicine; and the surgical teaching that was offered was often little more than a review of the treatments offered by surgeons. In France, the practice of surgery continued to be controlled by guild-like confraternities, and was reinforced by royal and municipal legislation. By and large, then, surgery remained a non-academic discipline, distinguished from medicine by its reputation as a manual craft.

Iona McCleery's chapter on medical education in Portugal before the founding of the University of Lisbon (1290) takes us beyond the

immediate confines of the university and into the broader world of medical learning. In assessing the availability of medical education outside the universities, she raises a number of issues that directly relate to the demand for medical education. For example, what were the opportunities available to students wishing to study medicine in locales distant from university towns? How far were people willing to travel for an education in medicine? And how did the very concept of studying medicine at university suggest itself to people? McCleery's essay provides an example of how even the most scattered records of teachers and places of learning can reveal the existence of centres of medical education outside the universities. From fragmentary documentation, she shows that medical teaching was almost definitely taking place in the Augustinian House of Santa Cruz and at Coimbra Cathedral from as early as the late eleventh century onwards. Moreover, the *Articella* appears to have provided the foundation for this teaching. This sort of medical teaching may have provided the context within which some of Portugal's most noteworthy medical masters—Peter of Spain and Giles of Santarém—first studied medicine.

Monica Green's chapter extends the boundary of medical education even further by investigating the role that learned medical books played in the education of laywomen. Of course, the low levels of literacy among women at this time meant that relatively few women—even female medical practitioners—learnt any medicine directly from texts. This is reflected in the fact that, with the exceptions of Trotula and Hildegard of Bingen, very few women authors of medical texts are known. But one might expect that in convents for religious women, where literacy levels were higher, medical books would have provided a repository of knowledge that would have educated women on how to take care of their own medical needs. Green's exhaustive search of the surviving archives, however, reveals that convents contained hardly any medical books at all. The generally low level of literacy even among religious women may, in part, explain their exclusion from the sophisticated literary world of learned medicine. But whatever the cause, the effect was that the learned medical text served to demarcate the boundary between professional male practitioners on the one hand and women on the other.

This is not to say, however, that university-educated medical men did not reach out to women in terms of their medical needs. Indeed, as Montserrat Cabré i Pairet points out, the writings of university medical authors went a long way in structuring and articulating women's medical needs. Cabré i Pairet is particularly interested in those medical self-help texts known as *regimina sanitatis* (*Regimens of Health*) that deal exclusively with women's needs. The intended audiences for these texts were primarily women from an aristocratic or upper middle class background who were able to read. Cabré i Pairet focuses upon one influential example of this sub-genre, entitled *Trotula*, written in Catalan for a female royal audience by a certain Master Joan some time before the late fourteenth century. Although the text is formally addressed to certain unnamed royal women, in fact the medical advice it offers is directed to women in general. Moreover, the author restricts himself to offering advice, and thus assumes that women are able to take care of their own health needs. Although the first section of the text promises to provide medicine for health and sickness, in fact it concentrates in large part on cosmetics, or as the author says «beautifying women». The three remaining sections briefly discuss problems of the womb and menstrual disorders; how to promote and attain sexual pleasure; and the importance of the six Galenic non-naturals. Cabré i Pairet points out that, although the author recognizes that women take care of their own medical needs, it is the male author who is selecting the medical information they need to do so. This, in effect, defines the limits of women's ability to take care of their own medical needs. The learned male author, then, is actually constructing the notion of «women's health». He is defining what it is in women's health that women themselves are responsible for and—maybe more importantly—what they are not responsible for. In this case, then, the learned medical text serves to displace responsibility in the case of female medical health.

Taken together, these essays reveal that university medicine, while generated and sustained within specific institutional structures, manifested itself in various forms well beyond the confines of the university. In doing so, it dictated the nature of medical learning at all levels of society. It determined where it could be taught (in local schools and even in the home), to whom (by and large men, and not women), and what sort of medical learning was appropriate (e.g. cosmetics for laywomen).

University medicine thus penetrated all levels of society, yet it remained firmly in the control of male university-educated physicians. Taken together, these essays demonstrate that the boundaries of university medicine were certainly flexible and invariably shifting; but they were always the product of negotiation between the parties involved, most notably the master and his student, and the physician and his patient.

ACKNOWLEDGEMENTS

Most of the essays in this volume were originally given as papers at a conference on «Medical Teaching and Classroom Practice», held at King's College, Cambridge, in January 1998. The editors especially wish to thank Peter Murray Jones, fellow and librarian of King's College, for his assistance in organizing this conference and for arranging our stay at the King's Research Centre, which provided us with excellent conference facilities. We also wish to acknowledge the Wellcome Trust and the generous financial assistance it extended to us in the form of a conference grant. Our thanks also go to Tamara Hug who, as secretary of the Wellcome Unit for the History of Medicine in Cambridge, was of assistance at every turn in helping us to organize this conference. In the preparation of this volume, we also wish to express our debt of gratitude to Matilde Pardo of the Unidad de Historia de la Medicina at the University of Cantabria, for secretarial assistance and technical advice on the formatting of the tables.