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978-0-521-10456-2 - The Medical Renaissance of the Sixteenth Century

Edited by A. Wear, R. K. French and I. M. Lonie

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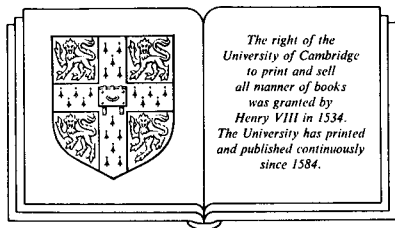
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Introduction

When planning the conference on sixteenth century medicine that took place at Corpus Christi College, Cambridge in September 1983, the organisers did not intend to present a refined version of the usual picture of medicine steered by a number of heroes through a time of change that saw the origins of modern medicine. Rather, the intention was to develop an alternative picture of a less heroic but perhaps more real medicine as it was taught and practised within the context of other features of sixteenth century life. Such medicine is largely a *terra incognita* for the historian-at-large, and the historian of medicine who is familiar with one or two of its aspects – anatomy has received some attention – has made little attempt to compare medicine with other sources of renaissance knowledge, shared by medical men, men of letters, philosophers and often priests.

Nor was the sixteenth century an arbitrary choice. Few would deny that it was a period of radical and rapid change – broadly, the renaissance – and it was hoped that by bringing together a number of historians working in related but distinct fields this change could be related to changes with the theory and practice of medicine and to those within the society in which it was taught.

The links between medicine and the rest of renaissance intellectual life were intimate. Together with theology and law, medicine stood at the top of the university curriculum in the northern universities, requiring as a precondition a full arts education, which included the scientific elements of natural philosophy on which medicine was based. The medical degree was necessary for recognition as a ‘proper’ physician, and nothing served more readily than a lack of it to mark out the uneducated empiric. In the universities of the south – particularly Italy – arts and medicine were read together and were as closely related as in the north.

Medicine was, then, a subject of high academic status. Its teachers often possessed formidable linguistic skills in Greek and Latin together with detailed knowledge of the works of Hippocrates, Galen and the lesser classical (and often medieval and Arabic) authors. There is no reason to suppose that the teachers of medicine were inferior to their colleagues in

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other disciplines in point of scholarship; and in addition they were professional men teaching a vocational subject and combining their learning with actual practice of medicine. It is one of the aims of this book to see how this was done.

Although we can speak of 'renaissance medicine' because it continued to be taught and practised during the period we may wish (for other reasons) to call the renaissance, it is not so easy to describe the essential nature of renaissance medicine. Certainly in the eyes of many people at the time, medicine in the sixteenth century was undergoing changes more rapid than those of earlier centuries, and by and large as historians we can agree with this impression. But these changes occurred late in the period we commonly call the renaissance. Was medicine in some way resistant to changes occurring in other areas? What features did renaissance medicine share with other renaissance activities? How can the renaissance love of all things Greek, visible in sixteenth century medicine, be reconciled with the vigour of the form and content of surviving Arabic and medieval medicine?

These and many related questions are tackled by the contributors to this volume. Nancy Siraisi shows how Avicenna's *Canon* remained a popular text throughout the century and beyond, Gerhard Baader describes how the arch-humanist Jacques Dubois (Sylvius) incorporated Arabic elements into his practical works and Andrew Wear brings forward evidence to show that Arabic and medieval textbooks on practical medicine were by no means redundant in the renaissance. What seem to have been especially valued were the practical instructions and the prescriptions of the Arabs and medieval writers, no doubt because they were of use in the actual practice of medicine, distant from but not necessarily incompatible with the carefully restored Greek texts. Sometimes, as in the case of the *Canon* and the *practica* (textbooks on practical medicine) attempts were made to reconcile the usefulness of such texts with the aims of humanist scholarship by 'humanizing' them, either by correcting the translation or by purging the language of barbarisms.

As suggested above, the historians' notions of 'renaissance' and 'humanism' have been generated without particular, or any, reference to medicine; and we should, then, be careful about applying these terms too easily to the medicine of the time and its practitioners. Roger French shows that in the late fifteenth and early sixteenth century much of what we call 'humanism' was seen by medical contemporaries as 'Hellenism'. The Hellenists viewed Latin merely as the language in which Greek ideas were transmitted and were very different from the humanists of the previous century, who praised and emulated the classical Roman authors. It is further argued in his chapter that while the earlier humanists had been concerned to put their texts into an historical setting, Hellenists like Leonicensio went straight to the Greek and received Greek medical knowl-

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edge not only uncritically but unhistorically. In contrast an academic like Berengario da Carpi, opposing these features of Hellenism, displayed a textual sensitivity (even to Arabic sources) and an historical awareness which we would associate with humanism but which he made characteristic of the work of the *scholastici*. Clearly the 'scholasticism' and 'humanism' of renaissance studies do not translate easily into medical terms.

The meaning of these terms in a medical context is rounded out by the different emphases put on them by Iain Lonie in his chapter on the Paris Hippocratics, and by Vivian Nutton's discussion of how so practical an arm of medicine as surgery could be 'humanised'. A rather different aspect of practical medicine, that of the writers of the *practica*, discussed by Andrew Wear, again shows us a combination of textual and historical sensitivities with practical application.

Despite the obvious usefulness of old techniques and *materia medica*, and despite the attempts to retain this usefulness by modernizing them it is clear that the sixteenth century medical writers felt that they were making a break with their Arabic and medieval past. They believed that they were creating a Reformation for medicine of which the central feature was the purification and assimilation of Greek knowledge. But the spirit of a Reformation is a more radical thing than its practice, and in looking at the topics of the conference – the teaching and practice of medicine – the participants agreed that the most obvious signs of change lay in the rhetoric and the ideological positions adopted by the medical men of the sixteenth century.

Associated with the issue of continuity and change is the question of progress. The whig historian looking for the origins of modern medicine in a progress of human knowledge 'ever upward and onward' would find little to enthuse over in the sixteenth century as a whole. Only in anatomy was there progress in this sense, and it is no accident that this is the area into which historians have delved the most. Indeed, in looking for progress historians have been inclined to jump from Vesalius, as a kind of progressive signpost to Harvey, to Harvey himself, without examining closely the ground they have passed over. It is no accident that this book does not include an account of Vesalius' work and does not extend its time scale to cover Harvey's. Instead it shows that 'progress' meant different things to different medical men in the sixteenth century, and that their notions of progress were different from our own. We, like them, believe that progress is *making medicine better*; but our view is predominantly that this will continue to happen only from the acquisition of new knowledge – research and discovery. But in the sixteenth century making medicine better might be seen in addition, as a question of making it more rational, or more observational, or closer to its pure and original sources, or freer from the dependence on authority. The contemporaries of Houllier and the other Paris Hippocratics did not praise them for their discoveries but

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for their wide knowledge of classical sources, for integrating it with their wide experience and bringing this unity of scholarship and experience to bear upon contemporary medical problems: 'erudition in the service of practice' in Iain Lonie's phrase. The Paris Hippocratics and the physicians and surgeons described by Wear and Nutton did not merely 'go back to the Greeks' but sought to manipulate Greek knowledge into the circumstances of sixteenth century practice: their scholarship, although important to them in its own right, was primarily important in making available a better standard of medicine.

What unites the medical men described in these chapters is their common attempt to improve medicine. The differences between them relate to the faults they found in contemporary medicine and in the ways they chose to remedy them; and for this book it is important that these differences become clear at the level of teaching and practice. Thus behind the Venetian apothecaries' practical, step-by-step attempts (described by Richard Palmer) to reconstitute the ancient theriac is the notion of the superiority of classical remedies. Others, like the Parisians and Sylvius, found it necessary not only to restore Greek medicine but to make it apply to the new circumstances of sixteenth century Europe. Where this involved modification to the medicine of the ancients the means of doing so was often found within ancient medicine itself. For example, well-read anatomists knew that Galen had laid down rules for procedure that provided for anatomy to be extended beyond Galen himself. And as Andrew Cunningham shows, in engaging in an Aristotelian enterprise to find Aristotelean answers, Fabricius of Aquapendente expected nevertheless to go further than Aristotle had done. In fact, the chapter of Jerome Bylebyl on the pulse controversy and that of Andrew Cunningham analyse the fine structure of anatomical and physiological thought. They illustrate the wide range of factors: methodological, observational, textual and authoritarian that, in Bylebyl's phrase, helped to make up the fabric of renaissance physiology. The two chapters show that progress, even in anatomy, was very different from the modern concept.

Naturally, sixteenth century physicians were sometimes faced with problems that appeared difficult to solve on a basis of humanised Arabic or reconstituted Greek medicine. For example, medicine seemed largely inefficient against plague and certain skin conditions, and on the other hand, *new* diseases like syphilis had no classical precedent or authority and so they did not always seem to fit into the dominant theory of disease which was based on the theory of temperaments. Linda Deer Richardson discusses how Jean Fernel became dissatisfied with the theory of temperaments as an explanation of certain diseases and developed the idea that there were hidden or occult causes of disease together with diseases of the 'total substance'. Fernel's theory was not so radical as it might seem, for it had been suggested by Galen and was known to Fernel's contemporaries.

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This can be seen as another and extreme example of the refining of Greek medicine with Greek materials. The process allowed for flexibility of approach to traditional medicine, and the extent to which Fernel uses that flexibility reflects the urgency of the problems posed by syphilis. That few followed Fernel was not merely because most of his contemporaries were orthodox Galenists but because they felt, after due consideration, that Fernel's solution was inappropriate and unintelligible. Of course (to put it another way), the training of physicians was based upon Hippocrates and Galen and these authors defined in one sense what was rational and intelligible for university-trained physicians. However, there still remained in the orthodox mind a space for critical awareness: the variability of patients and of conditions which physicians and surgeons came across every day meant that there was a constant need to keep a place for learning by observation and experience. As Vivian Nutton writes, the success or failure of a surgical technique was more obvious than the effects of a drug in internal medicine.

The academic training of physicians did not only consist in reading medical writers like Hippocrates and Galen. It was Galen who had written that the 'best doctor is also a philosopher', and many sixteenth century university teachers of medicine had a sophisticated grasp both of the techniques and content of philosophy. The traditional method of dialectical argument for and against an opinion was frequently used by medical writers (though, as Bylebyl shows, in the seventeenth century dialectical argument was falling into dispute even in the eyes of a traditionalist like Jean Riolan, the Younger). Also a high level of philosophical awareness in the minds of medical writers was ensured by the continuing debates between the followers of Aristotle and Galen.

Charles Schmitt has looked at the relationship between medicine and philosophy, not from the point of view of how physicians used philosophy but rather from that of how philosophers thought their subject could be of use in the education of physicians. It seems that philosophers often saw their subject as an end itself rather than as a stage in the education of physicians. However, there was an awareness on the part of some philosophers and physicians (and this was enshrined in university statutes) that certain branches of philosophy should be taught as necessary preliminaries to the study of medicine. Schmitt's chapter also throws light on the relative status of teachers of philosophy and medicine and reminds us that in the sixteenth century medicine was held in greater esteem than philosophy when measured by the internal university ranking and by the salaries of the teachers of the two subjects.

One practical aspect of medicine, that relates closely to other aspects of sixteenth century society, and was taught to all physicians was pharmacology. It was also the business of the botanist and the pharmacist. Richard Palmer's chapter opens up for us a vivid vista of the activities of Venetian

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doctors, botanists and pharmacists as they relate to pharmacy. Drawing upon contemporary archival sources, Palmer describes the development of botanical research in the light of the renewed interest in Greek botany, the growing influence of Paracelsian chemical remedies in the second half of the sixteenth century and the relationship, both intellectual and commercial, between doctors and pharmacists. The closeness of this relationship should counter the idea put forward by older histories of medicine that there was a rigid separation between doctors and pharmacists.

Although this book has a necessarily limited focus and is mainly concerned with intellectual aspects of sixteenth century medicine there are some other glimpses of the way in which academic medicine was located in society. Vivian Nutton, while describing how surgery was 'humanized' and given a Greek basis, depicts the flourishing, if frantic, world of renaissance academic publishing. Gerhard Baader's chapter on Jacques Dubois illustrates how the desperate social condition of contemporary France and the reaction of the State to starvation and poverty stimulated men like Dubois to write books on diet for the poor.

At this point it may be useful to turn to aspects of sixteenth century medicine not touched upon in this book except in one important chapter. This will help to put the book into a larger perspective.

Medicine for the sixteenth century, as for most periods, was concerned with preserving health and with curing illness. Such is the hunger for these two commodities that there has nearly always been a buyers' market for them. However, suppliers, buyers and, indeed, markets have varied enormously not only over time but also within a country in any one period; with different groups and classes of patients patronizing different types of medical practitioners. In the sixteenth century there was a wide variety of medical expertise available ranging from wise-women, charmers, wizards or magicians, astrologers, priests and ministers and their wives, herbalists, empirics and barbers to pharmacists, surgeons and physicians. In terms of articulateness and literary remains the latter group appear to predominate. However, only a small minority of people used the services of the trained and educated pharmacists, surgeons and physicians. In sixteenth century Europe most people would have had recourse to practitioners who had not been formally trained and whose knowledge was part of the oral culture of the period. The village wise-woman or the clergyman's wife was unlikely to publish anything about her skills, while the possibility that anything written could be used as evidence in a prosecution by Church or State discouraged publication by anyone practising magical healing. As is usual, the written word – in this case that of the educated physician – attempted to suppress the oral culture and to assert its own values instead. Unlike the late nineteenth and twentieth centuries the attacks of the trained practitioners against the empirics were not necessarily made from a position of strength; for the protection given

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to them by licensing was still very weak in the sixteenth century and they were, in numerical terms, in a minority. The chapters by French, Nutton, Deer Richardson and Wear allude to the way in which orthodox university-trained medical men condemned and derided their uneducated rivals. How far they did this because of a genuine concern to keep up standards or because of self-interest is a matter for debate. In contrast, Richard Palmer illustrates the pragmatism of the Venetian authorities in accepting and licensing empirics.

Luis García Ballester, however, makes a significant contribution to our knowledge of the other side of medicine. He puts empirical practice into its cultural setting and, by describing how morisco healers survived in Spain allows us to go behind the rhetoric of orthodox physicians and to share the viewpoint of the empiric. Ballester describes the conditions that produced the morisco healers and he also shows how the Church and the academic physicians put severe pressure on them. The history of popular medicine in pre-industrial Europe has yet to be written, but contributions such as Ballester's will prepare the ground.

Finally, the radical alternative to orthodox university-based medicine must be mentioned. Paracelsus wanted to replace the books of Aristotle and Galen with a new philosophy and a new medicine. In some senses it was an attempt to place oral knowledge (craft wisdom) and secret and half-forbidden practices (alchemy and magic) into the world of literary culture. University physicians reacted to the ideas of Paracelsus in various ways. Paracelsus had put forward new theories in different areas and at different levels. Physicians could embrace all of his cosmology, natural philosophy, physiology, pathology and therapeutics, they might accept one or two bits – especially therapeutics where some were tempted to use chemical remedies in addition to, or instead of traditional herbal ones – or they could reject Paracelsus altogether. Although Paracelsus died in 1541, his followers did not exert any influence until the second half of the century and it was not until the beginning of the seventeenth century that they made a major impact on the bastions of Galenic orthodoxy in countries such as England and France.

The cosmology and medical theories of Paracelsus and his followers have been explored by historians but the practical aspects of Paracelsian medicine have received little attention. Walter Pagel had begun such a study for this book, but sadly he died before he could finish it. His preliminary finding indicated that, when stripped of its theory, Paracelsian medicine in practice – that is in diagnosis and treatment – was very similar to Galenic medicine, with the important difference that chemical drugs would have been used.

For this book, the existence of Paracelsian medicine is significant because it shows that there was a radical alternative to Galenic medicine; it provided a place for those who were so dissatisfied with Galenic medicine

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that they could not be content merely to modify it. On the other hand, the vast majority of medical men were happy to work in the broad framework given to them by their predecessors. They used their scholarship within that framework and their practical experience to refine and extend medicine in answer to the practical problems that they faced.