

## BOOK REVIEW

Evan R. Ragland, *Making Physicians: Tradition, Teaching, and Trials at Leiden University, 1575-1639* (Brill, 2022)

*Making Physicians* is the first part of a two-volume study of Galenic university medical education in the nascent Dutch Republic. Galenists have long been used as foils in standard narratives of the development of modern science and medicine. Like the Aristotelians of the universities, they have been depicted as the hidebound purveyors of old-fashioned forms of knowledge that were swept aside by the practitioners of the new science of the seventeenth century. In this work, Evan R. Ragland demonstrates that many commonly held beliefs about the forms of medical knowledge and practice that were supposedly dispatched during the seventeenth century are misplaced. His central point is that Galenism has simply not been studied in sufficient detail. A collective failure to engage with its intellectual content and its knowledge-making, therapeutic, and pedagogic practices, has given rise to a series of misapprehensions about this tradition. To remedy this situation, Ragland provides a detailed reappraisal of the nature of Galenism in one specific institution, the University of Leiden, during the period 1575-1639. Although primarily based on this relatively limited example, Ragland deftly places his case study in a wider context and uses it to provide an alternative narrative of not only the history of early modern medicine but also the history of scientific experimentalism.

At the core of Ragland's argument, lies the contention that historians have misunderstood and misrepresented the nature of Galenic theory, its subsequent interpretations, and the diagnostic and therapeutic practices built upon it, with significant consequences for understanding the history of medical development. Returning to the sources, Ragland shows that the received historical interpretation represents not only a misreading of early modern Galenism but also of the aims and intentions of Galen himself. Notably, he demonstrated that the university professors who worked at Leiden and the physicians whom they trained did not conceive of health as an imbalance of fluid humours that affected the whole body, but instead believed that disease had specific 'seats' that could be located in the individual parts of the body. In this system, the humours contributed to the imbalance within the internal constitution of specific bodily parts including individual organs. Building on the work of previous historians, Ragland shows that far from being anomalous, the ideas taught and developed in Leiden typified early modern Galenism. Indeed, the ideas and practices taught in the medical school were characteristic of a style of Galenism revived in Italy, especially at the University of Padua, in the later fifteenth century.

Having revised the historical picture of Galenic theory in this manner, Ragland proceeded to criticise many of the clichés that populate standard accounts of the history of medicine. Therapeutics provides a good example. The current understanding of Galenic medicine has led to a historiographical emphasis on the maintenance of overall humoral balance within the body and therefore has privileged accounts of the management of health, rather than interventions designed to alleviate particular afflictions. As Ragland demonstrates, the physicians trained in Galenic medicine at Leiden received instruction on how to produce medicines that targeted specific parts of the body rather than help restore overall balance and how to use interventions such as bloodletting to improve the humoral balance of individual parts of the body. Ragland also showed how Galenists adapted to and incorporated innovation. For example, although their healing practices were rooted in Galenic traditions, the university masters of Leiden incorporated chymical cures into their teaching and practice.

Perhaps most significantly, Ragland shows how understanding contemporaries' emphasis on locating seats of disease can cast new light on the practice of anatomy. Older accounts have argued that while the development of anatomy from the late fifteenth century transformed understandings of the body, it had little impact on either the understanding of disease or therapeutics. Ragland demonstrates that, from the late sixteenth century, physicians at Leiden were using postmortem anatomies to identify causes of

disease, by relating them to visible changes in specific organs of the body. Moreover, medical students were taught to correlate symptoms observed in living patients with internal pathological lesions revealed during postmortem anatomy. This understanding of disease structured medical education at Leiden. Through instruction at the bedside, students learned to recognise external signs of disease in live patients and then, following the patient's death, they were shown their ultimate cause. Following the lead of Michel Foucault and Erwin H. Ackerknecht, historians have tended to locate these intellectual innovations in the vast hospitals of eighteenth-century Paris, but as Ragland's study shows, these narratives require wholesale revision.

These insights form the basis for a series of wider claims that hold broad significance for the historiography of early modern medicine and science. Taken as a whole, the work convincingly argues for the ongoing significance of Galenism in the early modern period. While historians have, for example, revealed the ongoing use of Hippocratic environmental medicine and regimens in the eighteenth century, Galen and Galenism have been hitherto marginalized in these revised stories. Furthermore, returning to a venerable theme in the history of early modern science, Ragland contends that we should recognise the traditions of Galenic knowledge-making and teaching as one of the sources of the experimentalism characteristic of science from the seventeenth century onwards. In this sense, he makes important contributions to the process of revising the role of the universities and older traditions of knowledge-making in the development of early modern science.

*Making Physicians* is a meticulously researched book that balances a detailed exposition of primary materials with clear and cogent statements of its central arguments. Although its central claims are primarily concerned with one highly specific context, it offers a model for further research in other comparable institutions. The work deserves to be widely read and its insights incorporated into revised accounts of the history of medicine and science. I look forward to reading the second volume greatly.

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