

Bulletin of the History of Medicine

The American Association for the History of Medicine
The Johns Hopkins Institute of the History of Medicine

THE ANTIKAMNIA
CALENDAR
1900



JANUARY

SUN	MON	TUE	WED	THU	FRI	SAT
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

FEBRUARY

SUN	MON	TUE	WED	THU	FRI	SAT
		1	2	3		
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28			

4905115

NO SUBSTITUTION

Founded by Henry E. Sigerist

Gert H. Brieger, Jerome J. Bylebyl *Editors*

Susan L. Abrams *Assistant Editor*

Julia A. McVaugh *Copyeditor*

Advisory Editorial Board

Rima D. Apple	Richard A. Meckel
Michael Bliss	Edward T. Morman
Jacalyn Duffin	Steven J. Peitzman
Elizabeth Fee	Arleen M. Tuchman
Christopher Lawrence	John Harley Warner
Harry M. Marks	Dora B. Weiner

Published by The Johns Hopkins University Press

Cover: We continue our series of calendars produced and distributed to medical practitioners by the Antikamnia Chemical Company, of St. Louis, Missouri, between 1897 and 1901. The calendars were illustrated by Louis Crusius (1862–1898), a physician and pharmacist in St. Louis. This calendar, entitled “No Substitution,” is unusual in its implied reference to competing chemical companies: most of Crusius’s calendars used gentle contemporary humor to publicize Antikamnia’s products. Reproduced with permission of the Becker Medical Library, Washington University School of Medicine, St. Louis, Missouri. The editors thank Lilla Vekerdy, Rare Book Librarian at the Becker Medical Library, for her help in interpreting the illustrations.

Boerhaave and the Flight from Reason in Medicine

HAROLD J. COOK

Boerhaave's is a name to reckon with. It is invoked often in the history of medicine and science as if there were a widespread understanding of his views, his accomplishments, and his causal influence. Our "knowledge" about Boerhaave's importance, however, is often familiarity with the icon rather than the person. The mythology makes him into perhaps the greatest rational systematist of modern medicine, providing the foundation for eighteenth-century academic medicine. Even less-exalted claims tend to emphasize his singular importance. If we treat him instead as a very thoughtful and articulate participant in the intellectual culture of his day, we can not only show his debt to others, we can, more importantly, draw some conclusions that show his partisanship for a particular outlook.

Rather than trying to reconcile reasoned theory with sensory experience, Boerhaave placed all his confidence in the latter; rather than attempting to unify knowledge of mind and body, he declared that the physician needed only to understand the latter. In his religion as in his medicine he trusted experience rather than reason, shedding discussion of doctrine and its consequences. Whatever he may have believed when he prayed, Boerhaave's medical teachings explicitly avoided any reference to immaterial powers, whether they be faculties or a soul, in favor of that which could be known through the senses. Accordingly, in contrast to medical professors like Georg Ernst Stahl, he separated his religious views from his medical ones. Moreover, given his refusal to comment at length on the relationship between the rational soul (or mind) and the body, materialists such as Julien Offray de La Mettrie could claim him as

I would like to thank Paul Wood and Roger Emerson for inviting me to write about Boerhaave for a conference on the medical and scientific Enlightenment, held at Edinburgh in 1998, and for the comments of all the participants; and thanks especially to the anonymous referees of an earlier version of this manuscript.

one of their own. Examined from this point of view, his work points to one of the main sources of tension in academic medicine at the beginning of the eighteenth century: would it lead people away from a full account of humans into the merely useful knowledge of the corporeal body?

Until recently, most accounts of Boerhaave have taken their direction from the *Oratio academica: In memoriam Hermanni Boerhaavii*, delivered by his colleague Albert Schultens in November 1737 and published soon thereafter. In addition to his personal acquaintance with Boerhaave, Schultens had access to Latin notes about his life written by Boerhaave himself shortly before his death, apparently with the forthcoming occasion in mind. Schultens printed Boerhaave's words in large italics, and they were subsequently gathered together as the so-called *Commentariolus*.¹ Schultens's oration was a paean to the good character and powerful intellect of his former friend. His Latin account served as the basis for the English biographical essays by Samuel Johnson and by Boerhaave's student and admirer William Burton.² They, too, saw him in heroic terms. Until recently, most English-language accounts derived from them. Dutch historians of medicine tended to reinforce the view of Boerhaave as the highest pinnacle of Enlightenment medicine. For instance, in 1968 the professor of anatomy at the University of Leiden, J. Dankmeijer, gave an address on Boerhaave asking "Is Boerhaave's Fame Deserved?"—to which he emphatically answered "yes."³ More significantly, Gerrit Lindeboom's major English-language study of Boerhaave, also from 1968, is a revival of Schultens's enthusiasm in modern dress. For Lindeboom, Boerhaave brought order to chaos: "before Boerhaave's appearance practical medicine was in a state of confusion and often not more than a precarious empiricism," or worse; "hence," he concludes, "there was a lifetime's work for a man with keen insight into the momentous needs of theoretical and practical medicine and of medical education. Such a man made his appearance in Boerhaave."⁴ Until the end of the 1960s, then, the major accounts in English and Dutch stressed Boerhaave's superb character and his rational intellect.⁵

1. This first appeared as an appendix to William Burton's work: see below.

2. See D. A. K. Black, "Johnson on Boerhaave," *Med. Hist.*, 1959, 3: 325–29; and see below for Burton.

3. J. Dankmeijer, "Is Boerhaaves faam gerechtvaardigd?" in F. L. R. Sassen and idem, *Herman Boerhaave 1668/1968* (Leiden: Universitaire Pers, 1968), pp. 23–39; idem, "Is Boerhaave's Fame Deserved?" in *Boerhaave and His Time*, ed. Gerrit A. Lindeboom (Leiden: E. J. Brill, 1970), pp. 17–30.

4. Gerrit A. Lindeboom, *Herman Boerhaave: The Man and His Work* (London: Methuen, 1968), p. 9.

5. My impression is that this is true of the German historiographic tradition as well, but I await the work of others on it.

French historians, on the other hand, treated Boerhaave as of far more ordinary mental capacity. Charles Daremberg, for example, in his notable nineteenth-century *Histoire des sciences médicales*, remarked that “in the *Aphorisms* and in the *Institutes* there is nothing profound nor anything beyond the ordinary reach of the human mind; neither is the form new nor the doctrine sublime and innovative; it seems to me that the commentary of his disciple Van Swieten is far better than the text of his master.”⁶ Given his assessment of Boerhaave’s intellect as rather ordinary, Daremberg acerbically dismissed Schultens’s account as “tiring due to a convulsive and gasping enthusiasm. The oration begins, proceeds, and concludes with exclamation points.”⁷ Daremberg preferred the account of Boerhaave written by the infamous La Mettrie.⁸ La Mettrie relied on Schultens for biographical information, but in treating his professor’s ideas as materialist he has provoked many Boerhaave enthusiasts ever since.⁹

Since the 1970s, attempts have been made to find other ways to account for Boerhaave’s importance, with little success. For instance, there is an oft-repeated story to confirm his fame: that a letter from China arrived in his hands addressed merely “to Mr Boerhaave Physician in Europe.” This story, however, told since at least 1802, when Antoine François de Fourcroy inserted it in one of his lectures on chemistry at the Jardin des Plantes in Paris, probably originated with a letter from the Dey of Tunisia that hardly needed an address, forwarded as it was to The Hague via the diplomatic pouch of the Dutch ambassador.¹⁰ The notion that he became a professor at the famous medical school of Leiden because his genius was recognized has been demolished by Maarten Ultee’s account of how he finally obtained the post.¹¹ Boerhaave has also been hailed as the father of academic clinical teaching¹²—but as Harm Beukers has shown, he was neither an innovator of this practice, nor an especially energetic practitioner of it in his public role as a medical

6. Charles Daremberg, *Histoire des sciences médicales* (Paris: Baillière, 1870), 2: 890: “Dans les *Aphorismes* et dans les *Institutions* il n’y a ni profondeur, ni rien qui dépasse la mesure ordinaire de l’esprit humain; ni la forme n’est nouvelle, ni la doctrine n’est sublime et inouïe; il me semble même que le commentaire du disciple Van Swieten vaut beaucoup mieux que le texte du maître.” It was Daremberg to whom Dankmeijer addressed himself.

7. *Ibid.*, p. 889 n. 3.

8. *Ibid.*, p. 889: La Mettrie’s *Vie* “est beaucoup plus calme et plus instructive.”

9. For example, see Lindeboom, *Herman Boerhaave* (n. 4), pp. 238–39.

10. Otto M. Marx, “M. Boerhaave en Europe: The Origins of an Anecdote Explained?” *J. Hist. Med. All. Sci.*, 1968, 23: 389.

11. Maarten Ultee, “The Politics of Professorial Appointment at Leiden, 1709,” *Hist. Univ.*, 1990, 9: 167–94.

12. For a good summation of this view, see Guenter B. Risse, “Clinical Instruction in

professor at Leiden.¹³ Then there is the approach emphasizing Boerhaave's physiological theories. Called a "mechanist," or a "systematist," or praised for his account of a physiology of fluids and solids, he is held up as the formulator of the major medical doctrine of the eighteenth century.¹⁴ Yet the physiological theory associated with Boerhaave is probably best characterized as one shared widely with others: for example, the notion that many organs of the body were composed of fluids and solids owes much to others—such as Marcello Malpighi's investigations into glands, and the techniques of anatomical injection developed by Frederick Ruysch, among others.¹⁵

Boerhaave's famous disciple Albrecht von Haller called him *communis Europae praeceptor* ("teacher of all Europe"). Especially the commentaries on Boerhaave's *Institutes* by Haller and those on his *Aphorisms* by Gerhard van Swieten gained much fame and wide circulation. But as Willem Frijhoff has shown, the period of Boerhaave's professorships shows a decline both in the absolute number of foreigners who took their medical degrees at Leiden and in the percentage of foreigners who studied at Leiden rather than at other Dutch universities. Frijhoff has therefore quite sensibly argued that Boerhaave's considerable reputation may have owed more to the changes in Dutch academic medicine advanced in the seventeenth century than to his personal genius.¹⁶ Some of Boerhaave's students, for instance, began formal medical instruction at Edinburgh, Vienna, and Göttingen, and attributed their own importance in part to the teachings of their professor rather than to other people and events (such as those who established the schools). They continued to foster a medical outlook associated with the Leiden school even before Boerhaave's time, one growing in importance in the eighteenth century: the ancient ideal of the learned physician as the judge of each individual's unique life circumstances was fading in light of surgical and medical intervention and the advancement of the profession within the state.¹⁷ In other

Hospitals: The Boerhaavian Tradition in Leyden, Edinburgh, Vienna and Pavia," *Clio Med.*, 1987/88, 21: 1–19.

13. Harm Beukers, "Clinical Teaching in Leiden from Its Beginning until the End of the Eighteenth Century," *Clio Med.*, 1987/88, 21: 139–52.

14. See Lester S. King, *The Medical World of the Eighteenth Century* (Chicago: University of Chicago Press, 1958), pp. 59–93.

15. Edward G. Ruestow, "The Rise of the Doctrine of Vascular Secretion in the Netherlands," *J. Hist. Med. All. Sci.*, 1980, 35: 265–87.

16. Willem Th. M. Frijhoff, *La Société Néerlandaise et ses diplômés, 1575–1814: Une recherche sérielle sur le statut des intellectuels à partir des registres universitaires* (Amsterdam: APA—Holland University Press, 1981), pp. 103–7.

17. As Frijhoff puts it: "laissant derrière lui l'ancien idéal de formation humaine et

words, it was the viewpoint of Dutch medicine, which Boerhaave happened to be in a position to communicate, that made him famous, rather than his character or intellect.

Similarly, Andrew Cunningham has advanced the argument that Boerhaave was a representative of Dutch medical teaching, which Cunningham describes as clear, industrious, and tolerant. Boerhaave's teachings were adopted at Edinburgh especially for their irenicism, Cunningham argues. He had the ability to combine various medical arguments into an eclectic but unified system that brought peace of mind rather than divisive disputes. This suited the need to dampen the formerly bitter disputes between physicians, surgeons, and apothecaries in Edinburgh. For Cunningham, Boerhaave's contributions resulted from his search for peace of mind, which in turn stemmed from his religious training: "Boerhaave's medicine was his theology—itsself built round a desperate desire for peace of mind—in another domain."¹⁸ Indeed, Boerhaave, like many ancient and early modern philosophers, made tranquility of mind a chief goal of knowledge. Yet, to the extent that theology is equivalent to teachings of religious doctrine, he rejected a theological outlook. The sources for his quest may not have been in his theology; in any case, in his medical works he held back virtually all suggestions of his religious outlook. He apparently remained privately religious, but in his religion as in his medicine he came to denounce teachings built on rational arguments. As in his medicine, so in his religion: he was no theological irenic, but rejected doctrine in favor of experience, wherever it might lead.

A reexamination of the evidence concerning what Boerhaave thought about the use of reason, then, can yield a deeper understanding of his outlook and the extent to which it represents a particular school of thought. It can be shown that he went through an intellectual conversion in the early 1690s, before he became a physician, that turned him against the power of reason to examine the causes of things. While there remain only hints about the sources of this conversion, the consequences can be shown. Following this fundamental shift, the kind of intellectual problems he left silently aside in his academic medicine turn out to be as

générale, il s'engage peu à peu sur le chemin de la formation professionnelle" (ibid., p. 105). Also see Harold J. Cook, "Good Advice and Little Medicine: The Professional Authority of Early Modern English Physicians," *J. Brit. Stud.*, 1994, 33: 1–31.

18. Andrew Cunningham, "Medicine to Calm the Mind: Boerhaave's Medical System, and Why It Was Adopted in Edinburgh," in *The Medical Enlightenment of the Eighteenth Century*, ed. Andrew Cunningham and Roger French (Cambridge: Cambridge University Press, 1990), pp. 40–66; quotation on p. 47.