CrossMark

Science in Context **28**(3), 465–487 (2015). © Cambridge University Press 2015
doi:10.1017/S0269889715000204

Reading Communities and Hippocratism in Hellenistic Medicine

Marquis Berrey

University of Iowa
E-mail: marquis-berrey@uiowa.edu

Argument

The sect of ancient Greek physicians who believed that medical knowledge came from personal experience also read the Hippocratic Corpus intensively. While previous scholarship has concentrated on the contributions of individual physicians to ancient scholarship on Hippocrates, this article seeks to identify those characteristics of Empiricist reading methodology that drove an entire medical community to credit Hippocrates with medical authority. To explain why these physicians appealed to Hippocrates' authority, I deploy surviving testimonia and fragments to describe the skills, practices, and ideologies of the reading community of ancient Empiricist physicians over the one-hundred year period 175 to 75 BCE. The Empiricist conception of testimony taken on trust operative within that reading community elided the modern distinction between personal and institutional targets of trust by treating Hippocratic writings as revelatory of the moral character of Hippocrates as an author. Hippocrates' moral character as an honest witness who accurately observed empirical phenomena aligned with the epistemic virtues of an empirical medical community who believed that medical knowledge came from personal experience. So I argue that Empiricist reading culture constructed a moral authority of honesty and accuracy from Hippocratic writings, enlarged the personal authority of Hippocrates among medical readers, and contributed to the development of Hippocratism.

Introduction

My theme is the authority readers give authors; my case study is a particular episode in the history of medicine, the development of Hippocrates' authority among an ancient medical reading community. Scholars have been writing histories of medicine since Menon, the student of the philosopher Aristotle, wrote a history of medicine.[1] By

[1] (Nutton 2012) is the most comprehensive account of medicine in Greco-Roman antiquity; see (Nutton 2012, 58–59) on Menon. References to ancient medical writers are unwieldy. I cite the titles of Galenic treatises according to the Latin abbreviations of (Singer et al. 2014, 429–442), followed by a reference to the volume

https://doi.org/10.1017/S0269889715000204 Published online by Cambridge University Press

contrast the study of the history of reading is a relatively young academic area. Despite the differences in age between the history of medicine and the history of reading, these academic disciplines have much to offer each other. An historical anthropology of reading in medicine has the potential to illuminate the circulation of knowledge in historical medicine. After all, when we think of medicine, we may often think of empirical science such as dissection practices on cadavers or trial screenings of novel pharmaceuticals. And yet the practice of reading and writing supplement each of these empirical procedures in contemporary medicine. For example, pharmaceutical trials would be impossible without extensive written documentation about the progress and effect of particular drug combinations on different diseases and different classes of patients. In the heart of every medical research institution – the epicenter of empirical scientific medicine – is a library stocked with past case reports and published empirical investigations. Labs and libraries are equally a part of the structure of modern research hospitals.[2]

But the combination of labs and libraries is not unique to modernity. Even Greco-Roman antiquity had the juxtaposition of medical knowledge gained through experience and medical knowledge gained through reading. Starting around 300 BCE in the Greek kingdoms after the death of Alexander the Great, the Hellenistic period in ancient history, several Greek physicians dissected and likely vivisected human bodies: these are the first scientific anatomical studies in the historical record. At the same time as the introduction of anatomical studies into Hellenistic medicine, doctors turned to read the works of Hippocrates of Cos, whose writings predated widespread anatomical knowledge. Hippocrates was a historical physician who was a contemporary of the ancient Athenian philosopher Socrates; he was said to have written a large body of medical works – case histories, surgical treatises, ethical treatises, theoretical accounts of the body – now collected as the Hippocratic Corpus.[3] While the earliest secure medical reading of Hippocratic texts can be dated to the end of the fourth century BCE, it remains unclear when systematic commentary on Hippocratic texts began (von Staden 2006, 16). There was a particular group of Hellenistic doctors with a shared medical philosophy, or medical sect, who philosophized that medical knowledge could

number and page of (Kühn 1821–1833) if included; I include an additional cross-reference for treatises that exist in a critical edition. I cite Erotian according to the edition of (Nachmanson 1918). For fragments and testimonia, I cite those of the Empiricists according to (Deichgräber 1965) = D and those of Heraclides of Tarentum according to (Guardasole 1997) = Gu. (Singer et al. 2014, 429–442) includes a list of available translations of Galenic texts into modern languages; (Fichtner et al. 2013) includes a list of available translations of Hippocratic texts into modern languages; there is no modern language translation of Erotian. While I have profitably consulted previous translations, all cited translations from Greek and Latin are my own.

[2] Compare (Daston 2012) on the non-medical "sciences of the archive."

[3] The first extant list of authentic Hippocratic works is Erotian 9.7–21 Nachmanson, who lists 31 works. Modern lists of works ascribed to Hippocrates can be found in (Jouanna 1999, 373–416) and in (Fichtner et al. 2013), who list 63 and 171 works respectively.

https://doi.org/10.1017/S0269889715000204 Published online by Cambridge University Press

only be gained from personal experience.[4] From their valuation of experience above all else they were called Empiricists, since *empeiria* in Greek means experience. Empiricists compared themselves to other artisans, such as sailors, peasants, vintners, and bakers, who act according to experientially derived skills, not according to a theoretically derived account (Galen *Med.Exp.* 98–99 Walzer).

Yet the Empiricists were also the earliest medical sect to revere uniformly Hippocrates and his writings. Physicians from multiple sects in the third century BCE variously criticized or praised Hippocrates.[5] While third-century BCE sectarian physicians evidenced a mixture of respect and critique toward the Hippocratic texts, all second- and first-century BCE Empiricist authors (considered below) valued Hippocrates as a source of medical observation and therapy. Other medical sects continued to variously praise or criticize Hippocrates. It is therefore relevant to the developing notion of Empiricist group identity that all Empiricists praised Hippocrates. The uniform reverence toward Hippocrates of second-century Empiricists marks a notable turn in internal sectarian self-fashioning (Berrey 2014, 149). How could those physicians who thought medical knowledge could be best gained through personal experience also revere an earlier medical author as a medical authority? The Empiricists felt compelled to read previous medical works because they thought the entirety of medical knowledge too great for any one individual to experience. They thought that reading other physicians' experiences (called *historia*) could supplement their own. A methodology of medical reading was born. While previous scholarship has concentrated on the contributions of individual sectarian physicians to ancient scholarship on Hippocrates, this article seeks to explain why second- and first-century Empiricist physicians uniformly appealed to Hippocrates' authority. What characteristics of Empiricist reading methodology drove an entire medical community to credit Hippocrates with medical authority?

Apart from one surviving text we possess only fragments of the Empiricists in texts quoted and abridged by later authors but several later physicians describe Empiricist methodologies. Galen, the chief witness, constructs the Empiricists as a philosophically astute and skeptically inclined medical community. Whatever the reliability of this presentation for Empiricists of his own day, Galen's evidence does not accord with

[4] See (von Staden 1982; Berrey 2014) on ancient medical sects. Fragments, testimonia, and doxographies about the Empiricists are collected in (Deichgräber 1965). All citations of Galen's *Subf.Emp.* are keyed to the Latin text printed in (Deichgräber 1965).

[5] The leading anatomist Herophilus (d. 260–250 BCE) criticized some of Hippocrates' texts and some of his students followed him, yet it is not clear that their comments took the form of exegetical works on Hippocratic texts (von Staden 1989, 427–432). Bacchius (fl. 225 BCE), a direct student of Herophilus, was the first to write systematic commentaries and a lexicon to Hippocrates (von Staden 1992). The first known Empiricist Philinus of Cos (fl. 250–225 BCE) had written a six-book work explaining Hippocratic glosses in contradiction to Bacchius' lexicon (Erotian 5.3–4 Nachmanson = Empiricist fr. 311 D). The Empiricist Serapion of Alexandria (fl. 225 BCE) was said to have attacked Hippocrates, even while he wrote a comment on at least one Hippocratic text (Empiricist. fr. 10b = p.86.1–4 D, Kudlien 1989, 368; Empiricist Zusätze fr. 360c, von Staden 2006, 17).

https://doi.org/10.1017/S0269889715000204 Published online by Cambridge University Press

the fragments of the earlier Hellenistic Empiricists (Berrey 2014). But to conclude that our evidence yields little is too skeptical. Scholars ought to privilege surviving texts and fragments rather than later representations of Empiricist methodologies. For fragments from different sources show individual Empiricists reusing the same reading practices and interpreting texts in the same way. A self-identified reading community has common practices, such as collating manuscripts, that can pass unchanged through several generations. Furthermore, earlier Empiricists read a work through the *ethos* or character of the writer, mentioned by Galen. A criterion of consistency across fragments gives confidence that Hellenistic Empiricist reading culture is recoverable in a meaningful way.

Historical reading culture encompasses multiple aspects: the material objects of the page, including inks and scripts; the physical storehouses and library archives; the locations of the act of reading, bodily positions of the reader, the manner of unrolling and holding the written text; the cognitive practices of visual and aural reading; the logistical encoding of language into symbolic form; the selection of reading material, and its width and breadth; the ideological principles of authorship, textual unity, generic content; and so on.[6] But how are we to describe or analyze these? It is somehow unsatisfying to speak in terms of the ideas of the past in order to explain its history. To uncover and excavate an historical culture of reading, we must have a different arsenal of tools to hand than past people's words. Ancient Greek words for reading are very simple: they speak mostly of "the writing" when referring to any part of the document and "hearing" when referencing the act of reading.[7] Should we celebrate the comparative richness of our vocabulary for reading culture, with words like grapheme, lection, textuality, encoding, and distant reading? While our rich vocabulary might uncover some lost part of ancient reading experiences, historical accounting and explanation goes beyond nominalism.

Some scholars have argued that the difference between ancient reading and our own lies in the cognitive capabilities facilitated by the ancient practice of writing the letters without space breaks and the common but by no means universal ancient practice of reading aloud.[8] These scholars advance two interlocking theses: one, a cognitive explanation, the other, a technological explanation. But ancient Greeks did not have different brains than us so that they processed reading in a different cognitive way; the physiological process of reading was the same. I offer caution against the technological explanation. Ancient medical readers rarely paid attention to the same material objects

[6] See (Fischer 2003) for a general history of reading, (Johnson 2010) on the history of reading in antiquity, (Hutchinson 2008, 14–21) on reading strategies in anthologies, and (Mansfeld 1994, 20–47, 117–147) on the order and motivation for reading.

[7] *LSJ* s.v. γραφή II.1, II.2, II.2.d; *LSJ* s.v. ἀκούω I.4. Other terms include (for writing) λέξις "lection," λόγος "speech," ῥῆσις "phrase," and (for reading) ἀναγιγνώσκω "reading." (Svenbro 1993, 109–122; Mansfeld 1994, 193–194) are more detailed on terminology for reading.

[8] For example, Fischer (2003, 45–97), whose work on antiquity is marred by outdated scholarship (corrected in Johnson 2010) and an idiosyncratic presentation of the Phaistos Disk.

https://doi.org/10.1017/S0269889715000204 Published online by Cambridge University Press

that our own histories of the book think are important: the book as a physical object, with its pagination, the layout of the white space, the ink, the typefaces, and so on.[9] Ancient disinterest in literary technologies coupled with our own cultural fascination with technologies invites risk of anachronism; I will therefore be skeptical and avoid any explanation that attributes causal relevance to differences between historical and contemporary literary technologies.

Scholars such as William Johnson have argued, against cognitive or technological explanations for the differences in historical reading culture, that the relevant explanation lies in the sociocultural context (Johnson 2010, 3–31). After all, reading is more than a de-encoding of written documents as the eyes and tongue scan over the page and pick out the bellies and legs of letters. Reading is also a sociocultural process involving implicit evaluations of texts and contexts. The process of reading had a different meaning within Hellenistic culture, since contexts and texts were understood differently.

Central to the construction of the Empiricist reading community was the context of a medical methodology with an expansive concept of *empeiria*, "experience," using traditional sources of empirically-derived knowledge, such as observation, memory, testimony, and analogical reasoning. Empiricist *empeiria* encompassed three named parts: observation and memory in *autopsia* "one's own experience," testimony in *historia*, and analogical reasoning in *metabasis* (Galen *Subf.Emp.* 3, 4 = Empiricist fr. 10b p.48.4–11, p.50.10–18 D). Extant fragments show each of these methodologies in use. Empiricists defined any communicative act describing *autopsia* whether oral or written from another physician as *historia*.[10] While for us knowledge taken from another person differs from knowledge from a book, the Empiricists construed both as testimony taken on trust. Since little oral *historia* survived from generation to generation, Empiricists appeared even to the ancients as a reading community: Empiricists "desire to read everything written by notable doctors" (Galen *Comp.Med.Loc.* 13.188K = Empiricist fr. 60 D). According to Galen, Empiricists evaluated the credibility of the author of *historia*. In this argument from *ethos* Galen contrasts the trustworthiness and friendship toward the truth of Hippocrates against the haughtiness and lack of experience of the doctor Andreas, a Rationalist and an opponent of the Empiricists' medical philosophy (Galen *Subf.Emp.* 8 = Empiricist fr. 10b, p.69.10–28 D). Note that both authors

[9] Some Hellenistic written poetry was concerned to make visible its material form (Bing 2008, 10–48). Galen *Comp.Med.Loc.* 12.423–425K, *Ind.* 33–37 BJP also highlights the material form of some pharmaceutical recipes when collected within parchment codices.

[10] With (Deichgräber 1965, 317) I treat Empiricist exegesis as a tool in their evaluation of *historia*. There are scattered references to *historia* in Celsus *Praefatio* 36, Galen *Sect.Int.*, *Med.Exp*, and [Galen] *Intr.* The general testimonia (Deichgräber 1965, 126–128) collects about Empiricist *historia* from these sources correspond to the fuller presentation of Galen *Subf.Emp*. Here Galen defines *historia* as a communication of *autopsia* (Galen *Subf.Emp.* 8 = Empiricist fr. 10b, p.65.30–66.6 D). Galen offers a further reification of *historia*, quoted from the late Empiricist physician Menodotus but said to be based on the custom of previous physicians: they called all that was written in books *historiae* (Galen *Subf.Emp.* 8 = Empiricist fr. 10b, p.67.2–8 D).

https://doi.org/10.1017/S0269889715000204 Published online by Cambridge University Press

transmit written *historiae*; the trust (or lack of trust) Empiricists expressed in each was a product of their writings, not Empiricists' personal contact with the authors.

To explain why Empiricists revered Hippocrates we must recover not only a history of Empiricist reading practices but also a history of Empiricist readers' beliefs: why Empiricists read, what they gathered from their reading. Since the investigation must consider a history of the anthropological space connecting practices and beliefs, I propose to focus on the ideological principles of authorship, textual unity, and generic content within the ancient system of writing. Here excavating historical reading culture requires an anthropological concept that lies at the level of historical readers' beliefs from their sociocultural context: trust, a concept already encountered in Empiricist reading culture. To anticipate my conclusions, I will argue that the Empiricist conception of testimony taken on trust elided the modern distinction between personal and institutional targets of trust by treating Hippocratic writings as revelatory of the moral character of Hippocrates as an author. Hippocrates' moral character as an honest witness who accurately observed empirical phenomena aligned with the epistemic virtues of an empirical medical community who believed that medical knowledge came from personal experience.

The argument proceeds in two parts. The first describes the ideology of ancient reading and the practices of the Hellenistic Empiricists; the second analyzes why Empiricist physicians appealed to Hippocrates' authority.

I.

The leading essay in the history of reading as an ideological history of different contexts is a piece by the late twentieth-century French philosopher Michel de Certeau, who was interested in the way that consumers create meaning within society. He presents an image of reading within our post-Enlightenment society.

> In the eighteenth century, the ideology of the Enlightenment claimed that the book was capable of reforming society, that educational popularization could transform manners and customs, that an elite's products could, if they were sufficiently widespread, remodel a whole nation. This myth of education inscribed a theory of consumption in the structures of cultural politics . . . The idea of producing a society by a "scriptural" system has continued to have as its corollary the conviction that, although the public is more or less resistant, it is moulded by (verbal or iconic) writing, that it becomes similar to what it receives, and that it is imprinted by and like the text imposed on it. (De Certeau 1988, 166–167)

De Certeau's image is that the reader is the passive recipient of texts from the producers. The reader consumes and does not produce; the reader is assimilated to the producer's intended effect. De Certeau continues: "The result of class ideology and technical blindness, this legend [sc. of consumption] is necessary for the system that distinguishes

https://doi.org/10.1017/S0269889715000204 Published online by Cambridge University Press

authors, educators, revolutionaries, in a word 'producers', in contrast with those who do not produce" (De Certeau 1988, 167). In De Certeau's image neither the reader nor the act of reading itself have the ability to demand more of the text.

Worrying about the effects of media on education is not new, of course. In his dialogue *Phaedrus*, Plato presents a series of conversations between Socrates and the young man Phaedrus who read speeches about love and craft their own speeches. The *Phaedrus*'s influential critique of rhetoric echoed from the Hellenistic world to the Roman empire (Hunter 2012, 1–37, 151–184). Ancient Greek literary culture productively grappled with the *Phaedrus*'s contrast between oral and written products of speech to the point that any coded reference to the *Phaedrus*'s cicadas and pleasant stream alluded to a Greek cultural debate about poetic inspiration, literary imitation, and the correct means of reading canonical exemplar texts. So Plato's analysis of reading in the *Phaedrus* is an excellent touchstone for ancient ideologies of reading in the Hellenistic period as well. Medical texts appear prominently in the *Phaedrus*. In *Phaedrus* 268a-c, Socrates makes Phaedrus agree that a doctor is not simply someone who has read medical books. Rather, a true doctor knows how long and how much to treat a patient and also knows how to educate a student with oral advice. To Plato, reading is empiricism without understanding. Since Plato demanded that knowledge includes some kind of rational account (Schiefsky 2005, 344–374), reading was therefore at best an incomplete knowledge. Plato goes on in the *Phaedrus* to polemicize against writing itself. Plato writes a myth in which an Egyptian god critiques the other's invention of writing.

> For writing offers a forgetfulness for learners in their minds because of a lack of care for memory: they remember not internally on their own but because of trust in writing, outside, from external symbols. You [Theuth] have made a cure not for memory but for reminding . . . You [Phaedrus] would think that [speeches] would know how to say something but they only say one thing, always the same thing. Whenever it is written, the whole speech circulates around everywhere among those who understand and also among those to whom it ought not come; it does not know how to say to them what it must and must not say. Out of touch and unjustly abused it needs its father's help. For it cannot defend nor help itself. (Plato *Phaedrus* 274e-275a, 275d-e)[11]

In Plato's telling, writing is like a to-do-list, an aid to reminding. The book is a dumb object, capable of one-way communication without response. For the text only says one thing, again and again. The book is a ghostly substitute for the live author. Reading forgoes true learning at the expense of being reminded.

[11] The *Phaedrus*'s critique of writing has been the locus of many modern discussions, from deconstructionism and anxieties of presence, to colonialist reading of Greek discourse about Egypt (Vasunia 2001, 137–182), to historians of philosophy on Plato's privileging oral speech and dialectic over writing (Yunis 2011, 223–243). My treatment is far from exhausting this rich passage.

https://doi.org/10.1017/S0269889715000204 Published online by Cambridge University Press

At first glance it may appear that Plato anticipates de Ceteau's image of readers as consumers, manipulated by written media. Yet Plato's *Phaedrus* problematizes retrojecting the Enlightenment image of readers as consumers onto the ancient Greco-Roman past. There is a crude divide between the way that ancients and moderns present the social status of the reader and the process of reading. In de Certeau's modernist image, the non-elite reader has no power over his consumption. By contrast, Plato viewed the process of reading as a kind of consumption but ascribed the power of consumption to the reader himself. Plato's critique of reading and knowledge does not track a social distinction between elite and non-elites; Plato does not envisage the non-elite reader of De Certeau's scriptural system. To underscore the historical divide between the social status of readers and the image of the process of reading, the reading practices of Hellenistic Empiricists were shared among ancient Greco-Roman elite reading cultures even while Empiricists compared themselves to non-elite artisans (Hanson 2010; Johnson 2010, 180–192). Reading as consumption in antiquity was not equivalent to non-elite education. Rather, Plato recognizes the ability of the knowledgeable reader to demand more of a text than it can present on behalf of an author when he declares that the text "does not know how to say what it must and must not say." At least in Plato's story the reader remains alive to other possibilities and frustrated by the limits of the technology of writing: there is more to the process of education than being reminded by reading.

If there is a discontinuity between Plato and de Certeau in the image of the reader, there is a continuity in how both view the process of reading. Features we associate with writing are already present in Plato's analysis, if unremarked. The text is stable and has not been changed. The author intended a certain meaning which the text conveys, even if that meaning comes among improper readers. Plato's process of reading (what Enlightenment society shared) de Certeau calls consumption-by-receptacle (De Certeau 1988, 167). This clunky phrase evokes the image of a package coming in the mail: the outer shell is handled by other people but the inner contents pass from sender to receiver untouched by the outside world. Likewise, the process of reading as consumption-by-receptacle conveys meaning from author to reader without problems.

We now have a sketch of how reading operated within the ancient system of writing. Reading was a consumption-by-receptacle, where the ancient reader attempted to establish the author's original intent. The reader's effort in this regard depended on the accurate transmission of text. Today in an age of photocopying and mechanical reproduction, we have little difficulty believing that the book we read is an accurate copy of its exemplar. But before printing presses all written documents had to be copied by the hand of an individual scribe. Irregularities might creep in, because of the scribe or the papyrus material itself or a defective copy. Ancient readers developed strategies to certify that a text was authentic. One reading strategy is comparing multiple copies of the same document, technically called "collation."

A strange story about authorship and authenticity featuring the library of Alexandria highlights the Empiricists' reading practice of collation. The Ptolemaic kings of Egypt

https://doi.org/10.1017/S0269889715000204 Published online by Cambridge University Press

aimed to have the library collect all the books in the world at that time; but historians are rightly skeptical about their having done so.[12] At any rate, among the books collected in the library were Hippocrates' works. Near the end of the third or the beginning of the second century BCE papyrus copies of Hippocrates' *Epidemics* appeared that had strange markings (Galen *Hipp.Epid.III* 17A.600–613K). *Epidemiai* means "visitations" in Greek; the treatise is a description of the case histories of various patients seen by the itinerant physician. The markings were a combination of normal letters and symbols perhaps representing combinations of letters. The markings came to Alexandria from a manuscript copy of Hippocrates' *Epidemics* owned by a certain obscure doctor. Rumor had it that he wrote them in or his text was mistakenly copied. Alexandria at the time, so the story goes, collected all written material from any travelers and copied it by royal order. The original (newly titled according to the owner's name and origin) went into book storehouses rather than directly to the libraries; a copy of the original was given to the traveler.

Whatever their origins, a physician named Zeno thought that Hippocrates himself had written the markings (von Staden 1989, 501–505).[13] Zeno claimed that the markings served as a mnemonic device. The symbols helped Hippocrates remember the particulars of the cases without lengthy explanations. The *Epidemics* were valuable because of the specificity of their empirical information but on that account simultaneously difficult to set to memory. The detail, specificity, and mass of observations in the *Epidemics* threatened to overwhelm their usefulness or readers' attempts at constructing coherence. For Zeno, the marking allowed Hippocrates to remember specifics of the *Epidemics*: the cipher string of markings representing words functioned as an aide-mémoire. The physician simply memorized the sequence of letter markings to remember Hippocrates' observations of patient cases and outcomes.

Two Empiricists quickly opposed Zeno's claims to the authenticity of the markings. The more important was an Empiricist named Apollonius Byblas, or Apollonius the Bookworm (Galen *Hipp.Epid.III* 17A.618–619K = 86.16–87.16 Wenkebach = Empiricist fr. 342 D). His name, doubtless a gift from later readers, represented his actions. Apollonius the Bookworm's case against Zeno depended on two points: first, that the markings did not appear in other copies of *Epidemics* and, second, that Zeno had

[12] (Johnstone 2014) is the most recent paper to debunk myths about the Alexandrian library. I agree that ancient libraries were political institutions of power for authority and control. Yet libraries were also places of safekeeping and preservation, a neglected theme important for the sociology of knowledge. My telling of the *historia tōn charaktērōn* "history of the markings" focuses on how ancient doctors (Galen included) represented and thematized textual preservation. Previous scholarship includes (Fraser 1972, 1.376–377; Smith 1979, 199–202; von Staden 2006; Zadaronjyi 2013, 392–94).

[13] Zeno's mnemotechnic system following the alphabet resembles the system of Aristotle *De Memoria* 452a.12–26. I thank James Patterson for the parallel. See (Sorabji 1972, 31–33) for explanation of Aristotle's system for recollection. Since (Frede 1990) has drawn attention to "memorism" as the ancient description of Empiricist *autopsia*, it is unlikely that the Empiricists objected to Zeno's memorist vision of Hippocrates. For Empiricists on Hippocrates' own aim of committing the *Epidemics* to memory, see Galen *Med.Exp.* 101 Walzer, Empiricist frr. 331 D, 337 D = Heraclides F82 Gu, and fr. 353 D.

https://doi.org/10.1017/S0269889715000204 Published online by Cambridge University Press

changed the markings from what appeared in the Alexandrian library. Apollonius the Bookworm, a native of a city far from Alexandria ([Galen] *Intr.* 14.683K = Empiricist fr. 6 D), sought diverse papyrus rolls to compare against Zeno's text of the markings. He consulted papyrus rolls in the library at Alexandria and the storehouses that held textual material taken from landing ships. He also consulted an earlier doctor's edition of Hippocrates' text (von Staden 2006, 22–25). Apollonius the Bookworm found the markings in none of these texts. For this reason he denied that the markings were authentic to the Hippocratic text.

Why are the names, dates, and places of these copies of Hippocrates' text important? I suggest that Apollonius the Bookworm was thinking of them not simply as copies, but rather as objects born at a certain place and time. When he compared these objects deposited in different places and at different times he expected to find that they were exactly the same, that is, the copying was accurate. Ancient readers took to collating texts in order to establish their accuracy.

There is a debate about when the Greeks began to practice collation. Scholarly attention has focused on the ancient editions of Homer, since the Homeric *scholia* preserve evidence about the activities of the chief Alexandrian grammarians. Homerists debate which ancient grammarian ought to be credited priority in collation.[14] Regardless of priority, collation as a critical reading practice was securely established by the early-to-mid second century BCE when Apollonius the Bookworm worked. The cultural practice of depositing multiple copies in various locales produced a reading practice of comparing those documents when the authenticity of the text was in question.

Apollonius the Bookworm invoked these cultural reading practices in his argument against Zeno: Zeno failed to accurately transmit Hippocrates' writing. The fault lay with Zeno, not the technologies of the ancient writing system. If the markings were authentic Zeno ought not to have altered the marking sequence; if they were authentic, the markings ought to have been preserved in other copies. But Zeno's case for the markings' authenticity failed both of these criteria. At stake for Apollonius the Bookworm was the accuracy of copies; the entire story concerns the fixedness and immutability of authoritative written texts. (It is worth remembering that in the middle of his story Galen digresses on Ptolemy Euergetes' acquisition of the Athenian state copies of the three great tragedians: he thematizes the fixedness of authoritative

[14] (West 2001, 46–85) has argued that only the later grammarians Callistratus (fl. 2nd century BCE?) and Didymus (fl. 25 BCE) securely collated manuscripts. By contrast (Nagy 2004, 75–109) has argued that Aristarchus (fl. 200 BCE) collated manuscripts. (Rengakos 2002) is a good overview of the main lines of argument. I incline to the traditional view that collation antedates 200 BCE, since Σ.Iliadem 9.222b "[Aristarchus] found the text circulating in many editions" indicates that Aristarchus collated manuscripts. But we should also think beyond the explicit evidence of grammarians and Homeric *scholia*: since many ancient documentary texts such as Greek political treaties, public honors, and wills list their places of instauration or deposit, I would prefer to see collation as a long-standing reading practice whose origins are as old as multiple written copies.

https://doi.org/10.1017/S0269889715000204 Published online by Cambridge University Press

written texts throughout the story.) Apollonius the Bookworm's reading practices were intended to assess the reliability of writings under discussion.

Why should readers trust the text they are reading? Since reading is a sociocultural process, texts are embedded in the evaluation of other social actors such as authors, sources, transcribers, and archivists. Writing and reading are seen as part of a larger system of trust. The sociologist Anthony Giddens has enunciated an influential distinction between targets of trust: personal or institutional trust (Sztompka 2000, 41–42). Personal trust describes personal relationships between individual social actors that are more important than a systemic trust in a certain social practice. Institutional trust privileges social roles, systems, and the function of social bodies in establishing trust. The modern peer-review system, in which credentialed peers in the field review and suggest revisions to papers before publication in reputable journals, is a system of trust predicated on standardized systems and social roles.[15]

Apollonius the Bookworm's reading practices are an example of institutional trust. He reposed trust not so much in the document in front of him as the known social roles within his culture that allowed for preserved and accurate written transmission of documents. He supposed that all qualified readers would share the same institutional trust in their experience within the ancient system of writing: the social role of copyists, the materials of papyrus rolls and inks, the consistent appearance of strange letter forms, and the availability of fixed papyrus copies of individual authors in libraries and book collection depots. The story about Apollonius the Bookworm therefore has broader implications for the reading practices of Empiricists and how they constructed the authority of Hippocrates. The reading culture in this case was the Empiricists' curious obsession with the authenticity of texts; the Empiricists shared the practices of collating diverse documents. Empiricists trusted the Alexandrian libraries, the book collection depots, and the earlier doctor's edition of Hippocrates to preserve the fixed text of previous authorities. The geographical and temporal spread of these fixed texts allowed the reading practices of collecting and comparing for collation. The reading practice of collation secured the attribution of preserved writing to the ascribed author.

Collation involves ideas of authorship, authenticity, and textual unity. We might call these the contexts of reading. I turn now to the interpretations of texts, such as how to understand an author's characteristic style and vocabulary. We might call these the contents of reading. Reading practices of context and reading strategies of content are different sides of the same coin, since neither the author's characteristic style nor the notion of the text's unity ascribed to the author can be fully separated from each other.

[15] Scholars do not agree about the classification of forms of trust in cases of testimony. (Shapin 1994, 7–40), the historian of science whom I follow, supposes that they are forms of institutional trust; (Sztompka 2000, 46–51), the sociologist who consistently argues that humans and not institutions or systems stand behind trust, supposes that trust in testimony is a form of second-order trust in actors.

https://doi.org/10.1017/S0269889715000204 Published online by Cambridge University Press

Consider the reading strategies for content of one particular Empiricist named Zeuxis, who lived about the same time as Apollonius the Bookworm.[16] Zeuxis' influence within the Empiricist community makes him a good exemplar for Empiricist reading practices. Zeuxis wrote several commentaries on different medical texts by Hippocrates that propagated strategies of reading content. He thought that the commentator must provide an interpretation of a passage that was consistent in its context (Galen *Hipp.Epid.VI* 217.18 Wenkebach = p.410.9–15 D); he collated papyri, emended transmitted texts rarely, and criticized other commentators for not preserving the transmitted reading (Galen *Hipp.Prorrh.* 16.636–7K = 73.8–20 Diels = Empiricist fr. 332a D; Smith 1979, 159; von Staden 2006, 36–37); and worked to explain semantic expressions characteristic of an author. To be illustrative I will discuss only the reading strategy of understanding an author's characteristic style and vocabulary.

Hippocratic commentators often faced terse, riddling passages in the texts they consulted. Consider the following Hippocratic passage: "The shinings of infants/youths (*hai tōn nēpiōn eklampseis*), who undergo puberty, possess even other changes" (Galen *Hipp.Epid.VI* 17A.826–27K = 20.17–21.9 Wenkebach = Empiricist fr. 351 D; von Staden 2006, 39). I have translated the term at question (*tōn nēpiōn*) two ways: whatever did Hippocrates mean by infants/youths? Despite the obscurity of the passage Zeuxis maintained the text of the manuscript; other evidence suggests this was his usual practice. In his textual conservatism Zeuxis was much like Apollonius the Bookworm.[17] The obscurity of the passage was not an impediment to Zeuxis' understanding of it.

[16] There are by my count thirty-three testimonia and fragments of Zeuxis, who is preserved almost entirely as a commentator on Hippocrates. See the following Empiricist fragments in (Deichgräber 1965: 316 (cf. Galen *Gloss.* 19.108K in *apparatus*), 319, 332a, 332b, 337, 343, 345, 346, 350, 351, 354, 355, 357, 358, 359, 360, 361, 365, and Zusätze 243.33 (=fr.354), 244.33 (=fr.356), 245.26 (=fr.358), 245.31 (=fr.358), 358a, 359a, 359c, 360a, 360b, 361 (=fr.361), 361a, 361b. There are three passages not in Deichgräber: Galen *Comp.Med.Loc.* 12.834K (pointed out by Kudlien 1972); Galen *Hipp.Epid.VI* p.347.17 Wenkebach; Galen *Hipp.Epid.VI* p.387.27 Wenkebach. (Deichgräber 1965, 25–28, 209) dated Zeuxis' *floruit* to "um Christs Geburt." (Kudlien 1972) argued for a date during the second century BCE. (Von Staden 2006) places him as a contemporary of Glaucias fl. 175 BCE. (Stok 2008) returns to Kudlien's date. The latest author Zeuxis cited is Glaucias, who himself disagreed with Zeuxis in Galen's commentary on Hippocrates *Epidemics* 6: Glaucias' citation of Zeuxis suggests that Zeuxis flourished with Glaucias (Empiricist Zusätze 245.31 (=fr.358) D; von Staden 2006, 41). Zeuxis recorded a history of the controversy surrounding the markings in Mnemon's copy of Hippocrates' *Epidemics* 3. If Zeuxis only explained the interpolations of Mnemon then a date of the early second century BCE would accord with Glaucias' established *floruit*. Yet it is difficult to believe that Galen relies on Zeuxis' overview of the controversy about the markings for his knowledge only of Mnemon's interpolations. Galen's introductory comment, "What I am going to say has been said by Zeuxis in the first book of his commentaries on the present book," is ambiguous; cf. Empiricist frr. 345, 346 D where Zeuxis is said to have refuted previous exegetes of *Epidemics* 3. If Zeuxis had explained both the interpolations of Mnemon and, as seems more likely, the subsequent controversy through the Herophilean Zeno and the Empiricists Apollonius the Elder fl. 175 BCE and Apollonius Byblas fl. 150 BCE, he would have lived some time in the middle of the second century BCE. I agree with (von Staden 2006, 30; von Staden 2009, 154) that Zeuxis likely wrote commentaries only on treatises thought to be authentic.

[17] Galen refers to Zeuxis numerous times as an exemplar of *hoi palaioi*, the ancient commentators on Hippocrates, who preserve a particular manuscript reading: "Auch diese Lesart gehört wahrhaftig zu den alten Lesarten und dies zeigt dir der Umstand, daß auch Zeuxis sie kennt" (Empiricist Zusätze 360b D). In eight passages Zeuxis is

https://doi.org/10.1017/S0269889715000204 Published online by Cambridge University Press

Many Greek speakers used *nēpia*, the word at question, to mean new-borns up to perhaps 5 years old. (Etymologically *nēpia* is equivalent to the Latin *infans*, "not-speaking.") Yet usage from older Greek medical writers indicated that *nēpia* meant children up to the age of puberty. Zeuxis adopted older medical writers' testimony to interpret Hippocrates' usage of the word. Zeuxis' argument about the correct explication of "the shining of youths" is an example of explaining an author from his own usage, since Hippocrates' characteristic vocabulary ought to be understood from examples within his own texts. In scholarship this principle of reading became known as the "Homer from Homer," so-called because literary critics in ancient Alexandria used it to explain doubtful passages of the Homeric epics (Mansfeld 1994, 204–205; von Staden 2006, 26).

Another passage shows Zeuxis using again the Homer from Homer (Galen *Hipp.Epid.VI* 17A.992–3K = 113.28–114.14 Wenkebach = Empiricist fr. 354 D; von Staden 2006, 43–44). An Empiricist doctor named Glaucias emended a Hippocratic text. Glaucias had added a string of negatives to a passage describing properties of a spleen. He thought that the spleen could not experience these properties simultaneously. Glaucias' reading strategy was to interpret a scientific text in accord with contemporary scientific knowledge. Since what the text said was impossible by nature, the text should be changed. The text's author Hippocrates could not have been at error. But Zeuxis thought Glaucias' reading strategy wrong. Glaucias failed to collate other papyrus copies so as to establish the transmitted text and failed to explain Hippocrates from himself. Zeuxis said that it was not necessary to understand these properties simultaneously in one spleen as if in a single patient. It was true that the spleen can experience each of these properties. For Hippocrates had written these things for his own recollection, just as he had done in other diseases, as a listing of symptoms. In this instance, Zeuxis' reading strategy of Homer from Homer is opposed to Glaucias' reading strategy of interpreting a scientific author in accord with contemporary scientific knowledge.

In general Zeuxis held that a word's meaning depended on an author's own use. This reading strategy in turn was predicated on institutional trust in the transmission of textual authenticity. To compare this particular text of Hippocrates to others implied that those other texts really were by Hippocrates. Zeuxis' reading strategies for the content of Hippocrates' writings implied that Hippocratic texts were authentic, the papyrus copies were verbally precise, and meaning intended by the author existed and

said to preserve the old or true reading of a Hippocratic text (Empiricist frr. 332, 351, 345, 346, 354, 355 D and Zusätze 360b, 361b). In four passages Galen refers to Zeuxis' different lection of the text as a possible genuine variant (Empiricist Zusätze 359a, 360a, 361, 361a D). In two passages Zeuxis keeps the same letter forms but understands either a different diacritical mark or a transposition of letter forms (Empiricist frr. 358, 361 D). In two passages Galen quotes Zeuxis' consultation of mutiple papyrus copies: in these passages Zeuxis gives two readings, explains his preference, and offers an interpretation of the passage (Empiricist Zusätze 358a.25–27, 361.30–33 D). One text does show Zeuxis altering a Hippocratic text (Galen *Hipp.Aphr.*7.70 18A.186–87K = Empiricist fr. 365 D; I follow the emended text of von Staden 1989, 83).

https://doi.org/10.1017/S0269889715000204 Published online by Cambridge University Press

could be communicated. Apollonius the Bookworm's reading practices of context and Zeuxis' reading strategies of content belong to the same anthropological space.

So far we have discussed reading strategies of context and content from two Empiricists who read and wrote about the middle of the second century BCE. Use of these reading practices constituted an Empiricist reading community since two other Empiricists seventy-five years later continued their use. One was Heraclides of Tarentum, who around 75 BCE attempted to explain an obscure passage (now an ancient variant) in Hippocrates' *Epidemics* 2, a case of the after-effects of a woman's childbirth (Galen *Hipp.Epid.II* 231.37–233.36 Pfaff = Empiricist fr. 337 D = Heraclides F82 Gu; Smith 1979, 150–151, 203; von Staden 2006, 39–40). The following chart shows the received text and Heraclides' change.

Original text	Changed text
πρὸς τὸ ἀφροδίσιον αἱ οὐραὶ ἔβλεπον *pros to aphrodision hai ourai eblepon* "The tails looked for copulation."	πρὸς τὸ Ἀφροδίσιον αἱ θύραι ἔβλεπον *pros to Aphrodision hai thurai eblepon* "Her doors looked at the temple of Aphrodite."

Heraclides went about changing the text by first collating papyri rolls to establish the transmitted text. He then explained the interpretation of previous commentators: they thought the passage referred to the nature of the patient. "Her tails looked for copulation" indicated her readiness to have sex again after giving birth. Finally, Heraclides presented his own reading of ΘΥΡΑΙ "doors" for ΟΥΡΑΙ "tails" and τὸ Ἀφροδίσιον "the temple of Aphrodite" for τὸ ἀφροδίσιον "copulation." (Before the invention of miniscule letters ΤΟ ΑΦΡΟΔΙΣΙΟΝ was polyvalent; our differentiation between τὸ Ἀφροδίσιον "the temple of Aphrodite" and τὸ ἀφροδίσιον "copulation" is a typographical convention to distinguish sense.) Heraclides' reading "Her doors looked at the temple of Aphrodite" indicated nothing about the nature of the patient but was instead the address of her house.[18] Since Hippocrates often mentions the location of his patients' houses when discussing individual cases, in Heraclides' change we find another example of the reading strategy Homer from Homer.

Galen records Heraclides' explanation about how the textual change from ΟΥΡΑΙ to ΘΥΡΑΙ could be attributed to technological failures in the ancient writing system.

> [Heraclides of Tarentum] says: 'Perhaps ΘΥΡΑΙ [*thurai*] was written with Θ, but when its middle line disappeared the copyist thought ΟΥΡΑΙ [*ourai*] had been written.' For it is thus indeed possible that when a small fiber of papyrus had been lost this line was destroyed too or a moth ate it or right at the start the line had been written unclearly

[18] Since *thura* can also be a slang term for vagina (Henderson 1991, 138), Heraclides' change could arguably mean the same as "her tails looked for copulation." But two facts oppose this interpretation: first, Heraclides' plural is unexpected in this sense; second, Galen is at any rate clear that Heraclides understood the phrase to be a location.

https://doi.org/10.1017/S0269889715000204 Published online by Cambridge University Press

and became faded in time (Galen *Hipp.Epid.VI* 17A.794–5 = 4.10–15 Wenkebach = Empiricist fr. 338 D = Heraclides F83 Gu).

We rarely see ancient medical readers making explicit the material objects of the ancient writing system. Heraclides' point here seems to be that crumbling papyrus rolls pose many challenges to readers but that using the reading strategy of Homer from Homer can solve technological gaps. Ancient readers prioritizing reading strategies over material technologies adds weight to the skepticism expressed above: the relevant differences between ancient and modern reading do not lie in literary technologies.

II.

Minutiae of ancient medical reading tire even sympathetic modern readers. Since Empiricists only emended when the text was in doubt or Hippocrates' scientific authority seemed to be undermined (von Staden 2002; von Staden 2006, 39), aren't these emendations a tempest in a teapot? True. But the fact that Empiricists defended Hippocrates' authority in every obscurity is the point. Empiricists read Hippocrates' texts carefully and intensively. Heraclides for example was motivated by the serious belief that the text contained medically accurate and still relevant empirical observation and therapeutic advice. Apollonius the Bookworm, Zeuxis, Heraclides, and the other Empiricists all read Hippocrates. Obscure passages did not shake their enthusiasm for Hippocrates.

Why Hippocrates? Scholarship's traditional answer is that the Empiricists saw Hippocrates as a forerunner of their own medical methodology: knowledge derived from experience with a therapeutic focus (Deichgräber 1965, 298–301, 317–322; Stok 1993, 613–617). The traditional answer explains a great deal of evidence. In contrast to all other medical philosophies circulating in the Greek world after the death of Alexander the Great, the Empiricists believed that a doctor's personal experience led directly to therapy. Doctors had no need for a complex account of theoretical knowledge about the world and human body; what mattered was personal experience. For the Empiricists, personal experience had a wide compass, including the results of reading. Recall that Plato viewed the process of reading as a mere knack without a rational account; knowledge does not emerge from reading. But Empiricists viewed reading as a kind of knowledge acquired by experience. A single Empiricist physician could therefore supplement his experience by reading, also a kind of experience. In contrast to Galen's later account, testimonia of the Hellenistic Empiricists almost never show them using the agreement of previous written authorities as a kind of collective empiricism; they read Hippocrates alone.[19] For Empiricists Hippocrates was

[19] Galen's account of Empiricist *historiae* (Galen *Subf.Emp.* 8 = Empiricist fr. 10b, p.67.8–69.28 D) fails to correspond to the evidence. According to Galen the Empiricists used a combination of quantitative and qualitative

https://doi.org/10.1017/S0269889715000204 Published online by Cambridge University Press

the previous physician who had recorded his own experiences without a theoretical account.[20] Since certain treatises in the group of writings ascribed to Hippocrates have a more empirical bent, it is no surprise that Empiricists read particularly these treatises. This may explain why so much of the evidence about Empiricist reading practices comes from Galen's commentaries on the Hippocratic *Epidemics.* The traditional answer privileges the medical philosophy of empiricism of the Empiricists in explaining why they read Hippocrates.

Considering the role of historical reading culture shows up both the strengths and the limitations of the traditional answer. Empiricists continued to believe that Hippocrates offered relevant medical knowledge and shared a common set of reading practices. And yet the reasons the Empiricists read Hippocrates changed and the authority Empiricist readers gave Hippocrates changed. Already by 175 BCE Empiricists read Hippocrates

factors – such as listing the agreement of previous authorities, comparing the physician's own experience to that reported by previous authorities, and ranking the trustworthiness of previous authors – in order to establish a well-grounded sense of expectation about the truthfulness of any purported fact. Yet the only passages of Empiricist readings of *historiae* fully structured according to Galen *Subf.Emp.* 8 are Empiricist fr. 175 D = Heraclides F43 Gu, Empiricist fr. 337 D = Heraclides F82 Gu, and Galen *Med.Exp.* 109–110 Walzer. Despite the fragmentary state of Empiricist evidence, it is striking that only Heraclides' discussions of *historia* follow Galen *Subf.Emp.* 8. While the evidence for Heraclides as the primary source for Galen's account of *historia* in *Outline of Empiricism* is circumstantial, it would not be surprising if it was a later Empiricist, such as Heraclides, who advocated a structured reading of *historiae* by calling for a quantitative approach of cataloguing previous authorities' views. A quantitative interpretation of the methodological principle of *historia* could have only occurred in conjunction with the widespread availability of social services of archives and booksellers for centralized aggregation of written texts.

[20] Most obviously Galen *Hipp.Epid.VI* 17B.94K = 174.20–24 Wenkebach = Empiricist fr. 356 D, discussed below. I offer two pieces of further evidence that Empiricists thought that Hippocrates was a physician who recorded his own experiences. First, a general comment that highlights Empiricists commentators' reading strategies: "Well, some Empiricists read these things and said that it happens in general, as the remaining texts (*logoi*) are understood by them. Indeed, they even show not only in this book but also in many others that Hippocrates by one or two items clearly seems to teach general statements in these items, whenever what is taught is different than items of the same kind" (Galen *Hipp.Off.Med.* 18B.844K = Empiricist fr. 321 D). Second, Galen's presentation of the defense of a generic Imperial-period Empiricist: "I am surprised at the Sophists of our age, who are unwilling to listen to the word of Hippocrates when he says: 'in the case of food and drink experience is necessary,' and are not content to accept for themselves and their followers an opinion concerning which the generality of men are completely unanimous, to say nothing of the *elité*" (Galen *Med.Exp.* 108–109 Walzer). Empiricists clearly thought that Hippocrates recorded valid experiences by using particular examples. Moreover, Empiricist comments survive almost exclusively on Hippocratic texts that are intended for an audience of fellow-physicians, filled with the practice or observation of medicine: *Use of Liquids*, *Regimen in Acute Diseases*, *Nature of the Child, On Places in Man, In the Surgery, On Joints, Mochlicum, Prognostic, Prorrhetic, Epidemics* 1–6 (no Empiricist testimonia survive in relation to *Epidemics* 7), *Aphorisms*. Notably lacking are the rhetorical treatises (a citation from *On the Art*, Erotian υ10 = Empiricist fr. 312 D, likely belongs to the Herophilean Bacchius of Tarentum rather than the Empiricist Heraclides of Tarentum), the theoretical treatises (*Airs, Waters, Places; On Ancient Medicine*; *On the Nature of Man*), as well as the so-called Cnidian treatises (*Diseases II*, *Diseases in Women*). Empiricists denied that Hippocrates wrote on anatomy, which Empiricists considered useless (Galen *Hipp.Art.* 18A.524K = Empiricist fr. 311 D). Nonetheless we cannot exclude the possibility that our surviving evidence presents a distorted and selective picture since the Empiricists Philinus of Cos, Glaucias, Heraclides of Tarentum, and Apollonius of Citium all wrote lexicons to Hippocrates (Erotian 5.5–11 Nachmanson) and may have drawn from Hippocratic works other than what extant evidence records.

https://doi.org/10.1017/S0269889715000204 Published online by Cambridge University Press

due to his proto-Empiricism (Galen *Hipp.Epid.VI* 17B.94K = 174.20–24 Wenkebach = Empiricist fr. 356 D / p.409 section 244.33 D = Heraclides F91 Gu; Smith 1979, 165; von Staden 2006, 44–45). In *Epidemics* 6.3.16, the Hippocratic author's remark "someone might think this" is an example of logical reasoning that was contradicted by his experience. To Empiricists readers who commented on the passage, including Glaucias, Zeuxis, and Heraclides of Tarentum, the Hippocratic author's rejection of reason over experience implied that Hippocrates was an Empiricist. Hippocrates was *homopsēphon* "casting the same vote" in the sectarian dispute between Rationalists and Empiricists. So this is what the traditional answer gets right: Empiricists consistently thought that Hippocrates was a forerunner of their empirical medical method.

Yet one hundred years later, by 75 BCE, Empiricists read Hippocrates not only for his medical method but also for his noble character. An Empiricist contemporary of Heraclides of Tarentum named Apollonius of Citium trusted the person of Hippocrates. In his preserved treatise on Hippocrates Apollonius portrayed the character of Hippocrates positively. He claimed that his character was noble and trustworthy. He called Hippocrates "friend-of-truth," praised him as "most divine," and claimed it was not the character of Hippocrates' soul to neglect to mention even therapies that were ineffective (Ap.Cit. *Hipp.Art.* 82.12–29, 84.14–88.5 K-K; Kudlien 1989, 361–362, 370–371). Apollonius introduces the famous consideration of incurability in Hippocrates' *On Joints* 58 by stressing Hippocrates' thoroughness, caution, and transparency:

> In order that he [Hippocrates] not seem to work in vain he detailed precisely resettings that do not stay in place and so adds with caution: "One might say that these sort of things are outside of medicine. For why must we examine incurable cases?" (Ap.Cit. *Hipp.Art.* 86.14–17 K-K)

By detailing all cases of resetting, including the incurable, Apollonius asserted that Hippocrates would not have misled his readers with a positive therapy for the resetting of the femur. Moreover, Apollonius quotes with approval a passage in which Hippocrates recorded and explained therapeutic failings: "I wrote this for a reason: those things are good science, that when tried and seem to fail, [explain] why they failed" (Ap.Cit. *Hipp.Art.* 84.26–27 K-K). In these passages Hippocrates wrote of his own failures.[21] Failure in therapy might have meant loss of social standing. Hippocrates' willingness to admit to failure even at the expense of his own standing showed that he was, indeed, a friend of truth. Hence Apollonius credited Hippocrates with a noble character (Ap.Cit. *Hipp.Art.* 84.14–17, 92.26–94.3 K-K). Reading culture added something to the authority of Hippocrates, beyond his implicit medical philosophy. The traditional

[21] Other ancient lay readers, such as Plutarch and Quintilian, also credited Hippocrates with honesty for publicizing his failures (Kudlien 1989; Jouanna 1999, 352–353).

https://doi.org/10.1017/S0269889715000204 Published online by Cambridge University Press

answer ignores the role of Empiricist reading culture in constructing Hippocrates' authority.

But what aspect of historical reading culture is explanatorily relevant for the construction of Hippocrates' authority? Prior explanations in the contextual terms of the philosophical debate between medical sects only go so far: Heinrich von Staden has emphasized the relative rarity with which Hellenistic Empiricists or Rationalists explicitly appropriated Hippocrates as a proto-Empiricist or proto-Rationalist (von Staden 2006). Explanations that might pick out the literary technologies of the ancient writing system also founder, since the technologies of the ancient writing system did not change substantially during the Hellenistic period. If not objects, what of practices? The continuity of Empiricist reading practices of context and reading strategies of content, while important in their own right for the documentation of an elite reading community, does not explain the change. More promisingly, some previous scholarship has supposed that the read material is explanatorily relevant.[22] If true, the seeds of a biographical reading of Hippocrates' character might lie in the pseudepigraphic writings ascribed to Hippocrates, such as the *Letters* or *The Embassy*. Unfortunately no evidence yet exists that Hellenistic collected works of Hippocrates began with a biography or that Empiricists referred to the pseudepigrapha.[23] With such limited evidence, I offer an explanation unique to the Empiricists: the Empiricists' understanding of *historia* as knowledge taken on trust equivalently from persons and books is explanatorily relevant.

The anthropological notion of trust within reading culture offers space for considering how Empiricists enlarged Hippocrates' authority. Apollonius of Citium and Heraclides of Tarentum, both flourishing circa 75 BCE, appear to be endowing Hippocrates with personal trust. But this cannot be the case in a strict sense. Personal trust is a relationship between individuals who know each other (Sztompka 2000, 41). Hippocrates, the historical doctor and putative author of the treatises ascribed to him, had died at least 250 years before Heraclides and Apollonius. Heraclides and Apollonius endowed Hippocrates the doctor with moral authority because of his writings. Consider again Heraclides' change of *ourai* to *thurai*. In our analysis Heraclides emerged as a particular kind of reader of Hippocrates. Heraclides interpreted the passage within an intensive reading culture involving collated papyri, previous commentators, the ancient reader's knowledge of the conditions and circumstances surrounding ancient writing and its transmission, and reading strategies of understanding textual content.[24] So as a reader of Hippocratic texts Heraclides appeared to trust the technologies

[22] (Mansfield 1994, 30) has noted that late antique reading culture began with the author's biography; (Smith 1990, 7.n14) holds that pseudepigraphic and biographical texts important for the development of Hippocrates' *persona*, such as *The Embassy* and *Speech at the Altar*, were included in the Hippocratic Corpus during this time.
[23] Mansfeld's (1994, 182.n329) speculation includes biographies of Hippocrates only for the collected works of Hippocrates in the Imperial period. I have found no references to the Hippocratic pseudepigrapha among Hellenistic Empiricist fragments.
[24] Intensive reading reads closely the same text again and again, whereas extensive reading reads widely over genres and titles (Fischer 2003, 255).

https://doi.org/10.1017/S0269889715000204 Published online by Cambridge University Press

of papyrus rolls, inks, and reed pens and the social role of copyists. Through these literary technologies and social roles Heraclides trusted the medical observations of Hippocrates himself. But since "trust belongs to humans and not natural discourse" (Sztompka 2000, 21), at stake for Heraclides was not a trust in material objects but a trust in the individual author. The trust Heraclides had in Hippocrates the person was mediated through the material book objects and the processes of reading.

Consequently any analytical attempt to assign a type of trust to Empiricist reading culture founders on the discontinuity between ancient and modern. Empiricist readers did not recognize a distinction between medical knowledge taken on trust between books and persons. Authors' writings stood for the author himself in an important way. The conditions of Empiricist reading within the system of ancient writing configured the author's character; Empiricist reading culture was a culture of trust regarding the author's character. Giddens' reductive dichotomy between institutional and personal trust has taken on concomitant associations in an effort to define characteristics of modernity that prove unhelpful for our purpose (Sztompka 2000, 11–14, 41–44). Within Giddens' modern typology, testimonies taken as trust from an individual or a book would be classed as personal trust and institutional trust respectively, yet Empiricists elided this very distinction between targets of trust. The Empiricist conception of testimony taken on trust operative within their reading community elided the modern distinction between targets of trust by treating Hippocratic writings as revelatory of the moral character of Hippocrates as an author.

The explicit moral discourse of extant Empiricist testimonia is thin but revealing. As we have seen Hippocrates is often said to speak the truth (Galen *MM* 10.271K = Empiricist fr. 103 D) and be its friend. Empiricists used the word *chrēsimon* "good, useful" in a specific sense. Heraclides of Tarentum's reading methodology tried "to bring his explanations [of Hippocrates] to the good (*to chēsimon*)" (Galen *Hipp.Epid.III* 17B.619K = 87.13–15 Wenkebach = Empiricist fr. 342 D). Galen scolds Lycus of Macedon, a much later author with Empiricist tendencies, for failing to "seek what is the good (*ta chrēsima*) for medical practice" (Galen *Hipp.Epid.I* 17A.505K = Empiricist fr. 309 D) when Lycus' reading of Hippocrates' looked for similar patients across treatises instead of focusing on conditions and treatment. Empiricist readers aimed to elucidate what was useful for medical work, a reference to their philosophical claim of empirical observation with a focus on therapy. Previous scholarship has noted that Empiricist experience was the repeated passive visual observation of nature (von Staden 1975). The moral virtues necessary for repeated passive visual observation are not stated in the surviving Empiricist testimonia but, insofar as virtues govern actions, are readily apparent from the methodological principles comprising *empeiria*. The observer must have keen eyes, a solid memory, a willingness to observe without active intervention, the ability to pick out both individual differences and patterns, and a full and accurate report. Accuracy, patience, and honesty are the epistemic virtues of a good witness whose testimony the Empiricist reader might adopt. Hippocrates, author of *Epidemics*, *Aphorisms*, *Prorrhetic, In the Surgery*, among others – texts of acute detailed observation,

https://doi.org/10.1017/S0269889715000204 Published online by Cambridge University Press

with records of therapeutic successes and failures – had these requisite epistemic virtues to serve as a witness for what was good (*ta chrēsima*) for empirical medicine.

Reading creates intimacy and authority between authors and readers. It is a literary commonplace that the practice of reading brings the past back to life so that authors and characters become alive in readers' minds; its genealogy can be traced back at least to the heroic morality of *kleos aphthiton* "imperishable glory" in Archaic Greece (Homer *Iliad* 9.186–189; Svenbro 1992, 8–25). The conditions of an institutional trust in the system of writing with its literary technologies for preservation and authenticity, the shared social practice of readers, and the *prima facie* credibility of the author when the author is a target of trust enable such a phenomenon. A belief-relation of readers about the enlarged reliability and literary character of authors who stand on their own authority without authorizing divine Muses can emerge from those conditions. Hippocrates' written works on medical therapeutics and observations offer up to readers a scientific author who stands on his own moral authority with epistemic virtues relevant for transmitting personal experience of observation. There was no divide between knower and knowledge; rather scientific competence was a reflection of Hippocrates' character. Hippocrates offered to Empiricist readers what was good (*ta chrēsima*) for Empiricist medicine because Hippocrates intended his writings to bear witness for empirical medicine. Ancient Empiricist readers reflected the author's intended meaning back onto the author's character. Heraclides and Apollonius therefore had trust in Hippocrates the proto-Empiricist because material objects of the book, reading practices of context, reading strategies of content, and their initial belief that Hippocrates' writings contained genuine medical empiricism enabled them to act as if they knew Hippocrates' personal character. Empiricist readers enlarged Hippocrates' moral authority as an author.

So why Hippocrates? I will describe the dynamic in reverse. In a complex historical development Empiricists endowed Hippocrates with a specific moral authority by claiming that he was noble and a friend of the truth. Since Empiricists had no personal interaction with a dead author, they constructed a moral authority based on the epistemic virtues of accuracy and honesty in his writings by using several reading strategies that they shared, such as interpreting the author from his own usage. Reading strategies were predicated on the belief that the texts transmitted of the author were authentic and verbally accurate. Empiricists chose to read Hippocrates' transmitted writings because of their initial belief that his writings contained genuinely useful medical knowledge: his writings, they thought, were a forerunner of their own medical philosophy of using medical knowledge derived from experience for a therapeutic focus. The Empiricist reading community united institutional trust in the structures of the ancient writing system with the personal trust of the read author to produce an enlarged moral authority for Hippocrates.

The Empiricist story about the origins of medicine is a story about reading. The ancients saw this too. Erotian in the earliest extant lexicography of Hippocratic vocabulary authorizes a chronological review of his predecessors by citing Heraclides'

https://doi.org/10.1017/S0269889715000204 Published online by Cambridge University Press

and Apollonius' disparate knowledge of the earliest Hippocratic lexicographers (Erotian 4.24–27 Nachmanson = Empiricist fr. 311 D). Empiricists were intensive readers of Hippocrates and his commentators, so Empiricists authorized a particular culture of medical reading. When Empiricists read other sect physicians, medical authority did not follow authorship for the simple reason that other authors were not medical Empiricists.[25] Empiricists credited other sectarian physicians only as readers who witness a transmitted text, attest to linguistic usage, or share in the social roles of the ancient writing system. Empiricist reading culture combined a medical ideology of empiricism with knowledge from the written work taken on the personal trust of the read author.

We might believe that Empiricist understandings of Hippocrates' *persona* were superficial. Who today reading the Hippocratic Corpus believes that its authors were strict empirics? Yet Empiricists wanted to ground their medical philosophy with a story of origins. The origins of medical Empiricism came through the *persona* of Hippocrates. Medical enthusiasm for Hippocrates' character and medical philosophy is Hippocratism (Smith 1979, 204–215; Jouanna 1999, 348–361). Empiricists were certainly enthusiasts for Hippocrates. Empiricist reading practices helped make Hippocratism and medicine itself Hippocratic. The Empiricist reading of medicine's past gave medicine a certain character for its future. Galen's Hippocratism and reading practices for one owed more than historical curiosity to the reading culture of early Empiricism, despite his antagonism toward his predecessors (von Staden 2009). While a fuller accounting of this process might contextualize the development of Hippocrates' authority and character in conjunction with the biographical canonization of classical Greek poets such as Homer, we have seen an essential element by which a biographical reading of Hippocrates' character developed. For the Empiricist reading community was engaged in developing a history of medicine through their historically specific forms of reading. After all, any history of medicine is also an episode in the history of reading.

Acknowledgments

Audiences in San Diego, California, and Oxford, Ohio, as well as the reviewers for *Science in Context* gave helpful suggestions. I also thank David Riesbeck for his many detailed and insightful comments.

References

Berrey, Marquis. 2014. "Early Empiricism, Therapeutic Motivation, and the Asymmetrical Dispute Between the Hellenistic Medical Sects." *Apeiron* 47(2):141–171.

[25] I differ on this point with (von Staden 2006), who does not distinguish between Rationalists' capabilities as ancient readers and medical theorists.

https://doi.org/10.1017/S0269889715000204 Published online by Cambridge University Press

Bing, Peter. [1988] 2008. *The Well-Read Muse*. Ann Arbor: Michigan Classical Press.
Daston, Lorraine. 2012. "The Sciences of the Archive." *Osiris* 27:156–187.
Deichgräber, Karl. 1965. *Die griechische Empirikerschule: Sammlung der Fragmente und Darstellung der Lehre*, 2nd edition. Berlin: Weidmannsche Verlagsbuchhandlung.
Fichtner, Gerhard, et al. 2013. *Corpus Hippocraticum: Biographie der hippokratischen und pseudohippokratischen Werke*, erweiterte und verbesserte Ausgabe, März 2011. Corpus Medicorum Graecorum / Latinorum. http://cmg.bbaw.de/online-publikationen/hippokrates_2013_02.pdf (last accessed 29 December 2013).
Fischer, Steven. 2003. *A History of Reading*. London: Reaktion Books.
Fraser, Peter. 1972. *Ptolemaic Alexandria*, 3 vols. Oxford: Oxford University Press.
Frede, Michael. 1990. "An Empiricist View of Knowledge: Memorism." In *Epistemology: Cambridge Companions to Ancient Thought*, edited by Stephen Everson, 225–250. Cambridge: Cambridge University Press.
Guardasole, Alessia. 1997. *Eraclide di Taranto: Frammenti, testo critico, introduzione, traduzione e commento*. Napoli: D'Auria.
Hanson, Ann Ellis. 2010. "Doctors' Literacy and Papyri of Medical Content." In *Hippocrates and Medical Education*, edited by Manfred Horstmanhoff, 187–204. Leiden: Brill.
Henderson, Jeffrey. 1991. *The Maculate Muse: Obscene Language in Attic Comedy*. Oxford: Oxford University Press.
Hunter, Richard. 2012. *Plato and the Traditions of Ancient Literature: The Silent Stream*. Cambridge: Cambridge University Press.
Hutchinson, Gregory. 2008. *Talking Books: Readings in Hellenistic and Roman Books of Poetry*. Oxford: Oxford University Press.
Johnson, William. 2010. *Readers and Reading Culture in the High Empire: A Study of Elite Reading Communities*. Oxford: Oxford University Press.
Johnstone, Steve. 2014. "A New History of Libraries and Books in the Hellenistic Period." *Classical Antiquity* 33(2):347–393.
Jouanna, Jacques. 1999. *Hippocrates*, translated by Malcolm B. DeBevoise. Baltimore: Johns Hopkins.
Kudlien, Fridolf. 1972. "Zeuxis (7)." In *Real-Encyclopädie der classischen Altertumswissenschaft*, edited by August Pauly, Georg Wissowa, et al., vol. 2.19, 386–387. Stuttgart: J.B. Metzler.
Kudlien, Fridolf. 1989. "Hippokrates-Rezeption im Hellenismus." In *Die hippokratischen Epidemien. Theorie-Praxis-Tradition*, edited by Gerhard Baader and Rolf Winau, 355–376. Stuttgart: Sudhoffs Archiv.
Kühn, Carl Gottlieb. 1821–1833. *Claudii Galeni Opera Omnia*. Lipsiae: Car. Cnoblochii.
LSJ = Liddell, Henry George, and Robert Scott. 1996. *A Greek-English Lexicon*, 9th edition, revised by Henry Stuart Jones, supplement edited by P.G.W. Glare. Oxford: Oxford University Press.
Mansfeld, Jaap. 1994. *Prolegomena: Questions to Be Settled before the Study of an Author, or a Text*. Leiden: Brill.
Nachmanson, Ernst. 1918. *Erotiani Vocum Hippocraticarum Collectio Cum Fragmentis*. Uppsala: Appelbergs Boktryckeri-Aktiebolag.
Nagy, Gregory. 2004. *Homer's Text and Language*. Champaign: University of Illinois Press.
Nutton, Vivian. 2012. *Ancient Medicine*, 2nd edition. New York / London: Routledge.
Rengakos, Antonios. 2002. "Review of Martin L. West, *Studies in the Text and Transmisssion of the* Iliad." *Bryn Mawr Classical Review* 2002.11.15. <http://bmcr.brynmawr.edu/2002/2002–11–15.html> (last accessed December 12, 2014).
Schiefsky, Mark. 2005. *Hippocrates On Ancient Medicine: Translated with an Introduction and Commentary*. Leiden: Brill.
Shapin, Steven. 1994. *A Social History of Truth: Civility and Science in Seventeenth-Century England*. Chicago: University of Chicago Press.

https://doi.org/10.1017/S0269889715000204 Published online by Cambridge University Press

Singer, Peter, et al. 2014. *Galen: Psychological Writings: Avoiding Distress, Character Traits, The Diagnosis and Treatment of the Affections and Errors Peculiar to Each Person's Soul, The Capacities of the Soul Depend on the Mixtures of the Body*. Cambridge: Cambridge University Press.

Smith, Wesley. 1979. *The Hippocratic Tradition*. Ithaca NY: Cornell University Press.

Smith, Wesley. 1990. *Hippocrates: The Pseudepigraphic Writings*. Leiden: Brill.

Sorabji, Richard. 1972. *Aristotle on Memory*. Providence: Duckworth.

von Staden, Heinrich. 1975. "Experiment and Experience in Hellenistic Medicine." *Bulletin for the Institute of Classical Studies* 22:178–99.

von Staden, Heinrich. 1982. "Heresy and Hairesis: The Case of the haireseis iatrikai." In *Jewish and Christian Self-Definition III: Self-Definition in the Greco-Roman World*, edited by Ben F. Meyer and Ed Parish Sanders, 76–100, 199–206. London: Fortress Press.

von Staden, Heinrich. 1989. *Herophilus: The Art of Medicine in Early Alexandria*. Cambridge: Cambridge University Press.

von Staden, Heinrich. 1992. "Lexicography in the third century B.C.: Bacchius of Tanagra, Erotian, and Hippocrates." In *Tratados hippocráticos (Estudios acerca de su contenido, forma e influencia): Actas del VIIe colloque international hippocratique (Madrid, 24–29 de septiembre de 1990)*, edited by Juan Antonio López Férez, 549–569. Madrid: Universidad Nacional de Educación a Distancia.

von Staden, Heinrich. 2002. "A Woman Does Not Become Ambidextrous: Galen and the Culture of the Scientific Commentary." In *The Classical Commentary: Histories, Practices, Theory*, edited by Roy Gibson and Christina Kraus, 109–140. Leiden: Brill.

von Staden, Heinrich. 2006. "Interpreting 'Hippokrates' in the 3rd and 2nd centuries BC." In *Ärzte und ihre Interpreten: Medizinische Fachtexte der Antike als Forschungsgegenstand der Klassischen Philologie*, edited by Carl Werner Müller, Christian Brockmann, and Carl Wolfram Brunschön, 15–47. Leipzig: K.G. Saur.

von Staden, Heinrich. 2009. "Staging the Past, Staging Oneself: Galen on Hellenistic Exegetical Traditions." In *Galen and the World of Knowledge*, edited by Christopher Gill, Tim Whitmarsh, and John Wilkins, 132–156. Cambridge: Cambridge University Press.

Stok, Fabio. 1993. "La scuola medica Empirica a Roma. Problemi storici e prospettive di ricerca." In *Aufstieg und Niedergang der Römischen Welt*, edited by Wolfgang Haase, vol. 2.37.1, 600–645. Berlin: Walter De Gruyter.

Stok, Fabio. 2008. "Zeuxis." In *The Encyclopedia of Ancient Natural Scientists: The Greek Tradition and its Heirs*, edited by Paul Keyser and Georgia Irby-Massie, 848. New York: Routledge.

Svenbro, Jesper. 1993. *Phrasikleia: An Anthropology of Reading in Ancient Greece*. Ithaca NY: Cornell University Press.

Sztompka, Piotr. 2000. *Trust: A Sociological Theory*. Cambridge: Cambridge University Press.

Vasunia, Phiroze. 2001. *The Gift of the Nile: Hellenizing Egypt from Aeschylus to Alexander*. Berkeley: University of California Press.

West, Martin. 2001. *Studies in the Text and Transmission of the Iliad*. München: K.G. Saur.

Yunis, Harvey. 2011. *Plato: Phaedrus*. Cambridge: Cambridge University Press.

Zadorojnyi, Alexei. 2013. "Libraries and *paideia* in the Second Sophistic: Plutarch and Galen." In *Ancient Libraries*, edited by Jason König, Katerina Oikonomopoulou, and Greg Woolf, 377–400. Cambridge: Cambridge University Press.

https://doi.org/10.1017/S0269889715000204 Published online by Cambridge University Press