

Introduction: Plato's Timaeus as Universal Text

ἔδοξεν γὰρ ἡμῖν Τίμαιον μὲν, ἅτε ὄντα ἀστρονομικώτατον ἡμῶν καὶ περὶ φύσεως τοῦ παντὸς εἰδέναι μάλιστα ἔργον πεποιημένον, πρῶτον λέγειν ἀρχόμενον ἀπὸ τῆς τοῦ κόσμου γενέσεως, τελευτᾶν δὲ εἰς ἀνθρώπων φύσιν.

We decided that *Timaeus* shall speak first because he is the most learned of us in astronomy and has especially made it his task to know about the nature of the All. Beginning with the birth of the cosmos, he will finish with the nature of humans. Plato, *Timaeus* 27a3–6

Of Plato's dialogues, the *Timaeus* has had the most constant and pervasive presence in the intellectual cultures of Europe and the Middle East. Its partial translation into Latin by Cicero (106–43 BCE) and Calcidius (c. mid. third or early fourth century CE) made it the only Platonic text accessible to medieval readers without Greek before the twelfth century.¹ Owing to its complex transmission into Arabic, it also appears to have been the dialogue with which pre-modern Islamicate thinkers were best acquainted.² Modern interpreters have pointed to the 'fluidity' of the language and imagery of the eponymous *Timaeus*' monologue, which seems to accommodate diverse readings, as one possible reason for the enduring appeal of a work often not ranked among Plato's most

¹ On these Latin translations and their contribution to the medieval reception of Plato in western Europe, see, e.g., Somfai (2002); Lévy (2003); Burnett (2012); Sedley (2013); Hoenig (2018).

² On the transmission of the Platonic corpus into Arabic, see below (pp. 22–4). In this book, I use the adjective 'Islamicate', which was coined by Marshall Hodgson (1974: vol. I, 57–60), to designate societies, cultures, and peoples in regions where Muslims are politically and culturally dominant. 'Islamicate' does not refer directly to the religion of Islam but rather to the 'social and cultural complex historically associated with Islam', which is found both among Muslims and non-Muslims (Hodgson 1974: vol. I, 59). This term is especially relevant to my study as Chapter 2 centres on a member of the Church of the East, Hunayn ibn Ishāq, and Chapter 5, a Jew, Moses Maimonides. I give Islamic calendar dates (with the Gregorian calendar equivalents following) for all the Islamicate figures mentioned in this book because it was the official dating system used in the majority-Muslim areas where they were working.

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metaphysically important compositions.³ In particular, the dialogue's depiction of a supreme craftsman god (the Demiurge, *dēmiourgos*), who caused the world to 'become' (*gegonen*, 28b7), invited adherents of Judaism, Christianity, and Islam to draw connections with their monotheistic creation accounts.⁴ More recently, physicists and philosophers of science have recognized in the *Timaeus* a cosmology that not only anticipates the Big Bang theory but also wrestles with the same issues at the centre of contemporary speculations about the universe, such as its uniqueness and the contingency of the events occurring in it.⁵

In the passage quoted in the epigraph above, the character Critias draws attention to the extraordinarily ambitious scope of *Timaeus*' ensuing speech: it aims to cover everything, the world and its contents.⁶ The broad range of material that the dialogue encompasses certainly accounts for its rich history of reception outside natural philosophy (namely, 'physics'), which ancient sources list as its subject.⁷ Astronomers, musicologists, and mathematicians, among others, found in the text details pertinent to their own interests.⁸ The *Timaeus*, however, is 'no mere collection of bits of information'.⁹ Plato's narrative links together the parts of the cosmos by sketching out different causal, analogous, or homologous relationships between them: for instance, the composition of the four elements out of triangles explains their transformations (56c8–57d6) as well as why living things age (81b4–d4); the movement of harmonious music is similar to the orbits of the heavens and the soul (47b5–e2); and the metaphysical principle of space has the same function as a uterus or a perfume base (50d2–4, 50e4–8). These

³ Reydam-Schils (2003), 13. See also Celia and Ulacco (2012), vii. See Owen (1953), 95, who asserts that the *Timaeus* has overshadowed the 'more sophisticated metaphysics' of the 'profoundly important late dialogues' such as the *Philebus*. Sharples and Sheppard (2003: 1) write that the low estimation of the *Timaeus* has ancient precedent.

⁴ Niehoff (2007) argues that the dialogue created textual communities among Christian and pagan readers, who respectively championed literal and metaphorical readings of its cosmogony.

⁵ See Brisson and Meyerstein (1995); Leggett (2010).

⁶ As Mohr (2010: 1) observes, this comprehensive narrative unfolds over the course of just sixty-five pages.

⁷ The Alexandrian grammarian Aristophanes of Byzantium (c. 265–190 or 257–180 BCE) arranged the Platonic dialogues into trilogies, the first of which seems to have contained texts dealing chiefly with physics: *Republic*, *Timaeus*, and *Critias* (Tarrant 1993: 106). See *PHP* 9.9.3 (De Lacy 2005: p. 598 l. 10), where Galen states that the *Timaeus* gives an 'account of the natural world' (*physiologia*). Cf. Albinus (second century CE), *Prol.* 5.25–9, and Proclus (fifth century CE), *In Ti.* I 1.17–20, both of whom relate that the dialogue's enquiry into nature includes theological matters.

⁸ On the use of Plato's *Timaeus* by pre-modern and early modern astronomers, mathematicians, and musicologists, see Gregory (2003); Barker (2003); Allen (2003); Prins (2014).

⁹ Reydam-Schils (2003), 4.

connections appear to signify that the domains of knowledge concerned with the aforementioned phenomena – geometry, physics, biology, etc. – are not self-sufficient but ‘entangled’.¹⁰ Moreover, as I will mention below, the dialogue’s own reflection on the epistemological status of its narrative, which it famously calls an *eikōs logos* or *mythos* (‘a likely account or myth’), suggests that these very domains are not fixed but alterable.

Among the many ancient readers of the *Timaeus* who responded to the text’s fluidity, Galen of Pergamum (129–c. 216 CE), after Hippocrates the most famous doctor of Graeco-Roman antiquity, was one of the most significant and provocative. This book is about Galen’s reading of the *Timaeus*, and about the reception of that reading in the Middle Ages, mainly in the Islamicate world. It makes two key arguments: first, that Galen was the first to seize on the potential in the *Timaeus* to reimagine the discipline of medicine.¹¹ While doctors before Galen engaged with Plato’s *Timaeus*, he is unprecedented in his use of the dialogue to conceptualize not only aspects of human physiology but also the boundaries of medical knowledge, which he shows a distinctive concern to define.¹² I situate Galen’s anxiety about the epistemic topography of this discipline in the context of the broader rivalry between medicine and philosophy that had been ongoing since Plato but whose stakes were raised in the agonistic climate of the Second Sophistic. At the root of the competitive displays of learning (*paideia*) characteristic of the period of the Second Sophistic (c. 60–230 CE) were struggles for power – including wealth, political office, and socio-cultural prestige – that resulted in the re-creation or reinscription of group identities (ethnic and professional, for example).¹³ Besides rewards such as increased patronage, Galen, this book maintains, turned to

¹⁰ I adopt Barad’s (2007) concept of ‘entanglement’, which denies an inherent separation between entities in the world. For Barad, entanglement does not ‘mean just any old kind of connection, interweaving, or enmeshment in a complicated situation’ (160), but rather speaks to a relational ontology, in which boundaries and properties become determinate when ‘cuts’ are made between what is included or excluded from consideration during acts of observation (or any way of knowing). While Barad is primarily interested in the relations between material bodies, her framework (or as she calls it, ‘onto-epistem-ology’) does not assume an intrinsic difference between ‘human and nonhuman, subject and object, mind and body, matter and discourse’ (185).

¹¹ On my use of ‘discipline’, see pp. 10–12 below.

¹² For example, Polito (2013) discusses how the doctor Asclepiades of Bithynia (first century BCE) developed his atomistic theory of matter in response to the Platonist Heraclides of Pontus’ (fourth century BCE) interpretation of the dialogue’s account of the geometrical shapes of the four elements.

¹³ On the Second Sophistic, see Bowersock (1969); Anderson (1993); Gleason (1995); Swain (1996); Whitmarsh (2001, 2005). Cf. Eshleman (2012) and Dench (2017), who encourage a new approach to the Second Sophistic that does not see Greekness but rather profession as the foundational concern of its identity dynamics.

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the *Timaeus* to invest medicine with epistemic authority – the right, long enjoyed by philosophy, to define, describe, and explain the different domains of reality – and thus to enhance the standing of his own profession. Galen's youthful training in philosophy made him uniquely qualified to leverage the dialogue's model of knowledge to redraw the boundaries of medicine; his education also equipped him to anticipate the critiques of philosophers, for whom the text was a visible site for working out sectarian doctrine and identity.¹⁴

Galen does not comment on whether his disciplinary project gained traction among his contemporaries, perhaps because the degree of its success is irrelevant to his self-presentation, which he crafts through a rhetoric of exceptionalism. The further entrenchment of medicine's lowly position in late antique and medieval hierarchies of knowledge appears to testify to Galen's failure to revise the epistemic landscape. The second argument developed in this book is that Galen's project and its significance cannot fully be understood without considering its medieval reception in Arabic writings. The Islamicate receptions studied in the second part of this book will reveal, in fact, that his disciplinary boundary work – a phrase that I borrow from science and technology studies (STS), to be explained more fully below – with the *Timaeus* was productive of new ways of thinking about knowledge categories and professional identities.¹⁵ A similar story to the one that will unfold over the bulk of this book (Chapters 2–5) could perhaps be told about the late antique Mediterranean or medieval Latin West, in which Galen was an important presence.¹⁶ I have historical and ideological reasons, however, for foregrounding medieval Islamicate responses to Galen's use of the *Timaeus*.

First, the medieval Islamicate world lends itself to a study of shifts in disciplinary thinking because the large-scale translation of scientific texts from the Graeco-Roman Mediterranean and other pre-modern societies into Arabic encouraged reflection from those living both during and after this activity on their own cultural boundaries of knowledge vis-à-vis this assimilated past. Second, in giving full attention to Islamicate actors, my aim is to redress their marginalization in medical and intellectual histories

¹⁴ For the *Timaeus*' presence in contemporary philosophical debate, see Fowler (2017) *passim* and pp. 36–8 below.

¹⁵ See pp. 11–12 below.

¹⁶ For Galen's reception in the Graeco-Roman Mediterranean during the centuries immediately following his death and in the medieval West, I refer the reader to the relevant chapters in the recent *Brill's Companion to the Reception of Galen* (Bouras-Vallianatos and Zipser 2019).

that define their historical value in terms of their preservation and transmission of a (largely) Greek past to the West.¹⁷ The point of my analysis of the four Islamicate thinkers treated in the latter half of this book – Ḥunayn ibn Ishāq (d. 260/873 or 264/877), Abū Bakr al-Rāzī (d. c. 313/925), Avicenna (d. 428/1037), and Maimonides (d. 600/1204) – is to demonstrate that they continually refigure, rather than adopt, Galen's map of medical and philosophical knowledge when seeking to establish their own authority. My examination also calls into question the adequacy of terms such as 'synthesis' and 'adaptation' for describing medieval knowledge projects such as those that form the core of this book, for, while more agentive, they still imply that the 'synthesizer' or 'adaptor' is confined by the prior system(s) in which they are working. This book hopes to stimulate a new approach to pre-modern knowledge that denies a significant disjunct between ancient and medieval 'scientific' categories and their modern counterparts, whose rhetorical nature STS research over the past thirty years has underscored.¹⁸

Although medicine wields significant cultural authority today, I argue in this introduction that the impetus behind Galen's boundary work was the discipline's inferior ranking in the epistemic hierarchies of antiquity. The first section will connect these ancient claims about medicine's inferiority to earlier, often polemically charged, observations on the contingent nature of its knowledge, as well as the social status of the majority of its practitioners. After outlining my methodological approach to 'science' as a discursive and iterative practice, I will consider how the *Timaeus* itself recognizes the dynamism of knowledge: its potential to be divided and bounded differently by each knower. Galen's philosophical training may have brought him into initial contact with Plato's dialogue, but, as I will next discuss, he exploits the text's epistemic possibilities to promote his professional identity as a doctor in contests with philosophers (both dead and living) for credibility. Finally, to preface the second part of this book, I propose that Galen's own role in interfacing Arabic readers with the *Timaeus* called for Islamicate doctors and philosophers to re-evaluate their own categories and taxonomies of knowledge, which had been shaped by late antique epistemologies.

¹⁷ Cf. Brentjes' (2012: 154–6) call for more agential histories of science in Islamic societies that give serious consideration to local contexts, individuality, and identity.

¹⁸ For now-classic studies of the rhetorical constitution of science, which are overwhelmingly centred on the modern and contemporary periods, see Gieryn (1983); Latour and Woolgar (1986); Shapin (1992); Gross (1996); Taylor (1996).

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Ancient Hierarchies of Knowledge: Medicine as a *Technē*

Most ancient, and subsequently medieval Islamicate, epistemologies put forward a pyramidal vision of knowledge, which recognizes different forms of knowing and gives some of these forms priority over others. Although medicine's classification and position in these epistemological schemes may be at the root of the struggle of doctors such as Galen to endow their expertise with prestige, it is important to note that there is no absolute consensus regarding how this unit of knowledge should be categorized. The inconsistency in the labelling of medicine across ancient and medieval writings, and even within individual authors, is one of the reasons why I find it more productive to refer to this area of knowledge as a 'discipline' – a term with ancient roots but especially modern associations, as I will explain in more detail below.¹⁹ Traditionally rendered as 'art' or 'craft', *technē* (Lat. *ars*; Arab. *ṣināʿa*) is the designation most commonly applied to medicine in Greek; as a category of knowledge, it is often distinguished from *empeiria* ('knack', 'routine') and *epistēmē* ('science', 'theoretical knowledge': Lat. *scientia*; Arab. *ʿilm*), which philosophy is usually called. The Hippocratic Corpus, in particular the tracts *On Ancient Medicine* (Περὶ ἀρχαίας ἰητρικῆς) and *On the Art* (Περὶ τέχνης), offers the earliest surviving comments on the defining characteristics of a *technē* when responding to critics who deny that medicine warrants the identification or that this kind of knowledge exists at all.²⁰ The Hippocratic idea that a *technē* utilizes a rational, teachable method to achieve a goal, and in so doing asserts control over luck (*tychē*) and nature (*physis*), anticipates – and might even have informed – Plato and Aristotle's understandings of the concept.²¹ For an activity to qualify as a *technē*, both philosophers require it to have a goal (*telos*), which determines the domain of the action, and that its practitioners be able to explain what and why they do what they do.²²

¹⁹ OLD, s.v. 'disciplina 2a'.

²⁰ See Schiefsky (2005), 5–25, and Mann (2012), 1–20, who review how these two texts respectively define the concept of *technē* and defend medicine's classification as such. See also Lloyd's (1991) discussion of the polemical targets of the two aforementioned Hippocratic treatises, *On Regimen in Acute Diseases* (Περὶ διαίτης ὀξέων), and *On the Sacred Disease* (Περὶ ἱερῆς νόσου). Craik (2015: 40, 285) dates *On the Art* and *On Ancient Medicine* to the late fifth century BCE. This dating suggests that these Hippocratic authors may be drawing on earlier sixth- and fifth-century conceptions of *technē*.

²¹ See Schiefsky (2005), 5, who states that Plato and Aristotle adopted the same notion of *technē* at the basis of *On Ancient Medicine*. Cf. Mann (2012), 1, who is more cautious about linking the Hippocratic, Platonic, and Aristotelian theories of *technē*. For the opposition between *technē* and *tychē*, see Nussbaum (2001), 89–106; on the sometimes adversarial relationship between *technē* and *physis*, see von Staden (2007).

²² There is a large amount of secondary scholarship on the meaning of *technē* in Plato and Aristotle; for good overviews of their definitions of the term, see, e.g., Isnardi Parente (1966); Rochnik (1996); Balansard (2001); Löbl (2003), 61–150, 178–264.

The ability of a *technē* to provide an account of its goal and methods is the feature that differentiates it from an *empeiria* – which, according to Plato, is unable to give a reason for each of the things that it does – but it also blurs the distinction between this form of knowledge and *epistēmē*.²³ Among the different relations that Plato sketches out between *technē* and *epistēmē*, he seems in certain dialogues to make the latter a component of the former by calling the reasoning of *technai* ‘*epistēmai*’.²⁴ Furthermore, the definition of the medical art as ‘the science of health’ (ἐπιστήμη . . . τοῦ ὑγιεινοῦ) at *Chrm.* 165c8 indicates a more radical elision of the two knowledge types in that this passage views *technē* as nothing other than an *epistēmē*.²⁵ The contrast introduced elsewhere in Plato's writings between practical and theoretical knowledge, which does not produce anything, may have stimulated Aristotle's own separation and evaluation of the categories of *technē* and *epistēmē*.²⁶ Pointing to the productive nature of *technē*, Aristotle assigns it an inferior ontological and epistemological value vis-à-vis *epistēmē* because it deals with things that change (not always systematically); thus, the instability of their subject compels practitioners to depend at times on conjecture.²⁷ The superiority of *epistēmē*, then, follows from its concern with invariable and eternal objects, which can be known with certainty through demonstration (*apodeixis*, proof by deduction).²⁸ At *Met.* 981b13–25 Aristotle also interprets the unproductivity, or uselessness (τὸ μὴ πρὸς χρῆσιν εἶναι), of *epistēmē* as a marker of its elite social status, for those who pursue it have the leisure to think about issues that will bring them little to no financial gain.²⁹

To upgrade the *technē* of medicine in the hierarchy of the arts and sciences, Galen has to confront the idea that the ontological inferiority of the body, which is a realm of change, disqualifies it from being a source of

²³ At *Grg.* 501a4–b1, Plato describes the *empeiria* of cooking as acting ‘without reason’ (*alogōs*). On the distinction between *technē* and *empeiria* in the *Gorgias* and other dialogues, see Schiefky (2005), 346–50; Levin (2014), 7–20.

²⁴ E.g., *Euthyd.* 281a4–5: ‘Furthermore, I presume that in the working connected with furniture it is theoretical knowledge that effects the right work’ (ἀλλὰ μὴν που καὶ ἐν τῇ περὶ τὰ σκευὴ ἐργασίᾳ τὸ ὀρθῶς ἐπιστήμη ἐστὶν ἢ ἀπεργαζομένη; Lamb 1924: 413 [slightly modified]).

²⁵ Isnardi Parente (1966) charts a progressive separation of the concept of *technē* from *epistēmē* in the Academy and Aristotle that eventually collapses in the Hellenistic period. For a critique of Isnardi Parente's methodology, especially with reference to her analysis of Aristotle, see Natali (2007), 5.

²⁶ See *Plt.* 258d–260a. In this text, Plato seems to use *technē* and *epistēmē* interchangeably; his concern is not to establish *technē* as being inherently more practical than *epistēmē* but to assert the existence of a kind of knowledge that is unproductive.

²⁷ See *EN* 1140a. On Aristotle's recognition of the imprecision of *technē*, see Schiefky (2005), 366–70.

²⁸ See *EN* 1139b. For Aristotle's notion of ‘demonstration’, see, e.g., *APo* 71b20–5 and Barnes (1969); Lloyd (1992); Mendell (1998); Allen (2011).

²⁹ In this passage, Aristotle seems to conflate *epistēmē* with a subset of *technai* that concentrate on theoretical questions, such as mathematics.

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demonstrative knowledge. Notwithstanding Galen's efforts to rehabilitate utility as a desirable quality of *technē*, the social stigma associated with doctors' and other craftpersons' receipt of pay for their services was hard to erase. In antiquity, work for wages was regarded as akin to slavery and therefore beneath the elite, who ideally were to draw on inherited wealth to fund their careers in politics.³⁰ Additionally, the participation of slaves, freedpersons, and foreigners in medicine, at least in the Roman world, contributed to the low esteem of the *technē*, and may account for why it was never regarded as one of the canonical *artes liberales* – 'the arts worthy of a free person'.³¹ Banned from Athens and Rome for brief intervals, philosophy had its own problems with its reputation during antiquity, but philosophers' education of the elite and, in many cases, their own elite backgrounds meant that the field did not have the same social baggage as medicine.³²

A Roman citizen with landed property, Galen is conspicuous proof that medicine was not just an occupation of the non-elite.³³ It has been argued that, long before Galen, doctors from more well-to-do families or with

³⁰ Kudlien (1976), 448; Horstmanshoff (1990), 193. As Horstmanshoff (1990: 180–1) observes, it was not until the nineteenth century that medicine was viewed as a profession of high social status.

³¹ Nutton (2004: 165) reports that three-quarters of the doctors recorded in inscriptions in the western part of the Roman Empire in the first century CE were slaves (either born into slavery or captured in war) and ex-slaves. See also Kobayashi (1988); Pleket (1995). On medicine's place among the 'liberal arts', see Kudlien (1976), 450–1; Horstmanshoff (1990), 195. The Greek precursor of the *artes liberales* was the ἐγκύκλιος παιδεία, a general education for elite youths that did not usually include medicine (see *NP*, s.v. 'enkyklios paideia'). While some elite women such as Minicia Marcella, the second daughter of the younger Pliny's friend Minicius Fundanus, were permitted by their male relatives to study the *artes liberales*, this education was intended for freeborn men (see Hemelrijk 1999: 60–1). On ancient education as an 'essentially masculine process', see Morgan (1998), 48.

³² For the social standing of philosophers in the classical and Hellenistic periods, see Korhonen (1997) and Chang (2008). The decree of Sophocles of Sounion in 307–306 BCE, which was repealed within a year, forbade philosophers to hold seminars and classes in Athens (Korhonen 1997: 75–85). In Rome, the Senate approved the expulsion of philosophers and rhetors from the city in 161 BCE; in 173 or 154 BCE two Epicurean philosophers were banished; and the emperors Vespasian and Domitian exiled philosophers in 71 (or 74), 85, and 90 CE (see Gell. *NA* 15.11 and Gruen 1990: 171–9). As Striker (1995: 54) observes, when attempting to show the respectability of philosophy to his elite Roman readers, Cicero, like Plato before him, had to address their suspicions that it was politically disruptive. Hine (2016: 15) adds that republican and early imperial Romans such as Cicero and Seneca the Younger were hesitant to apply the label *philosophus* to themselves on account of its ethnic connotations – at this time it usually described Greek professional teachers of philosophy. Because they received pay from their aristocratic clientele, philosophers were not immune from accusations of greed and chicanery; for example, they were lampooned in Greek comedy for their mercenary behaviour (see Korhonen 1997: 86–96).

³³ On the social status and wealth of Galen's family, see Nutton (2004), 216–17; Mattern (2013), 28–35. According to ancient bibliographies (on which, see Pinault 1992: 5–34), Hippocrates claimed noble descent from the Asclepiads, who traced their lineage back to the healing god Asclepius. At *Opt. Med. Cogn.* 1.3–4 (Iskandar 1988: p. 40 l. 11–p. 42 l. 6), which is extant only in Arabic, Galen alludes to medicine's divine origins to attest to the discipline's former prestige.

social ambitions in the fifth and fourth centuries BCE set out to distance themselves from their non-elite colleagues by adopting theories from philosophy.³⁴ Thus, medicine had its own internal hierarchy, which prioritized doctors who possessed the theoretical training to investigate the nature and cause of disease over those focused on identifying and subsequently treating their patients' complaints.³⁵ Galen's invocation of Plato's *Timaeus* should be viewed as a continuation of this strategy to increase the social and intellectual profile of medicine through a connection with philosophy. The ways in which this relationship was typically framed in antiquity subordinated medicine to philosophy: medicine borrows from philosophy because of a lack in its conceptual resources, or is a part of philosophy and thus not completely autonomous.³⁶ This book maintains, however, that Galen interprets the link between medicine and philosophy to imply neither a one-sided dependence nor a conflation of the two areas of knowledge. His aim is to prove that medicine can offer an equally valid – and sometimes superior – method for accessing truths about the cosmos.

Although Galen's defence of medicine starts from its assumed inferiority, philosophy did not enjoy its position as the highest form of knowledge without contest even prior to him. As Levin reveals, Plato himself treats medicine as a serious challenger for philosophy's claim to authority on nature and human flourishing (*eudaimonia*).³⁷ In response to this threat, Plato cites the primacy of the soul over the body as grounds for demoting medicine, whose domain he restricts to bodily health.³⁸ Furthermore, the doctor Eryximachus' incompetent foray into cosmology and ethics at *Symp.* 185e6–188e5, where this character not only gets previous physical theories wrong but also allows for the indulgence of unhealthy desires, calls into question medicine's right to comment on these subjects, which should fall under philosophy's jurisdiction.³⁹ Considering Plato's rivalry with

³⁴ Horstmanshoff (1990); Chang (2008).

³⁵ Plato, *Leg.* 720a–c, and Aristotle, *Pol.* 1282a4–8, famously distinguish between types of physicians: elite, non-elite, and lay. In the Platonic text the contrast is specifically between free and slave doctors. Because of the latter's inability to give a rational account (*logos*) of their activities, they practise the *empeiria* rather than the *technē* of medicine.

³⁶ Cf. Philo, *De congressu erud. gratia* §§ 141–57, which alleges that the *technai* have stolen ideas from philosophy and passed them off as their own. Cf. also Celsus, *De Medicina* pr.6–8: 'At first, the science of healing was considered a part of philosophy . . . the pupil Hippocrates of Cos, the first [doctor] worthy of mention, separated this discipline from the study of wisdom, a man marked by both his skill and eloquence' (*Primoque medendi scientia sapientiae pars habebatur . . . discipulus Hippocrates Cos, primus ex omnibus memoria dignus, a studio sapientiae disciplinam hanc separavit, vir et arte et facundia insignis*). On the philosophical origins of medicine in Celsus' history, see Mudry (1982), 63–5.

³⁷ Levin (2014) tracks this rivalry across the *Gorgias*, *Symposium*, *Republic*, and *Laws*.

³⁸ Levin (2014), 20–40, 122–8. ³⁹ Levin (2014), 73–109.

medicine, it seems especially subversive that Galen has recourse to one of his dialogues to justify his own more expansive notion of the *technē's* epistemic reach.⁴⁰ Galen never addresses the tension between medicine and philosophy in the Platonic corpus, but this silence may have more to do with his rhetorical strategy, which seeks to cast Plato as a prototype for his own blend of medical and philosophical expertise, than obliviousness on his part. Before delving into why the *Timaeus* lends itself to Galen's reworking of medicine, it will be helpful to clarify my use of the term 'discipline' to refer to medicine and philosophy.

The foregoing discussion has reviewed the ancient structuring of knowledge into categories that were assigned different epistemological, ontological, and social values. While the continued presence of terms such as *technē* and *epistēmē* in ancient discourses of knowledge gives the impression of a certain constancy in their meaning, it is important to observe that they are subject to considerable slippage, even in an author who is concerned to maintain a distinction between them, such as Aristotle. Although Aristotle regularly calls medicine a *technē* (for example, at *Met.* 1070a29, *Pol.* 1279a1, *Poet.* 1460b20, and *EN* 1097a9), in the *Prior Analytics* (26a10–13, 64a40–b28) he takes it for granted that the proposition 'medicine (*iatrikē*) is a science (*epistēmē*)' is true, and he uses it to check the validity of certain argumentative forms. Less consistent authors such as Galen contribute to this 'terminological promiscuity' (as Isnardi Parente puts it) by defining *technē* and *epistēmē* to suit their ideological purposes.⁴¹ In including philosophy in the same rank of *technai* as medicine, Galen's *Exhortation to the Arts*, for instance, makes the ability to produce demonstrative knowledge a characteristic of *technē* and therefore deprives *epistēmē* of its monopoly on this way of knowing.⁴² For this reason, I am not going to insist on strict definitions of the two terms when ancient and medieval authors do not actually adhere to their own. Instead, I want to emphasize that what these words express is a power relationship: they are devices that can be

⁴⁰ Levin (2014) does not include the *Timaeus* in her analysis. Her reading of *Laws* proposes that Plato has resolved his rivalry with medicine by acknowledging its contribution to *eudaimonia* at this late stage of his career (Levin 2014: 177–211). One of his mature dialogues, the *Timaeus* also seems to be sympathetic to medicine in that it recognizes the pertinence of the body to the study of the cosmos; however, the fact that an expert in astronomy and physics, rather than a doctor, is the source of the medical information may represent a move to subsume medicine into natural philosophy. For Plato's subordination of medicine to philosophy in the *Timaeus*, see Chapter 1 (pp. 54–6 below).

⁴¹ Isnardi Parente (1966), 1.

⁴² See *Protr.* 5.2 (Boudon-Millot 2002a: p. 88 l. 23–p. 89 l. 2), where medicine and philosophy occupy the highest level of the hierarchy of *technai*. Cf. Levin (2014), 110–41, who discusses how Plato redefines *technē* in the *Republic* to exclude medicine from this category of knowledge.